Green Chemistry Program Nomination Table

This table contains information on each unique technology nominated for the Presidential Green Chemistry Challenge from 1996 through 2016. Although EPA has received 1,714 nominations during this period, only 871 unique technologies are represented here because sponsors may nominate a technology more than once.

The columns are:

Year: The year of the most recent nomination for this technology.

Winner: The status of each nomination as an award-winning technology or a nominee. Nomination Sponsor: The sponsor or sponsors of the nomination; generally, the name of the company, academic researcher (and institution), or other organization that developed the technology.

Nominated Technology Title: The title for the nominated technology as given by the sponsor. Each title is followed by a link to the associated summary page (for award-winning technologies) or abstract (for all other technologies).

City: The city given in the nomination; this is usually the city of the headquarters for a company or primary location of an academic institution, but may be the city of a plant or research facility. In a few cases, the city is that of a consultant who prepared the nomination.

State (St.): The state given in the nomination; as for the city of nomination, this may not represent the headquarters for a company or the primary location of an academic institution.

Also, download similar information about all nominated technologies as either:

- 1. a <u>Presidential Green Chemistry Challenge Nominations (XLS)</u>(2 pp, 3 MB) (Download Excel Viewer) Exit
- 2. a Presidential Green Chemistry Challenge Nominations (CSV)(1 pg, 2 MB)

Nomination Table

Sort alphabetically or by year, use the search function, or both together.

To search, enter at least three characters in the box:

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1996 No	Advanced Micro Devices (AMD)	The Emission Quantification Model (abstract)	Austin	TX
1996 No	Bayer Corporation	Aldimine-Isocyanate Chemistry: a Foundation for Environmentally- Friendly High Solids Coatings (abstract)	Pittsburgh	PA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1996 Yes	Donlar Corporation	Production and Use of Thermal Polyaspartic Acid (summary)	Bedford Park	IL
1996 Yes	Dow Chemical Company, The	100 Percent Carbon Dioxide as a Blowing Agent for the Polystyrene Foam Sheet Packaging Market (summary)	Midland	MI
1996 No	Eastman Chemical Company	Water-Dispersible Sulfopolyester for Reduced VOC Consumer Products (abstract)	Kingsport	TN
1996 No	GE Plastics (General Electric Corporation)	New Catalyst for Producing ULTEM® Thermoplastic Resin (abstract)	Mt. Vernon	IN
1996 Yes	Holtzapple, Mark; Texas A&M University	Conversion of Waste Biomass to Animal Feed, Chemicals, and Fuels (summary)	College Station	TX
1996 No	Hudlicky, Tomas; University of Florida	Enzyme-Assisted Conversion of Aromatic Substances to Value-Added End Products. Exploration of Potential Routes to Biodegradable Materials and New Pharmaceuticals (abstract)	Gainesville	FL
1996 No	Merck & Co., Inc.	Waste Minimization in the Manufacture of an Antibiotic Produced by Chemical Synthesis (abstract)	Whitehouse Station	NJ
1996 Yes	Monsanto Company	Catalytic Dehydrogenation of Diethanolamine (summary)	St. Louis	MO
1996 No	Recombinant BioCatalysis, Inc. (RBI)	Development of a Biodiversity Search and Enzyme Optimization Technology (abstract)	Sharon Hill	PA
1996 Yes	Rohm and Haas Company	Designing an Environmentally Safe Marine Antifoulant (summary)	Spring House	PA
1996 No	Stanson Corporation	National Conversion to Low Sudsing Hand Dish Detergents for Industrial, Institutional, and Especially Consumer Application (abstract)	S. Kearny	NJ
1996 No	Taylor, Larry T.; Virginia Tech and Virginia Tech Intellectual Properties	A Nontoxic Liquid Metal Composition for Use as a Mercury Substitute (abstract)	Blacksburg	VA
1996 No	Tremco, a BF Goodrich Company	Automotive Windshield Adhesives (abstract)	Akron	ОН
1996 No	U.S. Department of Energy, Los Alamos National Laboratory	A Microwave Oven Dissolution Procedure for a Ten Gram Sample of Soil Requiring Radiochemical Analysis (abstract)	Los Alamos	NM
1996 No	U.S. Department of Energy, Los Alamos	Two-Stage Catalyst for NO _x Reduction, CO Oxidation, and Hydrocarbon	Washington	DC

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
	National Laboratory; Phillips, Jonathan; Pennsylvania State University	Combustion in Oxygen Containing Exhaust Mixtures (abstract)		
1996 No	U.S. Department of Energy, Office of Industrial Technologies Programs	The Alternative Feedstocks and Biological and Chemical Technologies Research Programs (abstract)	Washington	DC
1997 Yes	Albright & Wilson Americas	THPS Biocides: A New Class of Antimicrobial Chemistry (summary)	Ashland	VA
1997 No	Alliance for Environmental Technology (AET)	The Use of Chlorine Oxide, the Foundation of Elemental Chlorine-Free Bleaching for Pulp and Paper, as a Pollution Prevention Process (abstract)	Washington	DC
1997 No	Altus Biologics Inc.	Cross-Linked Enzyme Crystals (CLECs) as Robust and Broadly Applicable Industrial Catalysts (abstract)	Cambridge	MA
1997 No	American Chemical Corporation	Utilization of High Performance, Environmentally Compliant Chemicals: GREEN LINE Adhesive, Sealant, and Coating Technologies (abstract)	Washington	DC
1997 No	Anderson, Marc A.; University of Wisconsin- Madison	Green Technology for the 21st Century: Microporous Ceramics (abstract)	Madison	WI
1997 No	Benchmark Products, Inc.	Development of a Nickel Brightener Solution (abstract)	Indianapolis	IN
1997 Yes	BHC Company (Hoechst Celanese)	BHC Company Ibuprofen Process (summary)	Dallas	TX
1997 No	Circuit Research Corporation	A Nontoxic, Nonflammable, Aqueous-Based Cleaner/Degreaser and Associated Parts Washing Systems Commonly Employed in the Automotive Repair Industry (abstract)	Delano	MN
1997 Yes	DeSimone, Joseph M.; University of North Carolina at Chapel Hill (UNC) and North Carolina State University (NCSU)	Design and Application of Surfactants for Carbon Dioxide (summary)	Chapel Hill	NC
1997 No	Dow Chemical Company, The	INVERT TM Solvents in Aircraft Paint Stripping (abstract)	Midland	MI
1997 No	Dumesic, James A.; University of Wisconsin- Madison	Rational Design of Catalytic Reactions for Pollution Prevention (abstract)	Madison	WI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1997 No	DuPont Company	The DUCARE 'Zero Effluent' Recycle Chemistry System (abstract)	Wilmington	DE
1997 No	Eastman Chemical Company	Biodegradable Copolyester (abstract)	Kingsport	TN
1997 No	Eastman Chemical Company	Biofiltration Technology (abstract)	Kingsport	TN
1997 No	Eastman Chemical Company	Water-Dispersible Hot-Melt Adhesive Raw Material (abstract)	Kingsport	TN
1997 No	Gross, Richard A.; University of Massachusetts Lowell	Biotechnological Routes to 'Tailored' Polymeric Products of Environmental and Industrial Importance (abstract)	Lowell	MA
1997 No	Hatton, T. Alan; Massachusetts Institute of Technology	Derivatized and Polymeric Solvents for Minimizing Pollution During the Synthesis of Pharmaceuticals (abstract)	Cambridge	MA
1997 No	Henkel Corporation	Alkyl Polyglycoside Surfactants (abstract)	Ambler	PA
1997 No	Hughes Environmental Systems, Inc.	DryWash TM Carbon Dioxide Dry Cleaning Technology (abstract)	El Segundo	CA
1997 No	IBM-Austin	Elimination of Ozone-Depleting Chemicals in the Printed Wire Board and Electronic Assembly and Test Processes (abstract)	Austin	TX
1997 No	IBM-Austin	Innovative Techniques for Chemical and Waste Reductions in the Printed Wire Board Circuitize Process (abstract)	Austin	TX
1997 Yes	Imation TM Corporation	DryView TM Imaging Systems (summary)	Oakdale	MN
1997 No	King, Charles M.; University of Georgia	Biomimetic Transition Metal Complexes for Homogeneous Catalytic Reductive Dechlorination of the PCBs/One-Step Extraction- Detoxification in Subcritical and Supercritical Fluids (abstract)	Athens	GA
1997 No	Klenzoid, Inc.	Zero Discharge System For Cooling Towers (abstract)	Conshohocken	PA
1997 Yes	Legacy Systems, Inc.	Coldstrip TM , A Revolutionary Organic Removal and Wet Cleaning Technology (summary)	Fremont	CA
1997 No	Materials Technology Limited	SuperC TM , The Use of Supercritical Carbon Dioxide (abstract)	Reno	NV
1997 No	Molten Metal Technology, Inc.	Catalytic Extraction Processing (CEP) (abstract)	Waltham	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1997 No	Monsanto Company	Roundup Ready TM Technology (abstract)	St. Louis	MO
1997 No	Sandoz Pharmaceutical Corporation	A New Process for the Manufacture of Pharmaceuticals (abstract)	East Hanover	NJ
1997 No	Shaw, Henry; New Jersey Institute of Technology (NJIT)	The Replacement of Hazardous Organic Solvents with Water in the Manufacture of Chemicals and Pharmaceuticals (abstract)	Newark	NJ
1997 No	Technic, Inc.	Noncyanide Silver Electroplating (abstract)	Providence	RI
1997 No	Texaco, Inc.	CleanSystem ³ Gasoline (abstract)	White Plains	NY
1997 No	U.S. Department of Energy, Los Alamos National Laboratory	Application of Green Chemistry Principles to Eliminate Air Pollution From the Mexican Brickmaking Microindustry (abstract)	Los Alamos	CA
1997 No	U.S. Department of Energy, Los Alamos National Laboratory	Solvent Replacement and Improved Selectivity in Asymmetric Catalysis Using Supercritical Carbon Dioxide (abstract)	Los Alamos	NM
1997 No	U.S. Department of Energy, Pacific Northwest National Laboratory	DOE Methods for Evaluating Environmental and Waste Management Samples (abstract)	Richland	WA
1998 No	AlliedSignal Federal Manufacturing and Technologies	Synergy CCS TM Precision Cleaning Solvent: A Government/Industry Solution to a Complex Environmental Problem (abstract)	Kansas City	МО
1998 No	Beckman, Eric J.; University of Pittsburgh	Design of CO ₂ -Soluble Ligands for <u>Affinity Extraction Using</u> <u>CO₂ (abstract)</u>	Pittsburgh	PA
1998 No	CTS Corporation Resistor Networks	No-Clean Soldering (abstract)	Berne	IN
1998 No	Doherty, Michael F.; Malone, Michael F.; University of Massachusetts, Amherst	Reactive Distillation Technology to Reduce Waste at the Source (abstract)	Amherst	MA
1998 Yes	Draths, Karen M. and Frost, John W.; Michigan State University	<u>Use of Microbes as Environmentally</u> <u>Benign Synthetic Catalysts (summary)</u>	East Lansing	MI
1998 No	DuPont Company	NAFION Membrane Technology (abstract)	Wilmington	DE
1998 No	DuPont Company	The INFINITY Process (abstract)	Wilmington	DE

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	DuPont Polyester	<u>DuPont Petretec(SM) Polyester</u> <u>Regeneration Technology - Making</u> Polyester Evergreen (abstract)	Wilmington	DE
1998 No	E. I. DuPont de Nemours & Co., Inc.	Zero Effluent Photographic Processing in the Printing Industry (abstract)	Wilmington	DE
1998 No	Eastman Kodak Company	Polycarbonate/Polydimethylsiloxane Copolymers for Thermal Print Media (abstract)	Rochester	NY
1998 No	Eastman Kodak Company	Replacement of Methanol Solutions with Aqueous Dispersions in Photographic Coatings (abstract)	Rochester	NY
1998 No	Eli Lilly and Company	Waste Reduction During Development of a New Process for Manufacture of Pharmaceutical Products (abstract)	Indianapolis	IN
1998 Yes	Flexsys America L.P.	Elimination of Chlorine in the Synthesis of 4-Aminodiphenylamine: A New Process That Utilizes Nucleophilic Aromatic Substitution for Hydrogen (summary)	Akron	ОН
1998 No	Govind, Rakesh; University of Cincinnati	Bioconversion of Carbon Dioxide into Organic Feedstocks (abstract)	Cincinnati	ОН
1998 No	Hendrickson, James B.; Brandeis University	<u>The SYNGEN Program for Generation of Alternative Syntheses (abstract)</u>	Waltham	MA
1998 No	Lockheed Martin Tactical Aircraft Systems	Development and Implementation of Low Vapor Pressure Cleaning Solvent Blends (abstract)	Fort Worth	TX
1998 No	Lockheed Martin Tactical Aircraft Systems (LMTAS)	Implementation and Verification of Aqueous Alkaline Cleaners (abstract)	Fort Worth	TX
1998 No	MEMC Electronic Materials, Inc.	Elimination of Ozone-Depleting Chemicals Through the Use of a Water Soluble Adhesive "Green Wax" (abstract)	St. Peters	МО
1998 No	Mobil Technology Company	Production of Cumene with Zeolite CatalystThe Mobil/Badger Cumene Process (abstract)	Paulsboro	NJ
1998 No	NICCA U.S.A., Inc.	Heavy Metals Free, Non-Formaldehyde Fixing Agent for Direct and Fiber Reactive Dyes (abstract)	Fountain Inn	SC
1998 No	Nortel Technology	Molyphos: A Chromate-Free Alternative for Corrosion Protection of Metal Parts (abstract)	Raleigh	NC
1998 No	Pharmacia and Upjohn, Inc.	Environmental Improvements from Redesigning the Commercial Manufacture of Progesterone (abstract)	Kalamazoo	MI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	Phillips Petroleum Company	Reduced Volatility Alkylation Process (abstract)	Bartlesville	OK
1998 No	Praxair, Inc.	<u>Liquid Oxidation Reactor (LOR)</u> (abstract)	Danbury	CT
1998 Yes	Pyrocool Technologies, Inc.	Technology for the Third Millennium: The Development and Commercial Introduction of an Environmentally Responsible Fire Extinguishment and Cooling Agent (summary)	Lynchburg	VA
1998 No	Rochester Midland Corporation	Core Line of Cleaning Products (abstract)	Rochester	NY
1998 Yes	Rohm and Haas Company	Invention and Commercialization of a New Chemical Family of Insecticides Exemplified by CONFIRM TM Selective Caterpillar Control Agent and the Related Selective Insect Control Agents MACH 2 TM and INTREPID TM (summary)	Philadelphia	PA
1998 No	Rybarczyk, James P.; Ball State University	Premature Degradation of Coolant Oil in the Machining of Magnesium in the Automobile Industry (abstract)	Muncie	IN
1998 No	Stepan Company	Stepanfoam Water-Blown Polyurethane Foam HCFC-Free, Environmentally Friendly, Rigid Polyurethane Foam (abstract)	Northfield	IL
1998 Yes	Trost, Barry M.; Stanford University	The Development of the Concept of Atom Economy (summary)	Stanford	CA
1998 No	U.S. Department of Agriculture, Agricultural Research Service, Northwest Irrigation and Soils Research Laboratory	Polyacrylamide Technology Reduces Soil Erosion (abstract)	Kimberly	ID
1998 No	U.S. Department of Defense, Office of Munitions; U.S. Department of Energy, Weapons Supported Research; Lawrence Livermore National Laboratory	Environmentally-Driven Preparation of Insensitive Energetic Materials (abstract)	Livermore	CA
1998 Yes	U.S. Department of Energy, Argonne National Laboratory	Novel Membrane-Based Process for Producing Lactate Esters – Nontoxic Replacements for Halogenated and Toxic Solvents (summary)	Argonne	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	U.S. Department of the Navy, Office of Naval Research; U.S. Department of the Navy, Naval Surface Warfare Center; DeSimone, Joseph, University of North Carolina; Aerojet Propulsion	Use of Carbon Dioxide as an Alternative Green Solvent for the Synthesis of Energetic Thermoplastic Elastomers (abstract)	Arlingtion	VA
1998 No	U.S. Department of the Navy, Office of Naval Research; U.S. Department of the Navy, Naval Surface Warfare Center; U.S. Army Armament Research, Development and Engineering Center; U.S. Department of Energy, Los Alamos National Laboratory; Aerojet	Waste Reduction in the Production of an Energetic Material by Development of an Alternative Synthesis (abstract)	Arlington	VA
1998 No	Union Camp Corporation	C-FREE TM Pulp Ozone Bleaching Project (abstract)	Franklin	VA
1999 No	ABB Power T&D Company Inc.	Fully Biodegradable Vegetable Oil- Based Electrical Insulating Fluid (BIOTEMP TM) (abstract)	Raleigh	NC
1999 No	Akzo Nobel Business Unit Base Chemicals	A Durable Hydrodechlorination Catalyst for Selective Conversion of CCl4 to CHCl3 (abstract)	Dobbs Ferry	NY
1999 No	Akzo Nobel Sub Business Unit Phosphorus Chemicals	Next Generation Fire-Resistant Fluids (abstract)	Dobbs Ferry	NY
1999 No	American Society for Testing & Materials (ASTM)	Analysis of Liquid Hazardous Waste for Heavy Metals by Energy- Dispersive X-ray Fluorescence (EDXRF) Spectrometry (abstract)	West Conshohocken	PA
1999 No	Antia, Jimmy E.; Govind, Rakesh; University of Cincinnati	Novel In-Situ Zeolite Coatings in Monoliths (abstract)	Cincinnati	ОН
1999 No	Beckman, Eric J.; University of Pittsburgh	Metal Extraction and Recovery Using Carbon Dioxide (abstract)	Pittsburgh	PA
1999 Yes	Biofine, Incorporated	Conversion of Low-Cost Biomass Wastes to Levulinic Acid and Derivatives (summary)	Waltham	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 Yes	Collins, Terry; Carnegie Mellon University	TAM TM Oxidant Activators: General Activation of Hydrogen Peroxide for Green Oxidation Technologies (summary)	Pittsburgh	PA
1999 No	Cussler, E.L.; University of Minnesota	Pollution Preventing Lithographic Inks (abstract)	Minneapolis	MN
1999 Yes	Dow AgroSciences LLC	Spinosad: A New Natural Product for Insect Control (summary)	Indianapolis	IN
1999 No	Dow Corning Corporation	New Technology Converts Waste to Valuable Intermediates (abstract)	Carrollton	KY
1999 No	Dow Corning Corporation	Volatile Methyl Siloxanes: Environmentally Sound Solvent Systems (abstract)	Midland	MI
1999 No	DuPont Company	Reduction of Carbon Tetrachloride Emissions at the Source by the Development of a New Catalyst (abstract)	Wilmington	DE
1999 No	Geon Company, The	Increased Utilization of Raw Materials in the Production of Vinyl Chloride Monomer (abstract)	Avon Lake	ОН
1999 No	Harrell, J.W.; Lane, Allan M.; Jefcoat, I.A.; Nikles, David E.; The University of Alabama	Waterborne Coating Formulations for Video Tape Manufacture (abstract)	Tuscaloosa	AL
1999 No	Hauser, Inc.	Paclitaxel Process Improvements (abstract)	Boulder	СО
1999 No	IBM Corporation, T.J. Watson Research Center	Green Card: A Biopolymer-Based and Environmentally Conscious Printed Wiring Board Technology (abstract)	Yorktown Heights	NY
1999 No	Imation Corporation	Imation No Process Plates (abstract)	Oakdale	MN
1999 No	IMC-Agrico Company	AGROTAIN® N-(n-butyl)Thiophosphoric Triamide (abstract)	Bannockburn	IL
1999 No	International Metalizing Corporation	Non Toxic Antifouling (abstract)	Pennsauken	NJ
1999 No	Khalili, Nasrin R.; Arastoopour, Hamid; Walhof, Laura; Illinois Institute of Technology	A Novel Waste Minimization Approach: Production of Carbon-Based Catalyst or Sorbent from Biosolids (abstract)	Chicago	IL
1999 No	Ladisch, Michael R.; Purdue University	Biobased Adsorbents for Desiccant Coolers (abstract)	West Lafayette	IN
1999 Yes	Lilly Research Laboratories	Practical Application of a Biocatalyst in Pharmaceutical Manufacturing (summary)	Indianapolis	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Lin, Chhiu-Tsu; Northern Illinois University	Phosphatizing Coatings (abstract)	DeKalb	IL
1999 No	M.A. Hanna Color - Technical Center	Reducing VOC Emissions by Eliminating Painting and Labeling Operations with a New Color Laser Marking System for Plastic Parts (abstract)	Suwanee	GA
1999 No	Mallinckrodt Inc.	The Removal of Oxides of Nitrogen by In Situ Addition of Hydrogen Peroxide to a Metal Dissolving Process (abstract)		MI
1999 No	Mathews, Alexander P.; Kansas State University	Waste Biomass Utilization in the Production of a Biodegradable Road Deicer (abstract)	Manhattan	KS
1999 No	Monsanto Company	Metabolic Engineering of Crops for Commercial Production of Biodegradable Plastics (abstract)	St. Louis	МО
1999 No	Nalco Chemical Company	Nalco Fuel Tech NO _x OUT® Process (abstract)	Naperville	IL
1999 No	Nalco Chemical Company	Nalco LAZON Technology (abstract)	Naperville	IL
1999 No	Nalco Chemical Company	Nalco NALMET® Heavy Metal Removal Technology (abstract)	Naperville	IL
1999 Yes	Nalco Chemical Company	The Development and Commercialization of ULTIMER®: The First of a New Family of Water- Soluble Polymer Dispersions (summary)	Naperville	IL
1999 No	Nassaralla, Claudia Lage; Michigan Technological University	Waste Reduction and Recycling of Magnesite-Chrome Refractory into the Steelmaking Process (abstract)	Houghton	MI
1999 No	Novon International	Natural Recycling of Plastics through Chemical and Biological Degradation (abstract)	Tonawanda	NY
1999 No	Paquette, Leo A.; The Ohio State University	Environmental Advantages Offered by Indium-Promoted Carbon-Carbon Bond-Forming Reactions in Water (abstract)	Columbus	ОН
1999 No	Peretti, Steven W.; North Carolina State University	Biosynthetic Production of p- Hydroxybenzoate Improves Regiospecificity and Minimizes Byproduct Generation (abstract)	Raleigh	NC
1999 No	Polaroid Corporation; Warner, John C.; University of Massachusetts Boston	Environmentally Benign Supramolecular Assemblies of Hydroquinones in Polaroid Instant Photography (abstract)	Waltham	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Radiance Services Company	The Radiance Process: A Quantum Leap in Green Chemistry (abstract)	Bethesda	MD
1999 No	Raghavan, Dharmaraj; Howard University	Design of Rubberized Concrete from Recycled Rubber Tires (abstract)	Washington	DC
1999 No	Raghavan, Dharmaraj; Howard University	Novel Applications of Polymer Composite from Renewable Materials (abstract)	Washington	DC
1999 No	Richard H. Fish, Lawrence Berkeley National Laboratory, University of California	Fluorous Biphasic Catalysis: A New Paradigm for the Separation of Homogeneous Catalysts from Their Reaction Substrates and Products, as Demonstrated in Alkane and Alkene Oxidation Chemistry (abstract)	Berkeley	CA
1999 No	Rogers, Robin D.; University of Alabama	Green Separation Science and Technology: Using Environmentally Benign Polymers to Replace VOCs in Industrial Scale Liquid/Liquid or Chromatographic Separations (abstract)	Tuscaloosa	AL
1999 No	Rowe, H. Alan; Norfolk State University	New Reducing Sugar Assay (abstract)	Norfolk	VA
1999 No	SaLUT Inc.	<u>Chemically Modified Crumb Rubber</u> <u>Asphalt (abstract)</u>	McLean	VA
1999 No	Sequa Chemicals, Inc.	Starch Graft Polymers as Phenolic Resin Extenders (abstract)	Chester	SC
1999 No	Singh, Mono M.; Szafran, Zvi; Pike, Ronald M.; Merrimack College	National Microscale Chemistry Center: The Leader in Worldwide Implementation of Microscale Technology (abstract)	North Andover	MA
1999 No	Solutia Inc.	Greenhouse Gases: From Waste to Product (abstract)	St. Louis	МО
1999 No	Solvent Kleene Inc.	Non-Hazardous Degreaser that Degreases as Efficiently as Trichloroethane and Outperforms Aqueous Products (abstract)	Peabody	MA
1999 No	Stepan Company	Stepan Company PA Lites Polyester Polyol (abstract)	Northfield	IL
1999 No	Stewart, Jon D.; University of Florida	Engineered Baker's Yeast as a Means to Incorporate Biocatalysis Early in Process Design: Application to the Asymmetric Baeyer-Villiger Oxidation (abstract)	Gainesville	FL
1999 No	Subramaniam, Bala; University of Kansas	A Novel Solid-Acid Catalyzed 1- Butene/Isobutane Alkylation Process (abstract)	Lawrence	KS

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Supratech Systems Inc.	Water Washable Flexo Photopolymer Plate "Flexceed" and Washout System (abstract)	Charlotte	NC
1999 No	Synovec, Robert E.; University of Washington	Novel Chemical Analysis Technologies by Water Liquid Chromatography, Raman Spectroscopy, and High Speed Gas Chromatography (abstract)	Seattle	WA
1999 No	Synthon Corporation	Development and Commercialization of High-Value Chemical Intermediates From Starch and Lactose. (abstract)	Lansing	MI
1999 No	Tektronix, Inc.	Designing Safer Chemicals: Spitfire Ink (abstract)	Wilsonville	OR
1999 No	Thompson, Stephen; Colorado State University	Small Scale Chemistry: Pollution Prevention in Inorganic Chemistry Instruction Program (abstract)	Fort Collins	СО
1999 No	U.S. Army, U.S. Army Armament Research, Development, & Engineering Center	Use of Solid Catalysts in Pollution Prevention in the Nitration of Aromatic Compounds (abstract)	Picatinny Arsenal	NJ
1999 No	U.S. Department of Energy, Albany Research Center	Chloride Free Processing of Aluminum Scrap (abstract)	Albany	OR
1999 No	U.S. Department of Energy, Pacific Northwest National Laboratory	Biocatalytic and Biomimetic Process for the Synthesis of Nitroaromatic Intermediates and Destruction of Nitrocompounds, Including Explosives (abstract)	Richland	WA
1999 No	U.S. Department of the Treasury, Bureau of Engraving and Printing	ISOMET: Development of an Alternative Solvent (abstract)	Washington	DC
1999 No	Union Carbide Corporation	Splittable Surfactants (abstract)	Danbury	CT
1999 No	United States Postal Service	Environmentally Benign Pressure Sensitive Adhesive Program (abstract)	Washington	DC
1999 No	Varma, Rajender S.; Sam Houston State University	Solvent-Free Chemical Synthesis (abstract)	Huntsville	TX
1999 No	Viasystems Technology Corporation	Solder Waste Reduction Environmental Project (abstract)	Richmond	VA
1999 No	Washington State Department of Ecology	Washington State Pollution Prevention, Health, and Safety Initiative in Academic Chemistry Laboratories (abstract)	Spokane	WA
1999 No	Weimer, Alan W.; University of Colorado	Vibrating Fluidized Bed Combustion Nitridation Processing Using Concentrated Solar Energy (abstract)	Boulder	СО

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Zyvax Incorporated	The Zyvax "Watershield" Mold Release (abstract)	Boca Raton	FL
2000 No	3M Center	Hydrofluoroethers (HFEs)—The Right Balance of Properties (abstract)	St. Paul	MN
2000 No	Albright & Wilson Americas, Inc.	A New Environmentally Friendly Corrosion Inhibitor (abstract)	Glen Allen	VA
2000 No	AMSOIL Incorporated	Waste Oil Source Reduction Through Extended Oil Service Life (abstract)	Superior	WI
2000 No	Arkenol Holdings, L.L.C.	Sugars from Lignocellulosic Materials for the Production of Bio-Based Fuels and Chemicals (abstract)	Mission Viejo	CA
2000 No	BAT Technologies Inc.	Primer for Anti-Fouling Paint (abstract)	New Rochelle	NY
2000 Yes	Bayer Corporation; Bayer AG (Germany)	Two-Component Waterborne Polyurethane Coatings (summary)	Pittsburgh	PA
2000 No	Beckman, Eric J.; University of Pittsburgh	Catalysts for the Copolymerization of Carbon Dioxide and Cyclic Ethers (abstract)	Pittsburgh	PA
2000 No	Bergbreiter, David E.; Texas A&M University	The Use of Soluble Polymers to Recover Catalysts and to Control Catalytic Reactions (abstract)	College Station	TX
2000 No	BetzDearborn, Inc.	Designing an Environmentally Friendly Copper Corrosion Inhibitor for Cooling Systems (abstract)		PA
2000 No	BIOCORP, Inc.	Biodegradable Thermoplastic Material (Mater-Bi TM) (abstract)	Redondo Beach	CA
2000 No	Brennecke, Joan F.; University of Notre Dame; Beckman, Eric J.; University of Pittsburgh	Ionic Liquid/CO ₂ Biphasic Systems: New Media for Green Processing (abstract)	Notre Dame	IN
2000 No	Center for Forest Products Research, Inc.	Polymers and Plastics from Lignin Biomass (abstract)	Albuquerque	NM
2000 No	CerOx Corporation	The CerOx Process: A Non-Thermal Alternative for Hazardous Waste Destruction (abstract)	Sunnyvale	CA
2000 No	Chemecol, LLC	PVC Alternative Technology (abstract)	Cornelius	NC
2000 No	Ciba Specialty Chemicals Corporation	Ashless Friction Modifier/Antioxidant for Lubricants (abstract)	Tarrytown	NY
2000 No	Ciba Specialty Chemicals Corporation	New Organic Corrosion Inhibitors Help Replace Toxic Heavy Metals and Reduce Solvent Emissions (abstract)	Tarrytown	NY
2000 Yes	Dow AgroSciences LLC	Sentricon TM Termite Colony Elimination System, A New Paradigm for Termite Control (summary)	Indianapolis	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	Eastman Kodak Company	Minimizing Environmental Emissions by Using Different Solvents in Manufacturing Processes (abstract)	Rochester	NY
2000 No	Eka Chemicals, Inc.	SVP-Pure TM ClO ₂ Process Technology (abstract)	Marietta	GA
2000 No	Environmental Technology and Education Center, Inc. (ETEC)	High Energy Efficiency, Environmentally Friendly Refrigerants (abstract)	Albuquerque	NM
2000 No	Freeman, Harold S.; North Carolina State University	Synthetic Dyes Based on Toxicological Considerations (abstract)	Raleigh	NC
2000 No	H and H Associates, Inc.	DUAL-ICE®: A Non-Toxic, Non- Caustic Instant Cold Compress (abstract)	Bena	VA
2000 No	Ho, Nancy W. Y.; Purdue University	Genetic Engineering of Saccharomyces Yeasts for Effective Production of Ethanol and Other Green Chemicals from Renewable Cellulosic Biomass (abstract)	West Lafayette	IN
2000 No	IBM Research Division, Almaden Research Center	The Chemical Kinetics Simulator Program (abstract)	San Jose	CA
2000 No	IonEdge Corporation	Zero-Waste Dry Plating of Cadmium (abstract)	Fort Collins	CO
2000 No	KM Limited Inc.	The PIX Module Software: Combining Life Cycle Assessment with Activity- Based Costing to Reduce Global Environmental Impact and Sustain Industrial Profitability (abstract)	Virginia Beach	VA
2000 No	Knipple, Douglas C.; Cornell University	In Vivo Synthesis of Lepidopteran Pheromone Precursors in Saccharomyces Cereviseae: An Economical Process for the Production of Effective, Nontoxic, Environmentally Safe Insect Control Products (abstract)	Geneva	NY
2000 No	Lubrizol Corporation, The	<u>Durable AMPS® Antimist Polymers for Aqueous Metalworking Fluids</u> (abstract)	Wickliffe	ОН
2000 No	Lynd, Lee R.; Dartmouth College	Overcoming the Recalcitrance of Cellulosic Biomass and Envisioning the Role of Biomass in a Sustainable World (abstract)	Hanover	NH
2000 No	Mallinckrodt Baker Inc.	Hydrogen Sulfide Elimination (abstract)	Phillipsburg	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	Micell Technologies	The MICARE Liquid CO ₂ Dry Cleaning Process (abstract)	Raleigh	NC
2000 No	Mobil Oil Corporation	Membrane Separation in Solvent Lube Dewaxing (abstract)	Fairfax	VA
2000 No	Morton International, Inc.	ADVAFLEX TM Organic Stabilizer (abstract)	Cincinnati	ОН
2000 Yes	RevTech, Inc.	Envirogluv TM : A Technology for Decorating Glass and Ceramicware with Radiation-Curable, Environmentally Compliant Inks (summary)	Edison	NJ
2000 No	Robbat, Jr., Albert; Tufts University	Cheminformatics: Faster, Better, Cheaper Chemical Analysis Software (abstract)	Medford	MA
2000 No	Robbat, Jr., Albert; Tufts University	On-line Detection of Subsurface Pollutants by Thermal Extraction Cone Penetrometry-Thermal Desorption Gas Chromatography/Mass Spectrometry (abstract)	Medford	MA
2000 Yes	Roche Colorado Corporation	An Efficient Process for the Production of Cytovene, a Potent Antiviral Agent (summary)	Boulder	СО
2000 No	Solvox Manufacturing Company	Solvox Special 5501, an Anti- agglomerate and Stickies Neutralizer for the Paper Industry (abstract)	Milwaukee	WI
2000 No	Tanko, James M.; Virginia Polytechnic Institute and State University	Green Chemistry Through the Use of Supercritical Fluids and Free Radicals (abstract)	Blacksburg	VA
2000 No	TechMatch, Incorporated	N-Methylmorpholine-N-Oxide (NMMO): A Novel, Non-toxic, Reusable Solvent for Cellulose as Source Reduction in the Production of Textile Fibers (abstract)	Saint Paul	MN
2000 No	U.S. Army, U.S. Army Edgewood Research, Development, and Engineering Center	Filter Leak Test Using Ozone-Benign Substances (abstract)	Aberdeen Proving Ground	MD
2000 No	U.S. Department of Energy, Argonne National Laboratory	Clean Diesel Breakthrough: Simultaneous Decrease in Emissions of Both Particulates and Oxides of Nitrogen During Combustion (abstract)	Argonne	IL
2000 No	U.S. Environmental Protection Agency, National Risk	Oxygenation of Hydrocarbons by Photocatalysis: A Green Alternative (abstract)	Cincinnati	ОН

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
	Management Research Laboratory			
2000 Yes	Wong, Chi-Huey; The Scripps Research Institute	Enzymes in Large-Scale Organic Synthesis (summary)	La Jolla	CA
2001 No	Anderson Chemical Company	Total Impact Program - An Environmentally Preferable Program for Laundry (abstract)	Litchfield	MN
2001 No	Aspen Systems, Inc.	Genetic Enhancement of an Anti- Freeze Protein (abstract)	Marlboro	MA
2001 Yes	Bayer Corporation; Bayer AG (Germany)	Baypure TM CX (Sodium Iminodisuccinate): An Environmentally Friendly and Readily Biodegradable Chelating Agent (summary)	Pittsburgh	PA
2001 No	Burlington Chemical Company, Inc.	Development of a Practical Model and Process to Systematically Reduce the Environmental Impact of Chemicals Utilized by the Textile and Related Industries (abstract)	Burlington	NC
2001 No	CDTech	A New Process for Producing Dimethyl Carbonate (abstract)	Pasadena	TX
2001 No	ChemNova Technologies, Inc.	Chrome-free Single-step In-situ Phosphatizing Coatings: Anti- fingerprint Coatings on Galvanized Steel (abstract)	DeKalb	IL
2001 No	Clearmate, Inc.	ClearMate (abstract)	Minneapolis	MN
2001 No	DeCopier Technologies, Inc.	Advanced, Ecologically Safe De-inking Technology to Recover High Quality Pulp from Secondary Fibers/or Recyclable Waste (abstract)	Lawrence	MA
2001 No	DuPont Crop Protection	Biocatalytic Production of 5- Cyanovaleramide (abstract)	Wilmington	DE
2001 No	Dynacs Engineering Co., Inc.	Oxidizer Scrubber Project (abstract)	Kennedy Space Center	FL
2001 No	E. I. DuPont de Nemours & Co., Inc.	New Generation Adiponitrile Technology (abstract)	Wilmington	DE
2001 Yes	EDEN Bioscience Corporation	Messenger®: A Green Chemistry Revolution in Plant Production and Food Safety (summary)	Bothell	WA
2001 No	Evergreen Nylon Recycling LLC	Innovative Green Chemistry for Sustainable Manufacture of Caprolactam (abstract)	Augusta	GA
2001 No	Huntsman Polyurethanes	Equipment Flushing Agent for the Polyurethane Industry (abstract)	West Deptford	NJ

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 No	IBM Burlington (IBM Microelectronics Division)	Solvent Waste Reduction Via An Acetic Acid Bowl Cleaning Process (abstract)	Essex Junction	VT
2001 Yes	Li, Chao-Jun; Tulane University	Quasi-Nature Catalysis: Developing Transition Metal Catalysis in Air and Water (summary)	New Orleans	LA
2001 No	Mitzel, Thomas; Trinity College	Formation of Ene-Diyne Molecules Under Indium Mediated Aqueous Barbier-Conditons (abstract)	Hartford	CT
2001 No	Motorola Corporation; ULVAC Technologies, Inc.	Eliminating Solvents from Silicon Wafer Manufacturing (abstract)	Austin	TX
2001 No	Nextec Applications, Inc.	Solventless Process for Improving Fabric Performance Properties (abstract)	Vista	CA
2001 No	Northrup-Grumman	Non-Destructive Testing of Corrosion Under Coatings (abstract)	Bethpage	NY
2001 Yes	Novozymes North America, Inc.	BioPreparation TM of Cotton Textiles: A Cost-Effective, Environmentally Compatible Preparation Process (summary)	Franklinton	NC
2001 Yes	PPG Industries	Yttrium as a Lead Substitute in Cationic Electrodeposition Coatings (summary)	Pittsburgh	PA
2001 No	PPG Industries, Inc.	Replacement of Asbestos in the Diaphragm Cell Process for Manufacture of Chlorine and Caustic Soda (abstract)	Monroeville	PA
2001 No	QuesTek Innovations, LLC	Computational Design of Corrosion Resistant Steels for Structural Applications In Aircraft (abstract)	Evanston	IL
2001 No	Rochester Midland Corporation	Development of an Effective, Coordinated Family of Safe, Green Cleaning and Maintenance Products (abstract)	Rochester	NY
2001 No	U.S. Air Force, Air Force Research Laboratory	Sol-Gel Technology for Low-VOC, Non-Chromated Adhesive & Sealant Applications (abstract)	Wright Patterson AFB	ОН
2001 No	U.S. Air Force, Air Force Research Laboratory	Replacement Non-Toxic Sealants for Standard Chromated Sealants and Repair (abstract)	Wright Patterson AFB	ОН
2001 No	U.S. Army, TACOM- ARDEC - Picatinny Arsenal, NJ	Primerless RTV Silicone Sealants/Adhesives (abstract)	Picatinny Arsenal	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 No	U.S. Army, U.S. Army Armament Research, Development, and Engineering Center	Low VOC Chemical Agent Resistance Coatings (abstract)	Picatinny Arsenal	NJ
2001 No	U.S. Army, U.S. Army Research Laboratory	Non-Polluting Composites Remanufacturing and Repair for Military Applications (abstract)	Aberdeen Proving Ground	MD
2001 No	U.S. Army, U.S. Army Research Laboratory - Aberdeen Proving Ground, MD	Recycling Propellants in Non-Polluting Supercritical Fluids: Novel Computational Chemistry Models for Predicting Effective Solvents (abstract)	Aberdeen Proving Ground	MD
2001 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Environmentally Benign Synthesis of Monoglyceride Mixtures Coupled With Enrichment by Supercritical Fluid Fractionation (abstract)	Peoria	IL
2001 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Vegetable Oil Based Printing Inks and Their Environmental Advantages (abstract)	Peoria	IN
2001 No	U.S. Environmental Protection Agency, National Risk Management Research Laboratory	Paris II Solvent Design Software (abstract)	Cincinnati	ОН
2002 No	AEGEANS, Inc.	<u>Tasphox Water Treatment System</u> (abstract)	Harrisburg	PA
2002 No	Air Products and Chemicals, Inc.	DEOXO-FLUOR TM Reagent (abstract)	Allentown	PA
2002 No	Applied CarboChemicals, Inc.	Bioderived Succinic Acid as a Platform for a Carbohydrate Chemistry (abstract)	Alto	MI
2002 Yes	Beckman, Eric J.; University of Pittsburgh	<u>Design of Non-Fluorous, Highly CO₂-Soluble Materials (summary)</u>	Pittsburgh	PA
2002 No	Bristol-Myers Squibb Company	The Process Greenness Scorecard: Design for Environmental Health and Safety Through Green Chemistry (abstract)	New York	NY
2002 Yes	Cargill Dow LLC	NatureWorks TM PLA Process (summary)	Minnetonka	MN
2002 Yes	Chemical Specialties, Inc. (CSI)	ACQ Preserve®: The Environmentally Advanced Wood Preservative (summary)	Charlotte	NC
2002 No	ChitinWorks America; Payne, Gregory F.;	Industry-University-Government Partnership for Converting Regional	College Park	MD

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
	University of Maryland Biotechnology Institute	Wastes into Chemical Products (abstract)		
2002 No	•	An Innovative Replacement for Chromium for Aluminum Coatings (abstract)	New Orleans	LA
2002 No	Donohue, Marc; Johns Hopkins University	Supercritical Fluid Spray Application Process for Adhesives and Primers (abstract)	Baltimore	MD
2002 No	Dordick, Jonathan S.; Rensselaer Polytrechnic Institute	Development of Extraordinarily Active Biocatalysts for Highly Selective and Efficient Synthesis of Chemicals and Pharmaceuticals (abstract)	Troy	NY
2002 No	DynynStyl Inc.	EcoFuel - A Safe and Effective Canned Heat Alternative (abstract)	Lake Worth	FL
2002 No	EarthShell Corporation	EarthShell Packaging: Designed with the Environment in Mind (abstract)	Lutherville	MD
2002 No	EPI Environmental Plastics Inc.	Totally Degradable Plastic Additives (TDPA TM) (abstract)	Conroe	TX
2002 No	Evans Cooling Systems, Inc.	The EVANS DE-TOX TM Process for the Detoxification of Ethylene Glycol (abstract)	Sharon	СТ
2002 No	ExxonMobil Chemical	Development of Two Unique Processes for Manufacturing High-Purity Cyclopentane from Dicyclopentadiene (abstract)	Baytown	TX
2002 No	Farris, Richard J.; University of Massachusetts Amherst	Recycling of Cross-Linked Materials Via "High-Pressure High-Temperature Sintering": Redefining Thermosets (abstract)	Amherst	MA
2002 No	GE Plastics	Recovery and Beneficial Use of Sodium Nitrite from a Wastewater Stream (abstract)	Mount Vernon	IN
2002 No	Henkel Surface Technologies	Water-Based Synthesis and Purification of Mannich Base Modified Polyphenols (abstract)	Madison Heights	MI
2002 No	Hill, Craig L.; Emory University; Weinstock, Ira A.; U.S. Department of Agriculture Forest Service, Forest Products Laboratory	Effluent-Free and Selective Delignification Using Only Oxygen and Water (abstract)	Atlanta	GA
2002 No	Hudlicky, Tomas; University of Florida	Tandem Enzymatic-Electrochemical Methods for Green Manufacturing: Efficient Synthesis of Pharmaceuticals	Gainesville	FL

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		from Halogenated Aromatic Waste (abstract)		
2002 No	Hybrid Plastics	A Green Revolution with Nanostructured TM Chemicals (abstract)	Fountain Valley	CA
2002 No	Itronics Metallurgical, Inc.	Fertilizer From Photowaste (abstract)	Reno	NV
2002 No	Madison Chemical Company	Cadmium Replacement in Mechanical Coating (abstract)	Madison	IN
2002 No	Mohan, Ram S.; Illinois Wesleyan University	Environmentally Friendly Organic Synthesis Using Bismuth Compounds (abstract)	Bloomington	IL
2002 No	OMNOVA Solutions Inc.	Short Perfluoroalkyl Chain, Polymeric Fluorosurfactants as Wetting, Flow and Leveling Agents for Aqueous Coatings (abstract)	Fairlawn	ОН
2002 No	ONDEO Nalco Company	Nalco ACT – Advanced Condensate Treatment for Boiler Systems (abstract)	Napervile	IL
2002 Yes	Pfizer, Inc.	Green Chemistry in the Redesign of the Sertraline Process (summary)	New London	CT
2002 No	RADTECH International, North America	Eliminating Air Pollution (VOC and	Bethesda	MD
2002 Yes	SC Fluids, Inc.	SCORR – Supercritical CO ₂ Resist Remover (summary)	Nashua	NH
2002 No	SePRO Corporation	Integrated Methods for the Control of Aquatic Plants (IMCAP TM): Innovative Chemical and Precision Technologies (abstract)	Carmel	IN
2002 No	Sunshine Makers, Inc.	Crystal Simple Green® (abstract)	Huntington Harbour	CA
2002 No	Tempyrox Company, Inc.	World-wide Elimination or Reduction of Solvent and Chemical Cleaning of Laboratory Glassware Using Thermal Pyrolysis-oxidation Chemistry (abstract)	Dallas	TX
2002 No	U.S. Army, U.S. Army Soldier and Biological Chemical Command	Electronic and Photonic Polymers from Biocatalysis (abstract)	Natick	MA
2002 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Environmentally Benign Two-Step Synthesis of Fatty Alcohol Mixtures Using Supercritical Carbon Dioxide (SC-CO ₂) and SC-CO ₂ /Hydrogen Mixtures (abstract)	Peoria	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	U.S. Department of Agriculture, Southern Regional Research Center	Environmentally Benign Antibacterial Agents (abstract)	New Orleans	LA
2002 No	U.S. Department of Energy, Argonne National Laboratory	Autothermal Reforming Catalyst for Fuel Cells (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Argonne National Laboratory	Electrometallurgical Treatment of Nuclear Waste (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Argonne National Laboratory	Electrorefining of Spent Nuclear Fuel (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Los Alamos National Laboratory	Environmentally Benign Enzyme Reactor for Polymer Synthesis (abstract)	Los Alamos	NM
2002 No	U.S. Department of Energy, Pacific Northwest National Laboratory	CSSX Process Demonstration (abstract)	Richland	WA
2002 No	U.S. Navy, U.S. Naval Research Laboratory	Patterned Channel-Constrained Process for Additive Electroless Metal Deposition (abstract)	Washington	DC
2002 No	U.S. Polychemical Corporation	Dispersit TM : A Waterbased Oil Dispersant for Oil Spills in Salt and Fresh Water (abstract)	Chestnut Ridge	NY
2002 No	Young, Ming-Wan; Xanthos, Marino; New Jersey Institute of Technology	Melt Processing for Solvent-Less Manufacture of High Performance Dry Powder Coatings (abstract)	Newark	NJ
2003 No	AC Products	Enviromask - A Zero VOC Method to Aircraft Metal Forming (abstract)	Placentia	CA
2003 Yes	AgraQuest, Inc.	Serenade [®] : An Effective, Environmentally Friendly Biofungicide (summary)	Davis	CA
2003 No	Allen, Christopher W.; University of Vermont; Peterson, Eric S.; Idaho National Engineering and Environmental Laboratory	Environmentally Benign Preparation and Polymerization of Phosphazene Polymers (abstract)	Burlington	VT
2003 No	Allen, Dianne; University of Massachusetts Amherst	A Novel Additive System for Time- Controlled Degradation of Polypropylene (abstract)	Jamaica Plain	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2003 No	Allen, Robert D.; IBM Almaden Research Center; Carbonell, Ruben; North Carolina State University; DeSimone, Joseph M.; University of North Carolina at Chapel Hill; Gleason, Karen K.; Massachusetts Institute of Technology; Ober, Christopher K.; Cornell University	Environmentally Benign Lithography for Semiconductor Manufacturing (abstract)	Chapel Hill	NC
2003 No	Buckman Laboratories International, Inc.	Enzymes as an Alternative to Toxic Materials for Treatment of Slime Deposits in the Paper Industry (abstract)	Memphis	TN
2003 No	Crivello, James V.; Rensselaer Polytechnic Institute	Synthesis and Photopolymerization of Monomers Derived from Biorenewable Sources (abstract)	Troy	NY
2003 No	Crompton Corporation	ACRAMITE TM - A New Selective and Safe Miticide (abstract)	Greenwich	CT
2003 No	Deft, Inc.	Zero VOC Protective Coatings for Aerospace Applications (abstract)	Irvine	CA
2003 Yes	DuPont	Microbial Production of 1,3- Propanediol (summary)	Wilmington	DE
2003 No	Epmar Corporation	Kemiko and Sta-Crete Low VOC Architectural Coating (abstract)	Santa Fe Springs	CA
2003 No	Flexabar Corporation	Aquagard Waterbase Antifouling Bottom Boat Paint (abstract)	Lakewood	NJ
2003 Yes	Gross, Richard A.; Polytechnic University	New Options for Mild and Selective Polymerizations Using Lipases (summary)	Brooklyn	NY
2003 No	H2OK Engineering	The Use of Vitamin C To Neutralize Oxidants Such as Chlorine in Drinking Water Which Is Often Discharged to the Environment (abstract)	Mount Vernon	WA
2003 No	Hudlicky, Tomas; University of Florida	<u>Direct Biocatalytic Synthesis of</u> <u>Functionalized Catechols: A Short</u> <u>Route to Combretastatin A-1 (abstract)</u>	Gainesville	FL
2003 No	Kaplan, David L.; Tufts University	Antioxidant-Functionalized Polymers (abstract)	Medford	MA
2003 No	Kraus, George A.; Iowa State University	Photoacylation and Photoalkylation of Quinones (abstract)	Ames	IA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2003 No	Micro Interconnect Technology	An Economically Advantaged, Green Process, for the Fabrication of Printed Circuit Boards (abstract)	Bedford	NH
2003 No	Nicolaou, K.C.; University of California, San Diego	Tandem Reactions, Cascade Sequences and Biomimetic Strategies in Chemical Synthesis (abstract)	La Jolla	CA
2003 No	ONDEO Nalco Company	STABREX® Microorganism Control Chemical: An Environmentally Sensible Chlorine Alternative for Industrial Water Treatment (abstract)	Naperville	IL
2003 No	Periana, Roy Anthony; University of Southern California	Low Temperature, Hydrocarbon Hydroxylation: The Key to Greener, Lower Cost Chemistry for Chemicals, Fuel and Power for the 21st Century (abstract)	Los Angeles	CA
2003 No	Plug Power Inc.	High CO Tolerant Polymer Electrolyte Membrane Fuel Cell Technology (abstract)	Latham	NY
2003 No	RajanBabu, T. V.; Ohio State University	Asymmetric Catalysis in Water: Hydroxyphosphine and Hydroxyphosphinite Ligands for Amino Acid Synthesis (abstract)	Columbus	ОН
2003 Yes	Shaw Industries, Inc.	EcoWorx TM Carpet Tile: A Cradle-to- Cradle Product (summary)	Dalton	GA
2003 No	Shi, Yian; Colorado State University	An Environmentally Benign Asymmetric Epoxidation Me (abstract)	Fort Collins	CO
2003 No	Smart Sonic Corporation	440-R SMT Detergent Hazardous Solvent Alternative for Printed Circuit Board Stencil Cleaning (abstract)	Van Nuys	CA
2003 Yes	Süd-Chemie Inc.	A Wastewater-Free Process for Synthesis of Solid Oxide Catalysts (summary)	Louisville	KY
2003 No	Syngenta Crop Protection, Inc.	Conversion of the Herbicide, Metolachlor, to S-Metolachlor in the U.S. Marketplace (abstract)	Greensboro	NC
2003 No	Treyco Supply, Inc.	Development of a Safer and More Effective Biodegradable Antimicrobial Cleaning Product (abstract)	Wilson	NC
2003 No	U.S. Air Force, Air Force Research Laboratory, Wright Patterson Air Force Base	New, Environmentally Protective Aircraft De-Icing Technology (abstract)	Dayton	ОН
2003 No	Wachs, Israel E.; Lehigh University	Converting Pollution to Profits: Valuable Chemicals & Energy (abstract)	Bethlehem	PA

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2003 No	Xerox Corporation	Xerographic Dry Ink Resin Manufacturing Hazard & Emission Reduction (abstract)	Webster	NY
2004 No	Advanced Marine Technologies (AMT) BioProducts Corporation	Reducing Nitrates in Buzzards Bay with the Production of Organic Gem® Fertilizer from New Bedford's Fish Processing Wastes (An SGNB Project) (abstract)	South Dartmouth	MA
2004 No	BASF Corporation	All-Acrylic Binders for Low VOC Architectural Coatings (abstract)	Charlotte	NC
2004 No	Beckman, Eric J.; University of Pittsburgh	In-Situ Generation of H2O ₂ in CO ₂ for Green Oxidations (abstract)	Pittsburgh	PA
2004 No	Bergman, Robert G.; University of California at Berkeley	Developing Highly Efficient C-H Activation of Hydrocarbons (abstract)	Berkeley	CA
2004 No	Bose, Ajay K.; Stevens Institute of Technology	Cost Effective Green Chemistry Approaches to Pharmaceuticals: Microwave Techniques & "Grindstone Chemistry" for Solventless Reactions and Less Pollution (abstract)	Hoboken	NJ
2004 Yes	Bristol-Myers Squibb Company	Development of a Green Synthesis for Taxol® Manufacture via Plant Cell Fermentation and Extraction (summary)	New York	NY
2004 Yes	Buckman Laboratories International, Inc.	Optimyze [®] : A New Enzyme Technology to Improve Paper Recycling (summary)	Memphis	TN
2004 No	C.H. Thompson Co. Inc.	Non Chromate Chemical Conversion Alternative Coating (abstract)	Binghamton	NY
2004 No	Cargill, Inc.	BioTrans® 1000 Soybean-Based Transformer Fluid (abstract)	Wayzata	MN
2004 No	Dionysiou, Dionysios D.; University of Cincinnati	Water Immiscible Room Temperature Ionic Liquids as Green Solvents for Extraction and In-Situ Photolytic Destruction of Environmental Organic Contaminants (abstract)	Cincinnati	ОН
2004 No	Dow Chemical Company, The	n-Alkyl Propionate Ester Solvents (abstract)	Midland	MI
2004 Yes	Eckert, Charles A.; Liotta, Charles L.; Georgia Institute of Technology	Benign Tunable Solvents Coupling Reaction and Separation Processes (summary)	Atlanta	GA
2004 No	Emisphere Technologies, Inc.	Environmental Advantages Offered by Boric Acid Mediated Amidation Between a Carboxylic Acid and an	Tarrytown	NY

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Amine to Form a Carboxamide, a Basic Unit of Peptides and Proteins (abstract)		
2004 Yes	Engelhard Corporation	Engelhard Rightfit TM Organic Pigments: Environmental Impact, Performance, and Value (summary)	Iselin	NJ
2004 No	Environmentally Sensitive Solutions, Inc.	Utilization of Neutral Cleaners for Reducing Environmental and Health Impacts (abstract)	Mequon	WI
2004 No	Ethyl Petroleum Additives Inc.	Metal, Phenol and Ash-Free Antiwear Hydraulic Additive Providing Performance Previously Only Achieved by Use of Zinc Containing Additives (abstract)	Richmond	VA
2004 No	Folia, Inc.	Reactin Series TM AS Copolymers: Specialty Reactive Aspartic Acid Copolymers (abstract)	Birmingham	AL
2004 No	Goodyear Tire & Rubber Company, The	RPS Technology: Breakthrough Technology for Water-Based Paints, Coatings, Adhesives and Sealants (abstract)	Akron	ОН
2004 No	Janda, Kim D.; Lerner, Richard A.; The Scripps Research Institute	Antibody Catalysis (abstract)	La Jolla	CA
2004 No	Janssen Pharmaceutica Inc.	ECONEA® 028: Designing and Developing a Metal-Free, Environmentally Safe, and Effective Antifoulant for Use Against Hard Fouling Marine Organisms (abstract)	Titusville	NJ
2004 Yes	Jeneil Biosurfactant Company	Rhamnolipid Biosurfactant: A Natural, Low-Toxicity Alternative to Synthetic Surfactants (summary)	Saukville	WI
2004 No	Knockout Group, The	"Knockout": A Dynamic Cleaning Experience, In a Colloidal Format, With Pollution Prevention Qualities (abstract)	Chicago	IL
2004 No	LCP Tech Holdings LLC	Development of Novel Liquid Crystal Polymers (abstract)	Cincinnati	ОН
2004 No	Li, Chao-Jun; Tulane University	Developing Direct Catalytic Addition of Alkynes to Aldehydes and Imines in Water and under Solventless Conditions (abstract)	New Orleans	LA
2004 No	PanTerra Technologies, Incorporated	Reducing Domestic Petroleum Consumption by Twenty-five Percent (abstract)	Goshen	CT

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 No	Plug Power Inc.	Demonstration of a Home Energy Station for Production of Electricity, Heat, and Hydrogen (abstract)	Latham	NY
2004 No	Plug Power Inc.	Zero-to-Landfill Fuel Cell Systems (abstract)	Latham	NY
2004 No	PPG Architectural Finishes, Inc.	Pure Performance "Zero" VOC Latex Coating (abstract)	Pittsburgh	PA
2004 No	ProChemTech International, Inc.	ElectroBrom Biocide System (abstract)	Brockway	PA
2004 No	Ragauskas, A.J.; Georgia Institute of Technology	Mill Designed Biobleaching Technologies (abstract)	Atlanta	GA
2004 No	RD Chemical Company	Circuit Board Oxide Process (abstract)	Mountain View	CA
2004 No	Sahinidis, Nikolaos V.; University of Illinois at Urbana	A Systematic Methodology for the Design and Identification of Environmentally Benign Chemicals (abstract)	Urbana	IL
2004 No	of Tennessee Space Institute	From Waste-to-Energy: Catalytic Steam Gasification of Poultry Litter (abstract)	Tullahoma	TN
2004 No	U.S. Department of Energy, Los Alamos National Laboratory	Formamide Replacement in Genetic Sequencing (abstract)	Los Alamos	NM
2004 No	Ulano Corporation	Waste Minimization and Pollution Prevention Programs for the Production of Films & Chemicals in the Graphic Arts Industry (abstract)	Brooklyn	NY
2004 No	Uniseal Inc.	Elimination of Trichloroethylene, a Hazardous Air Pollutant (HAP), From A Production Process (abstract)	Evansville	IN
2004 No	Zeller International	Aqua Form TM , a water based, odorless, non-emissive, non-styrenated bonding/laminating resin for structural/advanced composites (abstract)	Downsville	NY
2005 No	Afton Chemical Corporation	Metal-, Phenol-, and Ash-Free Antiwear Hydraulic Additive: Providing Performance Previously Only Achieved by Use of Zinc- Containing Additives (abstract)	Richmond	VA
2005 No	Air Products Polymers, L.P.	Airflex® EF811 Vinyl Acetate Ethylene (VAE) Emulsion Polymer: A Binder for Environmentally Friendly, High- Performance, Cost-Effective Architectural Coatings (abstract)	Allentown	PA

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 Yes	Archer Daniels Midland Company	Archer RC TM : A Nonvolatile, Reactive Coalescent for the Reduction of VOCs in Latex Paints (summary)	Decatur	IL
2005 Yes	Archer Daniels Midland Company; Novozymes	NovaLipid TM : Low <i>Trans</i> Fats and Oils Produced by Enzymatic Interesterification of Vegetable Oils Using Lipozyme [®] (summary)	Decatur	IL
2005 No	Atmospheric Glow Technologies, Inc.	Sterilization of Medical Devices with Atmospheric Plasma (abstract)	KNO _x ville	TN
2005 Yes	BASF Corporation	A UV-Curable, One-Component, Low- VOC Refinish Primer: Driving Eco- Efficiency Improvements (summary)	Whitehouse	ОН
2005 No	Beckman, Eric J.; University of Pittsburgh	N-Vinyl Formamide: The "Greening" of a Green Replacement for Acrylamide (abstract)	Pittsburgh	PA
2005 No	Bose, Ajay K.; Stevens Institute of Technology	<u>Unconventional High-Efficiency Green</u> <u>Synthesis (abstract)</u>	Hoboken	NJ
2005 No	Chemical Compliance Systems, Inc.	Green Product and Munitions Compliance Analytical Systems (abstract)	Lake Hopatcong	NJ
2005 No	Cholli, Ashok L.; University of Massachusetts Lowell	Biocatalytically Synthesized High- Performance Novel Antioxidants for Materials (abstract)	Lowell	MA
2005 No	Cleary Chemical Corporation	ROACH TERMINAL TM Insect Control: A Non-toxic Alternative that Prevents the Development of Pest Cockroach Populations (abstract)	Dayton	NJ
2005 No	Crane & Company, Inc.	Substitution with Carbon Dioxide Eliminates Major Use of Sulfuric Acid (abstract)	Dalton	MA
2005 No	DeSimone, Joseph M.; University of North Carolina at Chapel Hill	Surfactant-Free Supercritical Carbon Dioxide Fluoroolefin Polymerization Technology (abstract)	Chapel Hill	NC
2005 No	Dow BioProducts Ltd.	WOODSTALK TM Strawboard (abstract)	Midland	MI
2005 No	Dow Chemical Company, The	VORANOL* VORACTIV* Polyols for Flexible Polyurethane Foams (abstract)	Midland	MI
2005 No	Ecolab	Formula 1 TM Laundry System (abstract)	Inver Grove Heights	MN
2005 No	Eli Lilly and Company	An Improved Approach to the Preparation of Duloxetine and Atomoxetine (abstract)	Lafayette	IN
2005 No	GlaxoSmithKline	Discovery and Development of a Green Process for Radafaxine (abstract)	Philadelphia	PA

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 No	Harris Labs	Evapo-Rust TM : Nonhazardous Rust Removal by Selective Chelation (abstract)	Springdale	AR
2005 No	Highland Supply Corporation	Using Chemistry and Engineering Technology to Reduce Volatile Organic Compound (VOC) Emissions and Eliminate Hazardous Process Waste in the Printing Industry (abstract)	Highland	IL
2005 No	International Chemical Products, Inc. (ICP)	PICKLEX®: An Environmentally Safe Metal Surface Preparation and Pretreatment Chemical (abstract)	Huntsville	AL
2005 No	Lonza, Inc.	Equinox TM : A Greener Approach to Microbiological Control (abstract)	Fair Lawn	NJ
2005 No	MacRitchie, Finlay; Kansas State University	The Application of Ultrasound to Catalyze Reactions in Some Industrial Processes (abstract)	Manhattan	KS
2005 Yes	Merck & Co.	A Redesigned, Efficient Synthesis of Aprepitant, the Active Ingredient in Emend®: A New Therapy for Chemotherapy-Induced Emesis (summary)	Rahway	NJ
2005 Yes	Metabolix, Inc.	Producing Nature's Plastics Using Biotechnology (summary)	Cambridge	MA
2005 No	METSS Corporation	Environmentally Friendly Aircraft Deicing Fluid (abstract)	Westerville	ОН
2005 No	Microcide, Inc.	Technology of Safe, Biodegradable, and Non-Polluting Products as Alternatives to Toxic Microbicidal Chemicals (abstract)	Troy	MI
2005 No	Novartis Pharmaceuticals Corporation	Development of Green and Practical Processes Utilizing Dialkyl Carbonates as Alkylating Reagents (abstract)	East Hanover	NJ
2005 No	Pfizer Global Research and Development	A Green Process for the Synthesis of Quinapril Hydrochloride (abstract)	New London	CT
2005 No	Pfizer Global Research and Development	Separation of Racemic Tetralone (abstract)	New London	CT
2005 No	Pfizer Global Research and Development	The Discovery and Development of an Environmentally Benign Commercial Route to Sildenafil Citrate (abstract)	New London	CT
2005 Yes	Rogers, Robin D.; University of Alabama	A Platform Strategy Using Ionic Liquids to Dissolve and Process Cellulose for Advanced New Materials (summary)	Tuscaloosa	AL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 No	Rynex Holdings, Ltd.	RYNEX® Dry Cleaning Solution (abstract)	Woodbury	NY
2005 No	Severtson, Steven J.; University of Minnesota	Research, Development, and Commercialization of Environmentally Benign Thermoplastic Pressure- Sensitive Adhesive Label Products (abstract)	St. Paul	MN
2005 No	Stoller Enterprises, Inc.	Stoller STIMULATE: A Natural Product for Improving Crop Plant Performance and Enhancing Pest Resistance (abstract)	Houston	TX
2005 No	U.S. Army, U.S. Army Engineer Research and Development Center	Environmentally Friendly Water Treatments for Control of Corrosion, Scale, and Bioactivity in Heating and Cooling Systems (abstract)	Champaign	IL
2005 No	U.S. Army, U.S. Army Engineer Research and Development Center	Mold Prevention through the Novel Use of In Situ Electrochemistry to Eliminate Water Seepage in Concrete Structures (abstract)	Champaign	IL
2005 No	Westech Aerosol Corporation	WT-HSC13: A High-Strength, Low- VOC Aerosol Adhesive (abstract)	Port Orchard	WA
2006 No	ArchAngel Enterprises, LLC	Stalosan F Microbial and Environmental Control for Use in Housing of All Animals (abstract)	Cedar Rapids	IA
2006 Yes	Arkon Consultants and NuPro Technologies, Inc.	Environmentally Safe Solvents and Reclamation in the Flexographic Printing Industry (summary)	Winston Salem	NC
2006 No	Broin and Associates	BFRAC TM and BPX TM : Launching the Biorefining Revolution (abstract)	Sioux Falls	SD
2006 No	Bunge North America; Novozymes North America, Inc.	Enzymatic Degumming of Vegetable Oils: Reducing Environmental Impact and Improving Oil Yield (abstract)	Saint Louis	МО
2006 No	Coastwide Laboratories	Sustainable Earth® Cleaning Products Designed for Health and the Environment (abstract)	Wilsonville	OR
2006 Yes	Codexis, Inc.	Directed Evolution of Three Biocatalysts to Produce the Key Chiral Building Block for Atorvastatin, the Active Ingredient in Lipitor® (summary)	Redwood City	CA
2006 No	Diwekar, Urmila; University of Illinois at Chicago	Greener by Design: An Efficient, Multiobjective Framework Under Uncertainty (abstract)	Chicago	IL
2006 No	Dow AgroSciences LLC	Aminopyralid: Increasing Protection of Endangered Species through Improved	Indianapolis	IN

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Management of Non-Native Plants While Maximizing Land Use and Significantly Reducing Herbicide Volume and Application (abstract)		
2006 No	Dow AgroSciences LLC; U.S. Department of Agriculture, Agricultural Research Service	GF-120 TM NF Naturalyte TM Fruit Fly Bait (abstract)	Indianapolis	IN
2006 No	DuPont Company	Bioderived Solvents, Surfactants, Fuel Additives, and Monomers (abstract)	Wilmington	DE
2006 No	DuPont Company	New Asymmetric Hydroxylation Technology for the Commercial Manufacture of Indoxacarb (abstract)	Wilmington	DE
2006 No	Duraflame, Inc.	<u>Duraflame[®] All-Natural Manufactured</u> <u>Firelog (abstract)</u>	Stockton	CA
2006 No	FluidPhase Technologies Inc.	A Preproduction System for Re- Refining Used Oil Using Closed-Loop, Patented, Atomization Technology (abstract)	Pittsburgh	PA
2006 No	Foster-Miller, Inc.	Environmentally Advantaged Formulations for Aircraft Ice Control (abstract)	Waltham	MA
2006 No	Garcia-Garibay, Miguel A.; University of California, Los Angeles	Solvent-Free, Crystal-to-Crystal Photochemical Reactions: The Synthesis of Adjacent Stereogenic Quaternary Centers (abstract)	Los Angeles	CA
2006 No	GE Plastics	Flexible NORYL* Resins for Wire Coating (abstract)	Selkirk	NY
2006 No	Go-Tec, Inc.	Acetylene: A Viable Fuel Alternative for the Internal Combustion Engine (abstract)	Columbia	МО
2006 No	GreenEarth® Cleaning, LLC	GreenEarth® Cleaning, Dry Cleaning with Silicone Solvent (abstract)	Kansas City	МО
2006 No	Halliburton Energy Services	ACCOLADE TM Synthetic-Based Drilling Fluid System (abstract)	Houston	TX
2006 No	HALOX	New Water-Based Organic Corrosion Inhibitor (abstract)	Hammond	IN
2006 No	Innovative Formulation Company	Ecological Paint Antimicrobial Clear Coat (abstract)	Tucson	AZ
2006 No	Interface Fabrics	Closing the Loop with "Benign by Design" Biobased Fabrics and Backings (abstract)	Grand Rapids	MI
2006 No	iSoy Technologies Corporation	Biocatalytic Production of Biobased Personal Care Products (abstract)	Trout Valley	IL

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	Johnson Polymer, LLC	JONCRYL® FLX 5000: A High- Performance, Water-Based Polymer to Facilitate the Conversion from Solvent- to Water-Based Inks in Surface Film Flexible Packaging Printing (abstract)	Sturtevant	WI
2006 No	JohnsonDiversey, Inc.	A Novel Cleaning System Using Less Toxic, Safer Chemicals (abstract)	Sturtevant	WI
2006 No	LANXESS Corporation	Picaridin: A Safe, Effective, and Environmentally Friendly Insect Repellent that People Will Use (abstract)	Pittsburgh	PA
2006 Yes	Merck & Co., Inc.	Novel Green Synthesis for β-Amino Acids Produces the Active Ingredient in Januvia TM (summary)	Rahway	NJ
2006 No	MLI Associates	Environmentally Benign Deicing/Anti- Icing Agents (abstract)	Shoreham	NY
2006 No	Montana Polysaccharides Corporation	Multipurpose Exopolymer as a Raw Material (abstract)	Rock Hill	SC
2006 No	Netravali, Anil N.; Cornell University	Green Composites: Environment- Friendly and Fully Sustainable (abstract)	Ithaca	NY
2006 No	Nike, Inc.	Development of Nike Brand Footwear Outsole Rubber as Environmentally Preferred Material (abstract)	Beaverton	OR
2006 No	Pfizer Global Research and Development	Green Chemistry in the Redesign of the Celecoxib Process (abstract)	New London	CT
2006 No	PostSaver USA	PostSaver® (abstract)	Memphis	TN
2006 No	Praxair, Inc.	Oxygen-Enhanced Combustion for NO _x Control (abstract)	Tonawanda	NY
2006 No	Recovery Systems Inc.	Innovative Process for Treatment of Hog Waste and Production of Saleable Products from This Waste (abstract)	Wilmington	NC
2006 No	Rhodia Inc.	Guar-Based Chemistry Advances Targeted Performance of Crop Sprays by Reducing Drift and Improving Retention (abstract)	Cranbury	NJ
2006 No	Rohm and Haas Company; Johns Manville	Invention and Commercialization of Environmentally Smart Thermosetting Binders (abstract)	Philadelphia	PA
2006 No	Rust-Oleum Corporation	Zero-VOC, Zero-HAP, No-Odor Industrial Coatings (abstract)	Vernon Hills	IL
2006 Yes	S.C. Johnson & Son, Inc.	Greenlist TM Process to Reformulate Consumer Products (summary)	Racine	WI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	Separation Technologies LLC	Beneficiation and Use of Coal Combustion Fly Ash: A Major Success in Reducing Solid Waste and Increasing Supplies of Construction Materials While Reducing Greenhouse Gas Emissions (abstract)	Needham	MA
2006 Yes	Suppes, Galen J.; University of Missouri- Columbia	Biobased Propylene Glycol and Monomers from Natural Glycerin (summary)	Columbia	МО
2006 No	Syngenta	Mesotrione and Callisto® Plant Technology (abstract)	Washington	DC
2006 No	Tester, Jefferson W.; Massachusetts Institute of Technology	Replacing Organic Solvents and Homogeneous Catalysts with Water and Carbon Dioxide (abstract)	Cambridge	MA
2006 No	U.S. Department of Energy, Pacific Northwest National Laboratory	Self-Assembled Monolayers on Mesoporous Silica Technology: A Green Alternative Synthesis of a Novel Adsorbent for Mercury Source Reduction (abstract)	Richland	WA
2006 No	Ventana Research Corporation	Development of High Performance, Environmentally Benign Hard Disk Drive Polishing Fluids and Corrosion Inhibitors (abstract)	South Tucson	AZ
2006 No	W.F. Taylor Co., Inc.	Meta-Tec TM Low-VOC, One- Component, Cross-Linking Adhesive: Innovative Science–Applied Technology (abstract)	Dalton	GA
2006 No	Warner, John C.; University of Massachusetts Lowell	Bioinspired Thymine-Based Photopolymers: A Green Chemistry Platform for Innovation, Research, Education, and Outreach (abstract)	Lowell	MA
2006 No	Xerox Corporation	Xerox's Emulsion Aggregation Toner Technology (abstract)	Webster	NY
2006 No	ZIVATECH Corporation	High-Efficiency Olefin to Polyolefin Process with Toxic Solvent Elimination (abstract)	North Hills	CA
2006 No	ZIVATECH Corporation	New Biomass Catalytic Reforming Process for Solid Oxide Fuel Cell Power Generation (abstract)	North Hills	CA
2007 No	3M Office Supplies Division Laboratory	Development of Water-Based Materials for Post-it® Super Sticky Notes (abstract)	St. Paul	MN
2007 No	Advanced BioCatalytics Corporation	Uncoupling Biochemical Processes for Enhanced Biological Efficiency (abstract)	Irvine	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Amerikal Products Corporation	Genesis® BRIGL Wash (abstract)	Waukegan	IL
2007 No	Arch Treatment Technologies, Inc.	Wolman® AG Metal-Free Wood Preservative (abstract)	Smyrna	GA
2007 No	Arkema Inc.	Green Chemistry in the Manufacture of Thioglycolic Acid (abstract)	Philadelphia	PA
2007 No	Aspen Technology, Inc.	Correlating and Predicting Drug Molecule Solubility with a Nonrandom, Two-Liquid Segment Activity Coefficient Model (abstract)	Cambridge	MA
2007 No	Barricade International, Inc.	Environmentally and Toxicologically Safe Firefighting Gel (abstract)	Hobe Sound	FL
2007 No	BASF Corporation	A Non-HAP (Hazardous Air Pollutant) Coating for Extruded Aluminum (abstract)	Southfield	MI
2007 No	Beaulieu Group, LLC	Nexterra TM Carpet: Modified PET Carpet Backing (abstract)	Adairsville	GA
2007 No	Benchmark Performance Group, Inc.	GreensKeeper® Polymer Slurries for Oil and Gas Well Stimulation (abstract)	Houston	TX
2007 No	Bristol-Myers Squibb Company	<u>Irbesartan (Avapro®) Greenness Project</u> (abstract)	New York	NY
2007 No	Buckman Laboratories International, Inc.	Enzymes to Reduce Energy Use and Increase Recycling of Paper (abstract)	Memphis	TN
2007 Yes	Cargill, Incorporated	BiOH TM Polyols (summary)	Wayzata	MN
2007 No	Century Industrial Coatings Inc.	Nulo TM Technology: HAP-Free, Low- VOC, Water-Based, Air-Dry Coatings (abstract)	Jacksonville	TX
2007 No	Changing World Technologies, Inc.	Waste to Renewable Diesel (abstract)	West Hempstead	NY
2007 No	Cholli, Ashok L.; University of Massachusetts Lowell	High Performance Macromolecular Antioxidants for Materials: A Green Chemistry Approach (abstract)	Lowell	MA
2007 No	Crosslink	Corrosion-Resistance without Chromium: On-Demand Release of Environmentally Safe, Non-Chromium Corrosion Inhibitors from Electroactive Polymer Coatings (abstract)	Fenton	МО
2007 No	Dasgupta, Purnendu K.; The University of Texas at Arlington	A Green Analyzer for Arsenic in Drinking Water (abstract)	Arlington	TX
2007 No	Eastman Chemical Company	Optifilm Enhancer 400 – A Nonvolatile Coalescent for Formulating High-Performance, Reduced-VOC Architectural Coatings (abstract)	Kingsport	TN

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Ecology Coatings	Green Chemistry for Industrial Coatings (abstract)	Akron	ОН
2007 No	ECOSIL Technologies LLC	New One-Step, Chromate-Free Anticorrosion Coatings for Aluminum Alloys and HDG Steel (abstract)	Fairfield	ОН
2007 No	Emerson & Cuming	<u>Tin- and Copper-Compatible</u> <u>Conductive Adhesive for Lead-Free</u> <u>Electronic Circuit Assembly (abstract)</u>	Billerica	MA
2007 No	Environmentally Sensitive Solutions, Inc.	Liquid Seal and Nonhazardous Cleaner Eliminate Odor, Health, and Maintenance Problems Stifling the Acceptance and Implementation of Waterless Urinals (abstract)	Mequon	WI
2007 No	Exelus, Inc.	ExSact – A "Green" Gasoline Technology (abstract)	Livingston	NJ
2007 No	Exelus, Inc.	ExSyM – The Next Generation of Styrene Monomer Technology (abstract)	Livingston	NJ
2007 No	Fungi Perfecti, LLC	Mycopesticides and Mycoattractants (abstract)	Olympia	WA
2007 No	Georgia-Pacific Chemicals, LLC; Tao, Daniel, University of Kentucky	Georgia-Pacific Mining Reagents That Improve Recovery, Reduce Wastes, and Conserve Water and Other Natural Resources (abstract)	Decatur	GA
2007 No	Georgia-Pacific Corporation	Nitamin Steady Delivery Fertilizers for Improved Nitrogen Efficiency in Crops (abstract)	Decatur	GA
2007 No	Green Blue (Green Blue Institute)	<u>CleanGredientsTM: Systems-Based</u> <u>Information Technology for Green</u> <u>Chemistry (abstract)</u>	Charlottesville	VA
2007 Yes	Headwaters Technology Innovation	<u>Direct Synthesis of Hydrogen Peroxide</u> <u>by Selective Nanocatalyst Technology</u> (summary)	Lawrenceville	NJ
2007 No	Hutchison, James E.; University of Oregon	Greener Production of Functionalized Nanoparticles (abstract)	Eugene	OR
2007 No	IPAX Cleanogel, Inc.	The Use of Green Unikleen in Oil Spill Clean-Up, Both on Land and in Water (abstract)	Detroit	MI
2007 Yes	Krische, Michael J.; University of Texas at Austin	Hydrogen-Mediated Carbon-Carbon Bond Formation (summary)	Austin	TX
2007 No	LATA Group, The	New Green Technology for Eliminating Hydrogen Sulfide in Aqueous Systems, Especially Petroleum Industry Systems (abstract)	Ochelata	OK

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 Yes	Li, Kaichang; Oregon State University; Columbia Forest Products; Hercules Incorporated	Development and Commercial Application of Environmentally Friendly Adhesives for Wood Composites (summary)	Corvallis	OR
2007 No	Maffia, Gennaro J.; Widener University	Application of Collagen Nanofibrils in Green Processing and Synthesis (abstract)	Chester	PA
2007 No	McCullough, Richard D.; Carnegie Mellon University	Regioregular Polythiophenes as a Platform for Organic Photovoltaic Technology (abstract)	Pittsburgh	PA
2007 No	Merck & Co., Inc.	A New, Highly Efficient, <u>Environmentally Responsible Synthesis</u> of Laropiprant (MK-0524) (abstract)	Rahway	NJ
2007 No	Merck & Co., Inc.	Kilogram-Scale Purification of Pharmaceutical Candidates and Intermediates Using Preparative Supercritical Fluid Chromatography (abstract)	Rahway	NJ
2007 No	Momentive Performance Materials Inc.	Commercialization of NXT Z [®] : An Ethanol-Free, Low-VOC, High-Performance Silane for Silica Tires (abstract)	Tarrytown	NY
2007 No	Momentive Performance Materials Inc.	Novel Superspreading Siliconized Surfactants (abstract)	Tarrytown	NY
2007 No	MYCELX Technologies Corp.	Novel Device for Removing Mercury from Produced Water and Vapor Streams (abstract)	Gainesville	GA
2007 No	Nalco Company	A New Corrosion Inhibitor Reduces the Environmental Impact of Industrially Treated Water (abstract)	Naperville	IL
2007 No	Nitrate Elimination Co., Inc., The	Greener Chemistry for Nitrate Analysis: Enzymatic Reduction Method (abstract)	Lake Linden	MI
2007 Yes	NovaSterilis, Inc.	Environmentally Benign Medical Sterilization Using Supercritical Carbon Dioxide (summary)	Lansing	NY
2007 No	Osmose, Inc.	MicroPro TM Technology in Wood Preservation (abstract)	Griffin	GA
2007 No	Pantheon Chemical	PreKote® Surface Pretreatment: Replacing Hexavalent Chromium with an Environmentally Safe Solution (abstract)	Phoenix	AZ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Pirrung, Michael C.; University of California, Riverside	Environmentally Friendly Isonitrile- Based Syntheses (abstract)	Riverside	CA
2007 No	Procter & Gamble Company, The	Tide Coldwater®: Energy Conservation through Residential Laundering Innovation and Commercialization (abstract)	Cincinnati	ОН
2007 No	Schultz, Tor P.; Nicholas, Darrel D.; Mississippi State University	Enhancing the Efficacy of Totally Organic Wood Preservatives with Low- Cost, Benign Additives (abstract)	Mississippi State	MS
2007 No	Severn Trent Services	Iron Oxide for Arsenic Removal from Drinking Water (abstract)	Fort Washington	PA
2007 No	Soloshonok, Vadim A.; Ueki, Hisanori; The University of Oklahoma	Biomimetic Reductive Processes (abstract)	Norman	OK
2007 No	Stoller Enterprises, Inc.	Alternative to Methyl Bromide to Overcome Nematode Damage to Crops and Concomitantly Enhance Yield, Crop Quality, and Abiotic and Biotic Tolerance (abstract)	Houston	TX
2007 No	Super Trap Inc.	GEL-COR®: A New, Environmentally Compatible, Bullet-Trapping Medium for Small-Arms Firing Ranges (abstract)	Corona	CA
2007 No	U.S. Army, U.S. Army Edgewood Chemical Biological Center	Enzyme-Based Technology for Decontaminating Toxic Organophosphorus Compounds (abstract)	Aberdeen Proving Ground	MD
2007 No	U.S. Department of Energy, Argonne National Laboratory	Solventless Process for Making Tackifiers and Adhesives (abstract)	Washington	DC
2007 No	U.S. Department of Energy, Los Alamos National Laboratory	Green Primaries: Environmentally Friendly, Sensitive Explosives (abstract)	Los Alamos	NM
2007 No	U.S. Department of Energy, Los Alamos National Laboratory	Ultrapure Carbon and Carbon–Nitride Nanomaterials Derived from Simple Pyrolyses of Nearly Chock-Full Nitrogen Compounds (abstract)	Los Alamos	NM
2007 No	van Ooij, Wim J.; University of Cincinnati	Novel, One-Step, Chromate-Free Coatings Containing Anticorrosion Pigments to Replace Chromate Pretreatment and Pigments (abstract)	Cincinnati	ОН
2007 No	Velocys Inc.	Olefins by High-Intensity Oxidation (abstract)	Plain City	ОН

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Zhang, Xumu; The Pennsylvania State University	Practical Asymmetric Catalytic Hydrogenation (abstract)	University Park	PA
2007 No	Zhao, Huimin; van der Donk, Wilfred A.; Metcalf, William W.; University of Illinois	A Novel Phosphite Dehydrogenase Based NAD(P)H Regeneration Technology for Industrial Biocatalysis (abstract)	Urbana	IL
2008 No	Adventus Group, The	EHC TM for a Greener Groundwater Treatment Technology (abstract)	Freeport	IL
2008 No	Arkema Inc.	Replacement of Perfluorinated Alkyl Surfactants with Nonfluorinated Surfactants in Polymer Manufacturing (abstract)	King of Prussia	PA
2008 No	Ashland Inc.	GEOSET NEO®: Low Emission Technology for the Metal Casting Industry (abstract)	Dublin	ОН
2008 No	Ashland Inc.	Reducing the Environmental, Health and Safety Impact of Cooling Water Treatment Programs (abstract)	Boonton	NJ
2008 No	Ashland Inc.	Solventless, Low-Toxicity, Thermosetting Oligomers that Require Only Low Energy to Cure (abstract)	Dublin	ОН
2008 No	ATK Lake City Ammunition Division	P4rimer TM : A Non-Toxic, Heavy- Metal-Free Primer Fueled by Red Phosphorus for Small Arms Cartridges (abstract)	Independence	МО
2008 No	Augustine, Robert L.; Seton Hall University; NutraSweet Corporation, The	Bromine Free, TEMPO Based Catalyst System for the Oxidation of Alcohols (abstract)	South Orange	NJ
2008 Yes	Battelle	Development and Commercialization of Biobased Toners (summary)	Columbus	ОН
2008 No	ChK group, Inc.	Nanophase Mn(VII) Oxide: Synthesis using Green Technology and Applications (abstract)	Plano	TX
2008 No	Codexis, Inc.	Greening Montelukast Manufacture: Replacing a Stoichiometric Chiral Boron Reagent with a Green-by- Design, Economical Biocatalytic Reduction Enabled by Directed Evolution (abstract)	Redwood City	CA
2008 No	Cutting Edge Formulations, Inc.	Nature's Avenger® Organic Herbicide: A Fast-Acting, Highly Effective, Organic Alternative to Synthetic and Natural Herbicides (abstract)	Buford	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	Cytec Industries Inc.	Cytec Innovation Management System: Sustainable Development of New Products (abstract)	West Paterson	NJ
2008 No	Cytec Industries Inc.	Revolutionizing Energy-Curing Resins for Food Packaging Applications (abstract)	West Paterson	NJ
2008 Yes	Dow AgroSciences	Spinetoram: Enhancing a Natural Product for Insect Control (summary)	Indianapolis	IN
2008 No	Dow Chemical Company	Novel Process for Producing Polyols Based on Natural Oils (abstract)	Midland	MI
2008 No	Dow Corning Corporation	Water and Energy Conservation in Denim Finishing (abstract)	Midland	MI
2008 No	DuraBan International, Inc.	Environmentally Friendly Antimicrobial Surface Treatment (abstract)	Buffalo	MN
2008 No	Eastman Chemical Company	IntegRex Technology (abstract)	Kingsport	TN
2008 No	Eli Lilly and Company	A Practical and Green Chemical Strategy for the Manufacture of Neurokinin 1 Antagonist, LY686017 (abstract)	Indianapolis	IN
2008 No	EverNu Technology, LLC	Enabling Technology for Methacrylic Acid Production using Isobutane as the Feedstock (abstract)	Maple Glen	PA
2008 No	EverTech LLC	Everdex-Enhanced Alowood (abstract)	Ferndale	WA
2008 No	G3 Technology Innovations, LLC	Surface Functionalized Nanomaterials: Significantly Reducing Fluorochemicals in Consumer Items (abstract)	Pittsford	NY
2008 No	GlaxoSmithKline	GlaxoSmithKline's Eco-Design Toolkit TM (abstract)	Philadelphia	PA
2008 No	Hach Company	Arsenic-Free SPADNS Chemistry for Fluoride Analysis in Water (abstract)	Loveland	СО
2008 No	Huntsman Corporation	G2 Catalyst for New and Improved SURFONIC® Non-Ionic Surfactants (abstract)	The Woodlands	TX
2008 No	Inland Environmental Resources, Inc.	Environmentally Friendly Antacid Formulations for Wastewater Treatment (abstract)	Pasco	WA
2008 No	International Polyol Chemicals, Inc. (IPCI)	Production of Diverse Industrial Glycols from Renewable Six and Five- Carbon Sugars and Glycerin, the Byproduct of Biodiesel Manufacture (abstract)	Ephrata	WA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	Jiang, Shaoyi; University of Washington	Development of Environmentally Benign Nonfouling Materials and Coatings for Marine Applications (abstract)	Seattle	WA
2008 No	Johnson & Johnson	Application of Green Chemistry Principles in the Scale-Up of the Darunavir Process (abstract)	New Brunswick	NJ
2008 No	Leadbeater, Nicholas E.; University of Connecticut	Microwave Heating as an Enabling Tool for Greener Synthesis (abstract)	Storrs	CT
2008 No	Lubrizol Corporation, The	Novel Green Chemistries Extend the Useful Life of Automobile Catalytic Converters and Reduce Exhaust Gaseous Emissions (abstract)	Wickliffe	ОН
2008 Yes	Maleczka, Robert E., Jr.; Milton R. Smith, III; Michigan State University	Green Chemistry for Preparing Boronic Esters (summary)	East Lansing	MI
2008 No	MIOX Corporation	On-Site Generation of Mixed Oxidants as a Safe, Green Alternative to Chlorine Gas and Concentrated Bulk Bleach (abstract)	Albuquerque	NM
2008 Yes	Nalco Company	3D TRASAR® Technology (summary)	Naperville	IL
2008 No	NCH Corporation	System for Bioremediation of Effluents (abstract)	Irving	TX
2008 No	Organic Recovery, LLC.	Biochemical Hydrolyzation of Organics in Food Wastes into a Liquid Fertilizer and Soil Amendment (abstract)	Pompano Beach	FL
2008 No	Peng, Xiaogang; University of Arkansas; Nanomaterials and Nanofabrication Laboratories, LLC (NN- Labs)	Doped Semiconductor Nanocrystals as Heavy-Metal-Free Quantum Dots (abstract)	Fayetteville	AR
2008 No	Pfizer, Inc.	Convergent Green Synthesis of Linezolid (Zyvox TM), an Oxazolidinone Antibacterial Agent (abstract)	Kalamazoo	MI
2008 No	Pyrotechnique by Grucci, Inc.	Perchlorate-Free Pyrotechnic Composition for Military Training Munitions (abstract)	Brookhaven	NY
2008 No	Ragauskas, Arthur J.; Georgia Institute of Technology	Developing Lignocellulosic Biorefineries (abstract)	Atlanta	GA
2008 No	Rhein Chemie Corporation	Additives for Optimizing Renewable Resources in the Production of	Chardon	ОН

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Polyurethane Systems and Plastics (abstract)		
2008 No	Roche Carolina Inc.	Scalable Non-Aqueous Process to Prepare Water-Soluble Aminodiol (abstract)	Florence	SC
2008 No	Sepracor, Inc.	Adventures in Green Chemistry (abstract)	Marlborough	MA
2008 Yes	SiGNa Chemistry, Inc.	New Stabilized Alkali Metals for Safer, Sustainable Syntheses (summary)	New York	NY
2008 No	Specialty Fertilizer Products	Biodegradable, Water-Soluble Anionic Polymers, Prepared in an Environmentally Benign Process, Enhance the Efficiency of Phosphorus Use by Plants (abstract)	Belton	МО
2008 No	Tennant Company	ech2o TM - Electrically Charged Water (abstract)	Minneapolis	MN
2008 No	Thames, S. F.; Rawlins, J. W.; The University of Southern Mississippi	Vegetable Oil Based Macromonomers in Emulsion Polymers for High- Performance, Zero-VOC Architectural Coatings (abstract)	Hattiesburg	MS
2008 No	Thermo Fisher Scientific	Green pH Electrodes (abstract)	Beverly	MA
2008 No	Torch Technologies LLC	Manufactured Firelogs Based on Whole Timber (abstract)	Ferndale	WA
2008 No	TyraTech, Inc.	Greening Insecticides and Parasiticides (abstract)	San Francisco	CA
2008 No	Wildeman, Thomas; Colorado School of Mines	Passive Treatment of Metal- Contaminated Water (abstract)	Golden	СО
2009 No	$3M^{TM}$	Reformulation of 3M TM Neutral Cleaner and 3M TM General Purpose Cleaner for the 3M TM Twist 'n Fill TM Chemical Management System Reduces Air Pollution and Employee Health Hazards (abstract)	St. Paul	MN
2009 No	American Ordnance LLC	Inert Filler TB-1 (abstract)	Middletown	IA
2009 No	Ashland Hercules Water Technologies	Pulp Mill Defoamers Based on Vegetable Oil (abstract)	Wilmington	DE
2009 No	Ashland Inc.	Water-Based Refractory Coatings with Wet/Dry Color Change Indication (abstract)	Dublin	ОН
2009 No	Bayer MaterialScience LLC	AURA® Infusion Technology: A Green Method to Incorporate Color and Performance Additives (abstract)	Pittsburgh	PA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 Yes	CEM Corporation	Innovative Analyzer Tags Proteins for Fast, Accurate Results without Hazardous Chemicals or High Temperatures (summary and podcast)	Matthews	NC
2009 No	Clorox Company, The	GreenWorks TM Natural Cleaners from the Makers of Clorox: Home Cleaning Products (abstract)	Pleasanton	CA
2009 No	Codexis, Inc.	Greening Atorvastatin Manufacture: Replacing a Wasteful, Cryogenic Borohydride Reduction with a Green- by-Design, More Economical Biocatalytic Reduction for a Higher Quality Product (abstract)	Redwood City	CA
2009 No	Davis, James Hillard Jr.; University of South Alabama	Liquid but Nonvolatile Sulfonic Acids and Amines: Greener Chemicals for Greening Processes (abstract)	Mobile	AL
2009 No	Doty Energy	Recycling Carbon Dioxide into Carbon-Neutral Liquid Fuels (abstract)	Columbia	SC
2009 No	Dow Chemical Company, The	Glycerin to Epichlorohydrin Process: How Green is my Epichlorohydrin? (abstract)	Freeport	TX
2009 Yes	Eastman Chemical Company	A Solvent-Free Biocatalytic Process for Cosmetic and Personal Care Ingredients (summary and podcast)	Kingsport	TN
2009 No	Ecolab Inc.	Wash 'n Walk TM Floor Care System (abstract)	Inver Grove Heights	MN
2009 No	Eli Lilly and Company	New Manufacturing Route for Arzoxifene Hydrochloride (abstract)	Indianapolis	IN
2009 No	FlyAshDirect Ltd.; Cognis Corporation	Carbon Blocker TM Fly Ash Conditioning Treatment (abstract)	Cincinnati	ОН
2009 No	French Creek Software, Inc	Chemical Treatment Modeling and Optimization Software: The French Creek Software Calculation Engine (abstract)	Kimberton	PA
2009 No	Gill, Raminderjit (Sonam); Alvarez, Jessica; University of California, Santa Barbara	The University of California, Santa Barbara Green Chemistry Initiative (abstract)	Santa Barbara	CA
2009 No	GVD Corporation	Novel Solvent-Free Fluoropolymer Coating Process (abstract)	Cambridge	MA
2009 No	Gyberg, Arlin E., Augsburg College; SarTec Corporation	The Mcgyan Process: A Green Synthetic Route for Biodiesel Production (abstract)	Anoka	MN
2009 No	Henkel Corporation	Aquence® Autodeposition Coating: The Smart Coating Solution (abstract)	Madison Heights	MI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Henkel Corporation	Bonderite® TecTalis: Next-Generation Coating (abstract)	Madison Heights	MI
2009 No	Huntsman Advanced Materials Corporation	Manufacturing More Efficient Fuel Cells to Reduce Carbon Dioxide Emissions (abstract)	The Woodlands	TX
2009 No	Ingenuity IEQ, Inc.	Green Chemistry for Energy Conservation and Indoor Environmental Quality (abstract)	Midland	MI
2009 Yes	Matyjaszewski, Krzysztof; Carnegie Mellon University	Atom Transfer Radical Polymerization: Low-impact Polymerization Using a Copper Catalyst and Environmentally Friendly Reducing Agents (summary and podcast)	Pittsburgh	PA
2009 No	Merck & Co., Inc.	Green Chemistry in Action: A Remarkably Efficient and Sustainable Synthesis of the HIV Integrase Inhibitor, Raltegravir TM (abstract)	Rahway	NJ
2009 No	Method Products	Method Smarty Dish for Fish: An Environmentally Responsible and Effective Cleaning Solution: No Phosphates, Acrylates, or Ethylenediaminetetraacetic Acid (abstract)	San Francisco	CA
2009 No	Milliken & Company	TractionBack®: Alternative Green Adhesives Solutions for Textile Composites Used in Commercial Buildings (abstract)	Spartanburg	SC
2009 No	Narayan, Ramani; Michigan State University: KTM Industries, Inc.	Biodegradable, Chemically Modified Starch Polymers for Protective Foam Packaging and Insulation Applications (abstract)	East Lansing	MI
2009 No	Ozone International LLC	Cleaning and Disinfecting with Ozone: Making Green Chemistry with WhiteWater TM Ozone (abstract)	Bainbridge Island	WA
2009 No	Plasmatreat North America Inc.; Ford Motor Company	Openair TM Plasma Surface Treatment: Reducing Emissions of Volatile Organic Compounds and Improving Environmentally Sensitive Paint Processes (abstract)	Dearborn	MI
2009 No	PPG Industries, Inc.	Green Logic TM : Chitosan-Enhanced Paint Detackifier (abstract)	Troy	MI
2009 No	PPG Industries, Inc.	Zircobond TM Pretreatment (abstract)	Troy	MI
2009 Yes	Procter & Gamble Company, the; Cook	Chempol® MPS Resins and Sefose® Sucrose Esters Enable High-	Cincinnati	ОН

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Composites and Polymers Company SABIC Innovative Plastics	Performance Low-VOC Alkyd Paints and Coatings (summary and podcast) Chemical Conversion of Post- Consumer Recycled Polyethylene Terephthalate Waste into Sustainable Valox iQ TM and Xenoy iQ TM Engineering Thermoplastic Products (abstract)	Mount Vernon	IN
2009 No	Schweitzer, Linda; Oakland University; Reed, Robert; University of Missouri; Earth Science Laboratories, Inc.	EarthTec®: Green Water Treatment (abstract)	Rochester	MI
2009 No	Sherwin-Williams Company, The	High-Solids Hybrid Sucrose Ester Polymer Technology (abstract)	Cleveland	ОН
2009 No	STERIS Corporation; Virox Technologies	An Alternative to Aldehyde-Based Liquid Chemical Sterilants and High- Level Disinfectants for Reprocessing Heat-Sensitive, Semi-Critical Medical Instruments (abstract)	Mentor	ОН
2009 No	TDA Research, Inc.; Cytec Industries Inc.	Replacement for Solvent-Based, Chromate-Containing Primer (abstract)	Golden	СО
2009 No	U.S. Department of Energy, Argonne National Laboratory	Diesel DeNO _x Catalyst (abstract)	Argonne	IL
2009 No	U.S. Department of Energy, Argonne National Laboratory	Resin Wafer Technology (abstract)	Argonne	IL
2009 No	VeruTEK Technologies, Inc.	Green Synthesis of Nanometal Catalysts and Plant Surfactant-Based, In Situ Chemical Oxidation for Sustainable Treatment and Remediation (abstract)	Bloomfield	СТ
2009 Yes	Virent Energy Systems, Inc.	BioForming® Process: Catalytic Conversion of Plant Sugars into Liquid Hydrocarbon Fuels (summary and podcast)	Madison	WI
2009 No	Water Conservation Technology International, Inc.	Sustainable, Natural Green Chemistry for Cooling Water Treatment (abstract)	Temecula	CA
2009 No	Wender, Paul A.; Stanford University	Green Chemistry through Function- Oriented Synthesis, Step Economy, and Ideal Synthesis (abstract)	Stanford	CA
2009 No	ZeaChem Inc.	Cellulose-Based Fuels and Intermediate Chemicals (abstract)	Lakewood	СО

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Zep Inc.	Renewable-Resource Industrial Products (abstract)	Atlanta	GA
2010 No	A.S. Trust & Holdings, Inc.	HCR-188C1: A.S. Trust & Holdings, Inc.'s All-New, High-Efficiency Hydrocarbon Refrigerant With No Impact on Global Warming or the Ozone Layer (abstract)	Kaneohe	НІ
2010 No	Advanced Technology Materials, Inc.	RegenSi TM : A Wafer Reclaim Solution with a Low Carbon Footprint that Extends the Life Cycle of Silicon Test Wafers (abstract)	Danbury	CT
2010 No	AkzoNobel Functional Chemicals, LLC	Bipolar Membrane Electrodialysis for Greener Processing of Chelates (abstract)	Chicago	IL
2010 No	APTech Group, Inc.	Safer, Sustainable, Biodegradable, Solid-State Chemistry for Treating Cooling Water Systems (abstract)	Cincinnati	ОН
2010 No	Baker Hughes Incorporated	Highly Water-Dispersed Oilfield Corrosion Inhibitors Eliminate over One Million Pounds of Nonrenewable Solvents Annually (abstract)	Sugar Land	TX
2010 No	Bayer MaterialScience, LLC	IMPACT Technology: A Greener Polyether Polyol Process (abstract)	South Charleston	WV
2010 No	BCR Environmental LLC; SABIC Innovative Plastics	Recovering and Using a Formerly Incinerated Sodium Nitrite Waste Stream to Disinfect and Stabilize Municipal Biosolids (abstract)	Jacksonville	FL
2010 No	Bend Research Inc.	Spray-Dried Dispersions Based on Hydroxypropyl Methylcellulose Acetate Succinate for Delivery of Low- Solubility Drugs (abstract)	Bend	OR
2010 No	Berry Plastics; Flame Chk Inc.; Chemische Fabrik Budenheim KG	Nonhalogenated Flame Retardant for Use in High-Performance Adhesives and Coatings (abstract)	Bristol	RI
2010 No	BioFuelBox, Inc.	Supercritical—Solid Catalyst Reaction Process for Converting Waste Fats, Oils, and Greases into Premium Biodiesel (abstract)	San Jose	CA
2010 No	Cargill, Incorporated	The Development and Commercialization of a Low-pH, Lactic Acid Process for Renewable Plastics (abstract)	Minnetonka	MN
2010 No	Chemguard Ltd.	Elimination of Perfluorinated Alkyl Surfactants from Fire-Fighting Foams (abstract)	Mansfield	TX

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2010 Yes	Clarke	Natular TM Larvicide: Adapting Spinosad for Next-Generation Mosquito Control (summary and podcast)	Roselle	IL
2010 No	Codexis, Inc.	Rapid Enablement of Green Processes for Chiral Alcohols by the Codex TM Panel of Robust, Divergent Evolvants of One Ancestral Ketoreductase (abstract)	Redwood City	CA
2010 No	Cortec Corporation	Corrosion Control with a Greener Pathway (abstract)	St. Paul	MN
2010 No	Cytec Industries Inc.	UV-Curable Pressure Sensitive Adhesive (abstract)	Woodland Park	NJ
2010 No	Dionex Corporation	Accelerated Solvent Extraction with Solvent Saver Mode TM : Reducing Organic Solvent Consumption and Waste in Laboratories (abstract)	Sunnyvale	CA
2010 No	Dow Chemical Company, The	An Innovative Approach to Texturizers without Hydrofluoric Acid or Nitric Acid for Multicrystalline Silicon Photovoltaics (abstract)	Marlborough	MA
2010 No	Dow Chemical Company, The	Energy Savings from a New Manufacturing Route for Vinyl Methyl Ether (abstract)	Midland	MI
2010 Yes	Dow Chemical Company, The; BASF	Innovative, Environmentally Benign Production of Propylene Oxide via Hydrogen Peroxide (summary and podcast)	Midland	MI
2010 No	E. I. du Pont de Nemours and Company	Cerenol® Polyol Technology Platform for a Sustainable Bio-Based Economy (abstract)	Wilmington	DE
2010 No	Henkel Technologies	A Safer, Environmentally Superior, High-Performance Acid Inhibitor Designed to Protect Metallic Infrastructure during Industrial Cleaning (abstract)	Madison Heights	MI
2010 Yes	Liao, James C.; Easel Biotechnologies, LLC; University of California, Los Angeles	Recycling Carbon Dioxide to Biosynthesize Higher Alcohols (summary and podcast)	Los Angeles	CA
2010 Yes	LS9, Inc.	Microbial Production of Renewable Petroleum TM Fuels and Chemicals (summary and podcast)	South San Francisco	CA
2010 No	MacGillivray, Leonard R.; University of Iowa;	Template-Controlled Reactivity in the Organic Solid State (abstract)	Iowa City	IA

Year Winner	•	Nominated Technology Title (abstract/summary)	City	St.
	University of Iowa Research Foundation			
2010 Yes	Merck & Co., Inc.; Codexis, Inc.	Greener Manufacturing of Sitagliptin Enabled by an Evolved Transaminase (summary and podcast)	Rahway	NJ
2010 No	Pennakem LLC	2-Methyltetrahydrofuran: A Green Alternative to Oil Derived Ethers and Chlorinated Solvents (abstract)	Memphis	TN
2010 No	Preventive Technology Inc.	PRE-TEC 3000®: An Environmentally Friendly Wood Treatment (abstract)	Greenville	SC
2010 No	STERIS Corporation	An Environmentally Friendly Alternative for Cleaning Surgical Instruments in Healthcare Facilities (abstract)	Mentor	ОН
2010 No	Sun, Xiuzhi Susan; Kansas State University; SoyResin, LLC	Green Process of Unfolding Soy Protein Polymers for Green Adhesives (abstract)	Manhattan	KS
2010 No	Thermphos USA Corp.	Dequest® PB: Carboxymethyl Inulin, A Versatile Scale Inhibitor from the Roots of Chicory (abstract)	Mechanicsville	VA
2010 No	Troy Corporation	Source Reduction and Sustainability through Use of Mergal® 753 Antimicrobial Preservative (abstract)	Florham Park	NJ
2011 No	Aeroclay, Inc.; Schiraldi, David; Case Western Reserve University	AeroClay®: A Green Aerogel for Industry (abstract)	Solon	ОН
2011 No	BASF Corporation	Green Sense SM Concrete (abstract)	Beachwood	ОН
2011 No	Battelle Memorial Institute	Bio-Derived Green Primary Polyvinyl Chloride Plasticizers with Improved Thermal Stability and Plasticization Efficiency (abstract)	Columbus	ОН
2011 Yes	BioAmber, Inc.	Integrated Production and Downstream Applications of Biobased Succinic Acid (summary and podcast)	Minneapolis	MN
2011 No	Champion Technologies, Inc.	Lysine-Based Phosphonate Scale Inhibitor with Improved Biodegradation and Maintained Performance (abstract)	Houston	TX
2011 No	Chemical Safety Software	Source Reduction through Software	Emeryville	CA
2011 No	Commercial Fluid Power LLC	Elimination of Hexavalent Chromium from Hydraulic and Pneumatic Tubing and Bar (abstract)	La Porte	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Cytec Industries Inc.	iSUSTAIN® Green Chemistry Index Tool for Sustainable Development (abstract)	Woodland Park	NJ
2011 No	Cytec Industries Inc.	Waterborne, Ambient-Cure, Stain-Blocking Primer (abstract)	Woodland Park	NJ
2011 No	Desilube; United Soybean Board	<u>High Performance Soy-Based</u> <u>Metalworking Fluid (abstract)</u>	St. Louis	MO
2011 No	Diversey Inc.	ReNew Air Scrubber Technology (abstract)	Sturtevant	WI
2011 No	Dober Chemical Corporation	A Safer, Less Toxic, Reliable, and Green Water Treatment by Smart Release® Technology (abstract)	Woodridge	IL
2011 No	Earth Friendly Products	Earth Conscious Chemistry: Eliminating 1,4 Dioxane in Cleaning Products (abstract)	Garden Grove	CA
2011 No	Ecolab Inc.	<u>DryExx Conveyor Lubricant Program</u> (abstract)	Eagan	MN
2011 No	Ecolab Inc.	Low-Temperature Cleaning In Place (abstract)	Eagan	MN
2011 No	Eli Lilly and Company	Continuous Processing Enables a Convergent Route to a New Drug Candidate: LY2624803*H3PO4 (abstract)	Indianapolis	IN
2011 No	Finn, M. G.; The Scripps Research Institute	Metal Adhesive Polymers from Cu(I)- Catalyzed Azide-Alkyne Cycloaddition: a New Approach to Solder Replacements (abstract)	La Jolla	CA
2011 No	FMC Corporation	VigorOx® Biocide: Advancing Environmentally Responsible Energy Production (abstract)	Philadelphia	PA
2011 No	Foam Supplies, Inc.	Ecomate® Environmentally Benign Blowing Agent for Polyurethane Foams (abstract)	Earth City	МО
2011 No	Fuel Energy Service Corporation	Surachi Fuel Technology (abstract)	Mobile	AL
2011 No	Genencor	Gentle Power Bleach TM : A Revolutionary Enzymatic Textile Bleaching System (abstract)	Palo Alto	CA
2011 No	General Motors	Applying Green Chemistry Principles to Enable Zero-Waste Manufacturing (abstract)	Grand Blanc	MI
2011 Yes	Genomatica	Production of Basic Chemicals from Renewable Feedstocks at Lower Cost (summary and podcast)	San Diego	CA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Hach Company	Simplified Total Kjeldahl Nitrogen Method for Wastewater: A Green Alternative to Traditional Kjeldahl Methodology (abstract)	Loveland	СО
2011 No	JEEN International	Polyelectrolytes: Reduce Your Carbon Footprint Using an Eco-Friendly Technology to Disperse Wax in Water without Heat (abstract)	Fairfield	NJ
2011 Yes	Kraton Performance Polymers, Inc.	NEXAR TM Polymer Membrane Technology (summary and podcast)	Houston	TX
2011 Yes	Lipshutz, Bruce H.; University of California, Santa Barbara	Towards Ending Our Dependence on Organic Solvents (summary and podcast)	Santa Barbara	CA
2011 No	L'Oreal USA	Kiehl's "Aloe Vera" Biodegradable Liquid Body Cleanser (abstract)	Clark	NJ
2011 No	Lubrizol Corporation, The	Positive Environmental Impact of Novel Crankcase Lubricant Technology (abstract)	Wickliffe	ОН
2011 No	Natural State Research, Inc.	Conversion of Waste Plastics into Fuel (abstract)	Stamford	CT
2011 No	Novozymes North America, Inc.	Enabling a Sustainable Biorefinery with Green Chemistry: Enzymatic Hydrolysis of Lignocellulosic Biomass for the Production of Advanced Biofuels and Renewable Chemicals (abstract)	Franklinton	NC
2011 No	Orono Spectral Solutions	Device and Method for Analyzing Oil and Grease in Wastewaters without Solvent (abstract)	Old Town	ME
2011 No	Pacific Scientific Energetic Materials Co.	New Lead Free Materials for Replacement of Existing Primary Explosives (abstract)	Chandler	AZ
2011 No	Piedmont Biofuels Industrial, LLC	Enzymatic Catalysis for Biodiesel Production (abstract)	Pittsboro	NC
2011 No	Polar Industries, Inc.	Zero-VOC, BioBased HiOmega® Linseed Oil Epoxies, Adhesives, and Alkyd Resins as Replacements for Epichlorohydrin— Epoxy Resins and Other VOC- containing Coatings, Paints, Adhesives, and Epoxies (abstract)	Miami	FL
2011 No	PPG Industries, Inc.	Waterborne Refi nish Coatings Manufacture (abstract)	Strongsville	ОН
2011 No	Rochester Midland Corporation	Enhance O ₂ Soil Remover for Commercial Fryers (abstract)	Rochester	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Rochester Midland Corporation	PRS Water Damage PreClean: Biological Cleaning for Restoration and Remediation (abstract)	Rochester	NY
2011 No	Savage, Phillip E.; University of Michigan	Terephthalic Acid Synthesis at High Concentrations in High-Temperature Liquid Water (abstract)	Ann Arbor	MI
2011 Yes	Sherwin Williams Company, The	Water-based Acrylic Alkyd Technology (summary and podcast)	Cleveland	ОН
2011 No	Sigma-Aldrich	Green Chemistry Process for the Large-Scale Manufacture of Polyamino Acids (abstract)		МО
2011 No	Solvair LLC	Solvair Cleaning System (abstract)	Naperville	IL
2011 No	Steward Advanced Materials	Development and Commercial Application of SAMMS®: A Novel Compound that Adsorbs and Removes Mercury and Other Toxic Heavy Metals (abstract)	Chattanooga	TN
2011 No	Terrabon, Inc.	Conversion of Municipal Solid Wastes to Drop-In Fuels and Chemicals (abstract)	Houston	TX
2011 No	Timber Treatment Technologies, LLC	TimberSIL® (abstract)	Springfield	VA
2011 No	Tower Oil & Technology Co.	Saf-T-Vanish®: A Zero-VOC, Green Replacement for Petroleum Solvent Vanish Oils (abstract)	Chicago	IL
2011 No	van Heiningen, Adriaan; Genco, Joseph; Pendse, Hemant; van Walsum, Peter; University of Maine	Pre-Pulping Extraction of Hardwood Chips to Recover Hemicelluloses as a High-Value Renewable Chemical Feedstock that Reduces Waste and Saves Fossil Fuel (abstract)	Orono	ME
2011 No	WM Barr & Company, Inc.	Klean-Strip® Green TM Safer Paint Thinner (abstract)	Memphis	TN
2012 No	Albemarle Corporation	Concrete-Friendly TM Powdered Active Carbon (C-PAC TM) to Remove Mercury from Flue Gas Safely (abstract)	Baton Rouge	LA
2012 No	Armstrong World Industries, Inc.	BioBased Tile®: A Non-PVC Flooring Made with Rapidly Renewable Resources (abstract)	Lancaster	PA
2012 No	Ashland Performance Materials	Envirez TM Technology: Incorporating Renewable and Recycled Feedstocks into Unsaturated Polyester Resins (abstract)	Dublin	ОН
2012 No	BASF Corporation	Compostable Multilayer Food Packaging (abstract)	Wyandotte	MI

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2012 No	Bayer MaterialScience and Bayer AG	One-Component, UV-Curable, Waterborne Polyurethane Coatings (abstract)	Pittsburgh	PA
2012 No	BCD Group-II, Inc.	Producing Chemicals and Carbon from Waste Tires, Plastics, Carpet, and Biomass (abstract)	Cincinnati	ОН
2012 No	Bennett, Jacqueline; State University of New York Oneonta; SUNY Research Foundation	Ethyl L-Lactate as a Tunable Solvent for Greener Synthesis of Diaryl Aldimines (abstract)	Oneonta	NY
2012 No	Blue Marble Biomaterials LLC	Greening the Design of Chemical Production with Microbes (abstract)	Missoula	MT
2012 Yes	Buckman International, Inc.	Enzymes Reduce the Energy and Wood Fiber Required to Manufacture High- Quality Paper and Paperboard (summary and podcast)	Memphis	TN
2012 No	CCP Composites	FIREBLOCK TM Intumescent Resin (abstract)	Kansas City	МО
2012 Yes	Coates, Geoffrey W.; Cornell University	Synthesizing Biodegradable Polymers from Carbon Dioxide and Carbon MoNO _x ide (summary and podcast)	Ithaca	NY
2012 Yes	Codexis, Inc.; Yi Tang; University of California, Los Angeles	An Efficient Biocatalytic Process to Manufacture Simvastatin (summary and podcast)	Redwood City	CA
2012 No	Colonial Chemical, Inc.	Suga®Nate: A Safer, Milder, Greener Surfactant (abstract)	South Pittsburg	TN
2012 No	Cooper Power Systems	Vegetable Oil Insulating Fluid for Improved High Voltage Transformer Capability (abstract)	Waukesha	WI
2012 No	CPS Biofuels, Inc.	Glycerol tert-Butyl Ether (GTBE): A Biofuel Additive for Today (abstract)	Virginia Beach	VA
2012 No	Cytec Industries Inc.	Saturated Polyester—Phenolic Resin Systems Eliminate Bisphenol A and Epoxy from Interior Can Coatings for Food Packaging (abstract)	Woodland Park	NJ
2012 Yes	Cytec Industries Inc.	MAX HT® Bayer Sodalite Scale Inhibitor (summary and podcast)	Woodland Park	NJ
2012 No	DuPont Company	Chlorantraniliprole: Increased Food Production, Reduced Risks, More Sustainable Agriculture (abstract)	Wilmington	DE
2012 No	DuPont Company and Butamax TM Advanced BioFuels LLC	Production of Isobutanol from the Synergy between Metabolic and Process Engineering (abstract)	Wilmington	DE

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2012 No	e2e Materials, Inc.	Formaldehyde-Free, High-Strength Biocomposites from Sustainable Resources (abstract)	Ithaca	NY
2012 No	Ecology Coatings	Generally Recognized as Safe (GRAS) Coatings (abstract)	Warren	MI
2012 No	Electrovaya Inc.	Zero-Emission Production of the Green Lithium Ion SuperPolymer® Battery (abstract)	Malta	NY
2012 Yes	Elevance Renewable Sciences, Inc.	Using Metathesis Catalysis to Produce High-Performing, Green Specialty Chemicals at Advantageous Costs (summary and podcast)	Woodridge	IL
2012 No	Eli Lilly and Company	Grignards Going Greener by Continuous Processing (abstract)	Indianapolis	IN
2012 No	IBM Corporation	Catalytic Treatment of Hydrogen Peroxide in IBM Semiconductor Wastewater (abstract)	Hopewell Junction	NY
2012 No	IBM Corporation	Elimination of PFOS and PFOA in IBM Semiconductor Manufacturing Processes and Development of Photoacid Generators Free of Perfluoroalkyl Sulfonates (abstract)	Hopewell Junction	NY
2012 No	InfiChem Polymers, LLC	InfiGreen TM Polyols (abstract)	Sterling Heights	MI
2012 No	John, George; The City College of the City University of New York	Sustainable Molecular Design through Biorefineries: Biomass as an Enabling Platform for Safe Oil-Thickening Agents (Amphiphiles) (abstract)	New York	NY
2012 No	Johnson & Johnson Consumer Companies, Inc.; AkzoNobel Surface Chemistry LLC	NATRASURF TM PS-111 Polymeric Surfactant: Achieving Next Generation Mildness in Personal Care Products with a Reduced Environmental Footprint (abstract)	Skillman	NJ
2012 No	Kop-Coat, Inc.	<u>Tru-Core® Protection System for Wood</u> (abstract)	Pittsburg	PA
2012 No	LubriGreen Biosynthetics	Development and Commercialization of Oleic Estolide Esters (abstract)	Irvine	CA
2012 No	Mascal, Mark; University of California, Davis	Chemical Conversion of Biomass into New Generations of Renewable Fuels, Polymers, and Value-Added Products (abstract)	Davis	CA
2012 No	Masterchem Brands	KILZ MAX TM PRIMER-SEALER- STAINBLOCKER: Oil-Based Performance in a Water-Based Formula	Chesterfield	МО

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		with Less Environmental Impact (abstract)		
2012 No	NALCO	NALCO's APEX TM Program: Sustainable Technology for Paint Detackification (abstract)	Coraopolis	PA
2012 No	Novomer, Inc.	High-Performance Polyols from CO ₂ at Low Cost (abstract)	Waltham	MA
2012 No	NSR Technologies, Inc.	Electrodialysis and Chromatographic Separation Technology for Chlorine- Free Production of Potassium Hydroxide and Hydrochloric Acid (abstract)	Decatur	IL
2012 No	OPX Biotechnologies, Inc.	Producing Industrial Chemicals by Fermenting Renewable Feedstocks at a Lower Cost (abstract)	Boulder	СО
2012 No	Performance Chemicals, LLC	BURN-OUT TM Durable, Green, Nontoxic Flame Retardant (abstract)	Concord	NH
2012 No	Pfizer	New Green Commercial Biocatalytic Route to Atorvastatin Calcium, the Lipitor API (abstract)	Kalamazoo	MI
2012 No	Plata, Desirée L.; Duke University	Improved Resource Use in Carbon Nanotube Synthesis via Mechanistic Understanding (abstract)	Durham	NC
2012 No		Ethylene: A Feedstock for Fine Chemical Synthesis (abstract)	Columbus	ОН
2012 No	RPS Environmental Solutions, LP	Zero-VOC Cleaning and Remediation Technology (abstract)	Dallas	TX
2012 No	SiGNa Chemistry, Inc.	Sodium Silicide: A New Alkali Metal Derivative for Safe, Sustainable, and On-Demand Generation of Hydrogen (abstract)	New York City	NY
2012 No	Tandus Flooring	Ethos TM Modular Commercial Floor Coverings (abstract)	Dalton	GA
2012 No	U.S. Department of Energy, Pacific Northwest National Laboratory; Archer Daniels Midland Company	Propylene Glycol from Renewable Resources (abstract)	Richland	WA
2012 No	Verdezyne, Inc.	Biobased Adipic Acid for Renewable Nylon and Polyurethane Resins (abstract)	Carlsbad	CA
2012 No	Verenium Corporation	Pyrolase® Cellulase Enzyme Breaker as a Biodegradable Replacement for Corrosive Acids and Oxidizers in	San Diego	CA

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Hydraulic Fracturing Operations (abstract)		
2012 No	VH Biotechnology, Inc.	Bacteriocins: A Green, Antimicrobial Pesticide (abstract)	League City	TX
2012 Yes	Waymouth, Robert M.; Stanford University; Hendrick, James L.; IBM Almaden Research Center	Organic Catalysis: A Broadly Useful Strategy for Green Polymer Chemistry (summary and podcast)	Stanford	CA
2013 No	Advanced Biocatalytics Corporation (ABC)	Changing the Nature of Surfactants: Protein-Surfactant Synergists With Enhanced Cleaning Power and Bioremediation Abilities (abstract)	Irvine	CA
2013 No	AkzoNobel Surface Chemistry, LLC	<u>Hybrid Polymers (abstract)</u>	Chicago	IL
2013 No	AnCatt Inc.	Conductive Polymer Nanodispersion (CPND) and the Environmentally Friendly Heavy-Duty Anti-Corrosion Coating Platform Technology (abstract)	Newark	DE
2013 No	Armstrong World Industries	Breakthrough Coating for Ceiling Tiles (abstract)	Lancaster	PA
2013 No	AstraZeneca and Forest Laboratories	An Order of Magnitude Improvement in Sustainability through Core Application of Green Chemistry Principles: The Process Development of Avibactam (abstract)		
2013 Yes	Cargill, Inc.	Vegetable Oil Dielectric Insulating Fluid for High-Voltage Transformers (summary)	Brookfield	WI
2013 No	Dow Chemical Company, The	INFUSE TM Olefin Block Copolymers (abstract)	Midland	MI
2013 Yes	Dow Chemical Company, The	EVOQUE TM Pre-Composite Polymer Technology (summary)	Midland	MI
2013 No	DSM Biobased Products and BP Biofuels	Sugar to Diesel (Bio-Diesel from Microbial Oil) A Sustainable, Scalable and Affordable Option to Petroleum Diesel (abstract)	Columbia	MD
2013 No	DuPont and Goodyear	An Innovative Cell Factory and Bioprocess for Production of Biolsoprene TM Monomer (abstract)	Palo Alto	CA
2013 Yes	Faraday Technology, Inc.	Functional Chrome Coatings Electrodeposited from a Trivalent Chromium Plating Electrolyte (summary)	Clayton	ОН

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	FRX POLYMERS® Inc.	Polymeric, Non-Halogenated Flame Retardants with Broad Applicability in Multiple Industries (abstract)	Chelmsford	MA
2013 No	GeoTree Technologies, Inc.	GeoSpray TM Geopolymer Mortar System for Structural Rehabilitation of Sewer and Storm Water Infrastructure (abstract)	Lafayette	СО
2013 No	Infinite Enzymes	Infinite Enzymes: Low-Cost, Plant-Based Enzymes for Converting Cellulosic Biomass into Biofuels and Other Biobased Products (abstract)	State University	AR
2013 No	International Products Corporation	Temporary Assembly Lubricants for Rubber and Plastic Articles Using Renewable Oil-in-Water Emulsion Technology (abstract)	Burlington	NJ
2013 Yes	Life Technologies Corporation	Safe, Sustainable Chemistries for the Manufacturing of PCR Reagents (summary)	Austin	TX
2013 No	Lonza, Inc.	Dantogard 2000 Preservative: An Antimicrobial Technology with Reduced Environmental Impact for Hydraulic Fracturing of Shale Gas Plays (abstract)	Allendale	NJ
2013 No	Monsanto and Biosynthetic Technologies	Vistive® Gold Soybeans and Biosynthetic Technologies Enable Biodegradable, Non-Toxic, Renewable, and Economical Industrial Bio- Lubricants (abstract)	St. Louis	МО
2013 No	Multi-Chem, A Halliburton Service	The Use of Nitrate and Selected Live Strains of Nitrate Reducing Bacteria to Replace the Use of Biocide in Hydraulic Fracturing Operations (abstract)	Houston	TX
2013 No	Myriant Corporation	Expanding the Renewable Polymers "Tool Kit" with Bio-Succinic Acid (abstract)	Woburn	MA
2013 No	Myriant Corporation	Bio-based Chemicals from Low-cost Lignocellulosic Sugars (abstract)	Woburn	MA
2013 No	Nalco Champion, An Ecolab Company	eVerified ASP560: An Environmentally Friendly Corrosion Inhibitor (abstract)	Sugar Land	TX
2013 No	New Sky Energy, LLC	Sustainable Soda Ash for the Glass Industry (abstract)	Boulder	СО

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	Novozymes	Enzymes for the Production of Economical Sugars: A Linchpin of the Carbohydrate Economy (abstract)	Franklinton	NC
2013 No	Owens Corning	Sustainability and Owens Corning's EcoTouch TM Insulation Conversion (abstract)	Newark	ОН
2013 No	Subramaniam, Bala; University of Kansas	A Greener Hydroformylation Technology (abstract)	Lawrence	KS
2013 No	Systea Scientific, LLC	Easy (1-Reagent) Nitrate Method: A Green Alternative to Traditional USEPA Approved Nitrate Methods (abstract)	Oak Brook	IL
2013 No	Thames, S. F.; Rawlins, J. W.; The University of Southern Mississippi	Formaldehyde-Free Commercial-Grade Particleboards Based Solely on Soybean Protein Adhesive (abstract)	Hattiesburg	MS
2013 No	U.S. Department of Energy, Argonne National Laboratory	Upcycling Process That Converts Unsorted Plastic Waste into Functional Carbon Materials (abstract)	Argonne	IL
2013 No	Virent, Inc.	Converting Plant Sugars into Paraxylene for 100% Renewable, 100% Recyclable Packaging and Fibers (abstract)	Madison	WI
2013 No	Washing Systems LLC	Pure Solutions Chemical Line for Laundries (abstract)	Loveland	ОН
2013 Yes	Wool, Richard P.; U Delaware	Sustainable Polymers and Composites: Optimal Design (summary)	Newark	DE
2014 No	ACTA Technology Inc.	A Greener, Safer and More Efficient Antifreeze (abstract)	Boulder	СО
2014 No	Advanced Technology Materials, Inc. (ATMI), an Entegris company	The eVOLV TM System, a Clean, Sustainable Solution to Electronic Waste (abstract)	Danbury	CT
2014 No	AkzoNobel Functional Chemicals, LLC	Improved Performance and HSE Profile of a Novel Stimulation Fluid for Oil and Natural Gas Wells (abstract)	Chicago	IL
2014 Yes	Amyris	Farnesane: a Breakthrough Renewable Hydrocarbon for Use as Diesel and Jet Fuel (summary and podcast)	Emeryville	CA
2014 No	Archroma	Earthcolors Technology (abstract)	Charlotte	NC
2014 No	Arizona Chemical Company, LLC	SYLVAROAD TM RP 1000 Performance Additive: A Sustainable, Pine-Based Additive to Enable High Re-Use of Reclaimed Asphalt Pavement (abstract)	Savannah	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Atsumi, Shota; University of California, Davis	Green Biological Production of Short and Medium Chain Esters (abstract)	Davis	CA
2014 No	Bay State Tech, LLC	Consumer Viable and Environmentally Friendly Solvent Replacements Developed From Food Grade Compounds (abstract)	Baltimore	MD
2014 No	Blair, Richard; University of Central Florida, The	The Scalable Production of Edge Functionalized Few Layer Graphene Oxide (abstract)	Orlando	FL
2014 No	Boeing Company, The; Boeing Research & Technology	Boegel Surface Activation Technology Suite (abstract)	Seattle	WA
2014 No	Copperhead Chemical Company Inc.	Novel, Effective, Safe Delivery System for Antimicrobial Agents Derived from Sustainable Vegetable Monoglycerides (abstract)	Tampa	FL
2014 No	Cytec Industries Inc.	Cylinderized Phosphine as Safer, More Environmentally Friendly Alternatives to Traditional Stored Product Fumigants (abstract)	Stamford	СТ
2014 No	Dow Chemical Company, The	Sustainable Microbial Control Treatments for Hydraulic Fracturing (abstract)	Buffalo Grove	IL
2014 No	Dow Chemical Company, The	BETAMATE TM and BETAFORCE TM Structural Adhesives Improve Automotive Fuel Efficiency and Emissions (abstract)	Midland	MI
2014 No	Dow Chemical Company, The	FORMASHIELD TM Formaldehyde Abatement Technology (abstract)	Collegeville	PA
2014 No	Dumesic, James A.; University of Wisconsin- Madison	Enzyme-Free Biomass Depolymerization Using GVL (abstract)	Madison	WI
2014 No	E&B Green Solutions	G-Clean® Line of Green Cleaning Products Designed to Clean Hydrocarbons Safely and Effectively (abstract)	Hermosa Beach	CA
2014 No	Ecolab	Environmentally Responsible Spore Control Program Through Effective Cleaning and Sanitizing of Heat Exchange Dairy Process Equipment (abstract)	Eagan	MN
2014 No	Genentech, Inc.	Targeted Chemotherapy for Solid Tumor Cancer Treatment (abstract)	South San Francisco	CA
2014 No	GreenLife Development	Naturama - Oil Surfactant, Green Degreaser and Cleaner (abstract)	Las Vegas	NV

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Gunasekaran, Sundaram; Yang, Jiang; University of Wisconsin-Madison; LignoCarbon	Green Approaches of Nanocomposite Material Synthesis for Energy Storage, Environmental Surveillance and Sustainable Food Systems (abstract)	Mountain View	CA
2014 No	Merck & Co., Inc.	An Innovative Catalytic Intramolecular Asymmetric Reductive Amination of a Dialkyl Ketone Enables a Highly Efficient, Green Synthesis of Suvorexant (MK-4305) (abstract)	Rahway	NJ
2014 No	Monsanto Company	Bt Technology, Transforming Insect Control (abstract)	St. Louis	МО
2014 No	Musolino, Bryan; University of Tennessee, Knoxville	Ultrasound Induced, Copper Mediated Homo-Coupling Using Polymer Supported Aryltrifluoroborates (abstract)	JBSA-FSH	TX
2014 No	MWV Specialty Chemicals, a division of MeadWestvaco Corporation	Evotherm® Warm Mix Asphalt Technology (abstract)	North Charleston	SC
2014 No	Novinda Corporation	Amended Silicates® HgX (abstract)	Denver	CO
2014 No	PPG Industries, Inc.	Polyethylene Terephthalate (PET) Derived Polymers for Coatings (abstract)	Pittsburgh	PA
2014 No	Pyun, Jeffrey; Glass, Richard; U of Arizona	Utilization of Elemental Sulfur as a New Chemical Feedstock for Polymeric Materials (abstract)	Tucson	AZ
2014 Yes	QD Vision, Inc.	Greener Quantum Dot Synthesis for Energy Efficient Display and Lighting Products (summary and podcast)	Lexington	MA
2014 Yes	Solazyme, Inc.	Tailored Oils Produced from Microalgal Fermentation (summary and podcast)	South San Francisco	CA
2014 Yes	Solberg Company, The	RE-HEALING TM Foam Concentrates— Effective Halogen-Free Firefighting (summary and podcast)	Green Bay	WI
2014 Yes	Stahl, Shannon S.; University of Wisconsin- Madison	Aerobic Oxidation Methods for Pharmaceutical Synthesis (summary and podcast)	Madison	WI
2014 No	Stepan Company	STEPOSOL® MET-10U. A Bioderived, Nonionic Surfactant Solution for Solvent Replacement: Source Reduction and Inherently Lower Health Hazards in Hard Surface Cleaning and Adhesive / Paint Removal (abstract)	Northfield	IL
2014 No	Terramera, Inc.	CIRKIL Biopesticide (abstract)	Buena Park	CA

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Washing Systems LLC	Green Detergents for Industrial Laundries (abstract)	Loveland	ОН
2014 No	Wyman, Charles; University of California, Riverside	UCR Co-Solv Technology Achieves Unprecedented Yields of Fuel Precursors from Lignocellulosic Biomass (abstract)	Riverside	CA
2015 No	A S Filtration TM , LLC	Pathex®/PathShield TM Antimicrobial Filter Media for the Control of Bacteria in Stormwater and Industrial Process Waters (abstract)	Hixson	TN
2015 No	Acid-Amine Technologies, Inc. (AAT)	Using Bioethanol as A Raw Material, To Produce: 1. SAFEN: A Low Cost Nematicide And Fungicide, Based on Ethyl Formate, Which Is Generally Regarded as Safe by the FDA, and Which Biodegrades Into Two Naturally Occurring Substances, with No Lasting Detrimental Effects to Air, Soil and Water; and 2. Ethyl Formate in a Second Development as a Suitable Raw Material for Propionic Acid and Acrylate Production (abstract)	Lake	NJ
2015 Yes	Algenol	The Algenol Biofuel Process: Sustainable Production of Ethanol and Green Crude (summary and picture)	Fort Myers	FL
2015 No	Barreto, Reynaldo; Purdue University North Central	Photocatylic Oxidations of Ethers with Visible/Near UV Light and the Development of a Continuous Flow Photoreactor (abstract)	Westville	IN
2015 Yes	Chen, Eugene YX.; Colorado State University	Greener Condensation Reactions for Renewable Chemicals, Liquid Fuels, and Biodegradable Polymers (summary and picture)	Fort Collins	СО
2015 No	Eastman Chemical Company	Eastman Omnia TM Solvent – Changing the Chemistry of Clean. New, Safe, Highly Effective Solvent for Cleaning Applications (abstract)	Kingsport	TN
2015 No	Ecolab	OxyCide TM Daily Disinfectant Cleaner (abstract)	Eagan	MN
2015 No	Ecolab	Environmentally Preferable Biocide For Water Treatment in Hydraulic Fracturing (abstract)	Eagan	MN
2015 No	Green Biologics, Inc. (GBI)	The Reinvention of Biomass Based n-Butanol for the Renewable Chemicals Industry (abstract)	Gahanna	ОН

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2015 No	Honeywell International	Low Global Warming, Non-VOC, Zero-ODP Molecule for Energy Efficient Polyurethane Foam Insulation Blowing Agent, Solvents, and Heat Transfer (abstract)	Morristown	NJ
2015 Yes	Hybrid Coating Technologies/Nanotech Industries	Hybrid Non-Isocyanate Polyurethane/Green Polyurethane TM (summary and picture)	Daly City	CA
2015 Yes	LanzaTech Inc.	<u>LanzaTech Gas Fermentation Process</u> (summary and picture)	Skokie	IL
2015 No	Licht, Stuart; George Washington University	A Solar Chemical Process to End Anthropogenic Global Warming: STEP Generation of Energetic Molecules (abstract)	Washington	DC
2015 No	Light Curable Coatings	High Performance Solvent-Free Coating Technology (abstract)	Valley View	ОН
2015 No	Linde North America	Development of Vapormate as a Replacement for Methyl Bromide Fumigants (abstract)	Murray Hill	NJ
2015 No	Modular Genetics, Inc.	Greener Synthesis of Surfactants (abstract)	Cambridge	MA
2015 No	Phyllom BioProducts	grubGONE!®, beetleGONE!® and boreGONE!®, Biological Insecticides with Low Impact on Humans and the Environment Yet Effective Against Destructive Beetle Pests (abstract)	Oakland	CA
2015 No	PROSOCO, Inc.	PROSOCO R-Guard: High- Performance Phthalate-Free Air and Water Resistive Barrier Sealant and Sealant Coating System (abstract)	Lawrence	KS
2015 Yes	Renmatix	The Plantrose® Process: Supercritical Water as the Economic Enabler of Biobased Industry (summary and picture)	San Francisco	CA
2015 No	Sagamore-Adams Laboratories, LLC	PLATech, Green Chemistry Universal Adhesive-Sealing Technology (abstract)	Chicago	IL
2015 No	Siluria Technologies, Inc.	Cleaner Transportation Fuels and Commodity Chemicals from Methane (abstract)	San Francisco	CA
2015 No	Sirrus, Inc.	1, 1-Disubstituted Alkenes (abstract)	Loveland	ОН
2015 Yes	Soltex (Synthetic Oils and Lubricants of Texas)	A Novel High Efficiency Process for the Manufacture of Highly Reactive Polyisobutylene Using a Fixed Bed	Houston	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Solid State Catalyst Reactor System (summary and picture)		
2015 No	VF Corporation	VF Corporation: CHEM- IQ SM (abstract)	Greensboro	NC
2015 No	Voorhees, Kent; Colorado School of Mines	Bacteriophage-Based Bacterial Identification and Antibiotic Resistance Test (abstract)	Golden	СО
2015 No	ZAPS Technologies, Inc.	An Application of Hybrid Multispectral Analysis; Real-Time Wastewater Process Control (abstract)	Corvallis	OR
2015 No	Zhang, Yi-Heng Percival; Cell Free Bioinnovations Inc	<u>Ultra-High Energy Density Metal-Free</u> <u>Sugar Biobattery (abstract)</u>	Blacksburg	VA
2015 No	Zhang, Yi-Heng Percival; Virginia Tech	High-Yield and High-Purity Hydrogen Production from Carbohydrates via Synthetic Enzymatic Pathways (abstract)	Blacksburg	VA
2016 No	3M	Alternative to Sulfur Hexafluoride Enables up to 99% Greenhouse Gas Emission Reduction (abstract)	St. Paul	MN
2016 No	AECOM	Green Nanotechnology Product and Processes for Cleaning Up Contaminated Soil and Groundwater (abstract)	Atlanta	GA
2016 No	Aequor, Inc.	New Chemical Impedes Biofilm Formation and the Adhesion Of Foulers (abstract)	San Diego	CA
2016 No	Alliance Finishing	Plating on Plastics (abstract)	Oxnard	CA
2016 No	Biosynthetic Technologies	Estolides: A Low-Cost, High- Performance Renewable Fluid Certified for Motor Oil (abstract)	Irvine	CA
2016 No	Bristol-Myers Squibb	Discovery, Development and Implementation of New Chemical Technology toward a Novel Commercial Synthesis for the HIV- Attachment Inhibitor, BMS-663068 (abstract)	New Brunswick	NJ
2016 No	Calgon Carbon Corporation	FLUEPAC® activated carbon products for superior mercury control from flue gas and green re-use of coal combustion residuals (abstract)	Moon Twp	PA
2016 No	Calysta	Disruptive Methantropic Technology for Sustainable Food, Fuel and Products: Green Chemistry Innovation Enabling US Global Competitiveness	Menlo Park	CA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		in Low-Carbon, New Economy (abstract)		
2016 No	Catalytic Innovations, LLC	Catalytic Electrolysis for Renewable Fuel Generation from Organic Waste Water (abstract)	Adamsville	RI
2016 Yes	CB&I Albemarle	AlkyClean® Technology: An Inherently Safer Technology for the Production of Gasoline Alkylate (summary)		TX
2016 Yes	Chirik, Paul J., Princeton University	Catalysis with Earth Abundant Transition Metals (summary)	Princeton	NJ
2016 No	Clean Chemistry, Inc.	PeroxyMAX TM Oxidant Technology for Pollution Prevention in Industrial Sectors (abstract)	Boulder	СО
2016 No	Collaborative Aggregates, LLC	Delta S TM : An Environmentally Benign and Worker Safe Asphalt Rejuvenator (abstract)	Wilmington	MA
2016 No	Compact Membrane Systems, Inc.	Membrane Dehydration for Solvent Recovery and Reuse (abstract)	Newport	DE
2016 No	Covestro LLC	<u>Dream Production – CO₂ as a new</u> <u>building block for high-tech plastics</u> (abstract)	Pittsburgh	PA
2016 Yes	Dow AgroSciences LLC	Instinct® Technology – Making Nitrogen Fertilizers Work More Effectively for Farmers and the Planet (summary)	Indianapolis	IN
2016 No	Dow Chemical Company, The	Dow Polymeric Flame Retardant (abstract)	Midland	MI
2016 No	Dow Chemical Company, The	SOLDERON TM BP Lead-free Solder Plating Chemistry (abstract)	Marlborough	MA
2016 No	Dow Microbial Control	<u>KathonTM 7 Tl Antimicrobial for Water</u> <u>Treatment Applications (abstract)</u>	Collegeville	PA
2016 No	DuPont	Creation, Integration, and Engineering of the World's Largest Cellulosic Ethanol BioRefinery Production Platform (abstract)	Wilmington	DE
2016 No	Elinor Specialty Coatings; Bierwagen, Gordon; North Dakota State University; Akzo Nobel Aerospace Coatings	Mg rich primer for Chrome free protection of Aluminum and its alloys (abstract)	Fargo	ND
2016 No	Floral Soil LLC	Floral Soil: A Green Chemistry Alternative to Phenol Formaldehyde Foams for Floral & Horticulture Industries (abstract)	Everett	WA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Garg, Neil; University of California, Los Angeles	Catalytic Cross-Couplings Using a Sustainable Metal and Green Solvents (abstract)	Los Angeles	CA
2016 No	H-O-H Water Technology, Inc.	Cooling Tower Water Conservation and Chemical Treatment Elimination (abstract)	Palatine	IL
2016 No	Huang, Yu; University of California, Los Angeles	Surface Engineered High-performance Catalysts for Fuel Cell Applications (abstract)	Los Angeles	CA
2016 No	Instrumental Polymer Technologies, LLC	Evolution Polymerization To Produce Sustainable Polycarbonate Dendrimers (abstract)	Westlake Village	CA
2016 No	International Flavors & Fragrances Inc. (IFF)	A Greener Process for the Fragrance Veridian and Development/Implementation of IFF's Green Chemistry Tool (abstract)	Union Beach	NJ
2016 No	ISCA Technologies, Inc.	SPLAT® VERB: An Insecticide-Free, Green Repellent for Bark Beetle Pests of North American Forestry (abstract)	Riverside	CA
2016 No	Kiverdi	Carbon Engineering Platform (abstract)	Hayward	CA
2016 No	Lygos, Inc.	Integrated Production of Sustainable Biobased Malonic Acid for Significant Source Pollution Reduction, Cost, and Performance Advantages (abstract)	Emeryville	CA
2016 No	Marrone Bio Innovations	GRANDEVO® advanced bioinsecticides (abstract)	Davis	CA
2016 No	Marrone Bio Innovations	ZEQUANOX® (abstract)	Davis	CA
2016 No	Meredian Holdings Group (Meredian, Inc. and DaniMer Scientific)	Degradable Polymers for Fracking Applications (abstract)	Bainbridge	GA
2016 No	Midwest Refrigerants, LLC a Missouri Limited Liability Company	The Recovery of Organic Halides from Waste Streams by the Chemical Reaction of Hydrogen and Carbon Dioxide (abstract)	Shoreline	WA
2016 No	Miller, Stephen; U of Florida; U.S. Bioplastics, LLC	Replacing Packaging Plastics with Sustainable Bioplastics from Megacrop Waste (abstract)	Gainesville	FL
2016 Yes	Newlight Technologies, LLC	AirCarbon: Greenhouse Gas Transformed into High-Performance Thermoplastic (summary)	Irvine	CA
2016 No	Niwayama, Satomi; Texas Tech	Highly efficient and practical monohydrolysis of symmetric diesters (abstract)	Lubbock	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Novvi, LLC (a joint venture of Amyris, Inc. and Cosan S.A. Industria e Comercio)	Renewable Oils for High Performance Lubricants (abstract)	Emeryville	CA
2016 No	Ohio Soybean Council	Bio-Derived Oligomer Technology to Replace Bis Phenol-A (BPA)-Based Thermoset Coatings: A Practical Solution for BPA-Free Metal Can Coatings for Beer, Beverage, and Food Containers (abstract)	Worthington	ОН
2016 No	OMNOVA Solutions Inc.	SunCryl HP 114, an Environmentally Friendly Release Coat (abstract)	Akron	ОН
2016 No	Pfizer	A Green, Energy Efficient, Chemoenzymatic Process to Manufacture Pregabalin (abstract)	San Diego	CA
2016 No	Procter & Gamble Company, and DuPont Company	Cold-Water Enzyme: Reducing the Environmental Footprint of Residential Laundry through Low Temperature Cleaning (abstract)	Palo Alto	CA
2016 No	Rennovia Inc.	Breakthrough Catalyst Technology Enables Cost Competitive Drop-in Bio- Based Nylons and Polyurethanes (abstract)	Santa Clara	CA
2016 No	Resinate Materials Group, Inc.	Converting Landfill Wastes to Multi- Functional Green Polyols for Coating Applications (abstract)	Plymouth	MI
2016 No	Rivertop Renewables	Rivertop Renewables - Sugar Oxidation Process (abstract)	Missoula	MT
2016 No	Sabatini, Jesse; US Army Research Laboratory (ARL)	Environmentally Friendly Colored Pyrotechnic Illuminants (abstract)	Aberdeen Proving Ground	MD
2016 No	SiGNa Chemistry, Inc.; Dixie Chemical Company, Inc.	Input and Waste Associated with the Isomerization of Linear Alpha Olefins (abstract)	New York	NY
2016 No	Sun Pharmaceuticals, Inc.	Environmental protection reagents from MSW: one-step quantitative resourcing municipal solid waste (abstract)	San Diego	CA
2016 No	UOP LLC, A Honeywell Company	A Feedstock Flexible Process to produce Diesel and/or Jet Fuel from Renewable Resources (abstract)	Des Plaines	IL
2016 Yes	Verdezyne	Renewable Nylon through Commercialization of BIOLON TM DDDA (summary)	Carlsbad	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Vestaron Corporation	SPEAR TM Insecticide: First Member of a New Class of Biopesticides which shows Efficacy comparable to Synthetic Insecticides (abstract)	Kalamazoo	MI
2016 No	Virox Technologies Inc.	Accel 5 RTU, an Accelerated Hydrogen Peroxide® (AHP®) based cleaner-disinfectant that provides a sustainable and safer choice for infection prevention and control (abstract)	Oakville	WI
2016 No	Vitaworks, LLC	Atom-Efficient Process for Producing Taurine (abstract)	North Brunswick	NJ

Green Chemistry Program Nomination Table

This table contains information on each unique technology nominated for the Presidential Green Chemistry Challenge from 1996 through 2016. Although EPA has received 1,714 nominations during this period, only 871 unique technologies are represented here because sponsors may nominate a technology more than once.

The columns are:

Year: The year of the most recent nomination for this technology.

Winner: The status of each nomination as an award-winning technology or a nominee. Nomination Sponsor: The sponsor or sponsors of the nomination; generally, the name of the company, academic researcher (and institution), or other organization that developed the technology.

Nominated Technology Title: The title for the nominated technology as given by the sponsor. Each title is followed by a link to the associated summary page (for award-winning technologies) or abstract (for all other technologies).

City: The city given in the nomination; this is usually the city of the headquarters for a company or primary location of an academic institution, but may be the city of a plant or research facility. In a few cases, the city is that of a consultant who prepared the nomination.

State (St.): The state given in the nomination; as for the city of nomination, this may not represent the headquarters for a company or the primary location of an academic institution.

Also, download similar information about all nominated technologies as either:

- a <u>Presidential Green Chemistry Challenge Nominations (XLS)</u>(2 pp, 3 MB) (<u>Download Excel Viewer</u>) <u>Exit</u>
- 2. a <u>Presidential Green Chemistry Challenge Nominations (CSV)</u>(1 pg, 2 MB)

Nomination Table

Sort alphabetically or by year, use the search function, or both together.

To search, enter at least three characters in the box:

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1996 No	Advanced Micro Devices (AMD)	The Emission Quantification Model (abstract)	Austin	TX
1996 No	Bayer Corporation	Aldimine-Isocyanate Chemistry: a Foundation for Environmentally- Friendly High Solids Coatings (abstract)	Pittsburgh	PA
1996 Yes	Donlar Corporation	Production and Use of Thermal Polyaspartic Acid (summary)	Bedford Park	IL
1996 Yes	Dow Chemical Company, The	100 Percent Carbon Dioxide as a Blowing Agent for the Polystyrene Foam Sheet Packaging Market (summary)	Midland	MI
1996 No	Eastman Chemical Company	Water-Dispersible Sulfopolyester for Reduced VOC Consumer Products (abstract)	Kingsport	TN
1996 No	GE Plastics (General Electric Corporation)	New Catalyst for Producing ULTEM® Thermoplastic Resin (abstract)	Mt. Vernon	IN
1996 Yes	Holtzapple, Mark; Texas A&M University	Conversion of Waste Biomass to Animal Feed, Chemicals, and Fuels (summary)	College Station	TX
1996 No	Hudlicky, Tomas; University of Florida	Enzyme-Assisted Conversion of Aromatic Substances to Value-Added End Products. Exploration of Potential Routes to Biodegradable Materials and New Pharmaceuticals (abstract)	Gainesville	FL
1996 No	Merck & Co., Inc.	Waste Minimization in the Manufacture of an Antibiotic Produced by Chemical Synthesis (abstract)	Whitehouse Station	NJ
1996 Yes	Monsanto Company	Catalytic Dehydrogenation of Diethanolamine (summary)	St. Louis	МО
1996 No	Recombinant BioCatalysis, Inc. (RBI)	Development of a Biodiversity Search and Enzyme Optimization Technology (abstract)	Sharon Hill	PA
1996 Yes	Rohm and Haas Company	Designing an Environmentally Safe Marine Antifoulant (summary)	Spring House	PA
1996 No	Stanson Corporation	National Conversion to Low Sudsing Hand Dish Detergents for Industrial,	S. Kearny	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		<u>Institutional, and Especially Consumer</u> <u>Application (abstract)</u>		
1996 No	Taylor, Larry T.; Virginia Tech and Virginia Tech Intellectual Properties	A Nontoxic Liquid Metal Composition for Use as a Mercury Substitute (abstract)	Blacksburg	VA
1996 No	Tremco, a BF Goodrich Company	<u>Automotive Windshield Adhesives</u> (abstract)	Akron	ОН
1996 No	U.S. Department of Energy, Los Alamos National Laboratory	A Microwave Oven Dissolution Procedure for a Ten Gram Sample of Soil Requiring Radiochemical Analysis (abstract)	Los Alamos	NM
1996 No	U.S. Department of Energy, Los Alamos National Laboratory; Phillips, Jonathan; Pennsylvania State University	Two-Stage Catalyst for NO _x Reduction, CO Oxidation, and Hydrocarbon Combustion in Oxygen Containing Exhaust Mixtures (abstract)	Washington	DC
1996 No	U.S. Department of Energy, Office of Industrial Technologies Programs	The Alternative Feedstocks and Biological and Chemical Technologies Research Programs (abstract)	Washington	DC
1997 Yes	Albright & Wilson Americas	THPS Biocides: A New Class of Antimicrobial Chemistry (summary)	Ashland	VA
1997 No	Alliance for Environmental Technology (AET)	The Use of Chlorine Oxide, the Foundation of Elemental Chlorine-Free Bleaching for Pulp and Paper, as a Pollution Prevention Process (abstract)	Washington	DC
1997 No	Altus Biologics Inc.	Cross-Linked Enzyme Crystals (CLECs) as Robust and Broadly Applicable Industrial Catalysts (abstract)	Cambridge	MA
1997 No	American Chemical Corporation	Utilization of High Performance, Environmentally Compliant Chemicals: GREEN LINE Adhesive, Sealant, and Coating Technologies (abstract)	Washington	DC
1997 No	Anderson, Marc A.; University of Wisconsin- Madison	Green Technology for the 21st Century: Microporous Ceramics (abstract)	Madison	WI
1997 No	Benchmark Products, Inc.	Development of a Nickel Brightener Solution (abstract)	Indianapolis	IN
1997 Yes	BHC Company (Hoechst Celanese)	BHC Company Ibuprofen Process (summary)	Dallas	TX
1997 No	Circuit Research Corporation	A Nontoxic, Nonflammable, Aqueous-Based Cleaner/Degreaser and Associated Parts Washing Systems	Delano	MN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Commonly Employed in the Automotive Repair Industry (abstract)		
1997 Yes	DeSimone, Joseph M.; University of North Carolina at Chapel Hill (UNC) and North Carolina State University (NCSU)	Design and Application of Surfactants for Carbon Dioxide (summary)	Chapel Hill	NC
1997 No	Dow Chemical Company, The	INVERT TM Solvents in Aircraft Paint Stripping (abstract)	Midland	MI
1997 No	Dumesic, James A.; University of Wisconsin- Madison	Rational Design of Catalytic Reactions for Pollution Prevention (abstract)	Madison	WI
1997 No	DuPont Company	The DUCARE 'Zero Effluent' Recycle Chemistry System (abstract)	Wilmington	DE
1997 No	Eastman Chemical Company	Biodegradable Copolyester (abstract)	Kingsport	TN
1997 No	Eastman Chemical Company	Biofiltration Technology (abstract)	Kingsport	TN
1997 No	Eastman Chemical Company	Water-Dispersible Hot-Melt Adhesive Raw Material (abstract)	Kingsport	TN
1997 No	Gross, Richard A.; University of Massachusetts Lowell	Biotechnological Routes to 'Tailored' Polymeric Products of Environmental and Industrial Importance (abstract)	Lowell	MA
1997 No	Hatton, T. Alan; Massachusetts Institute of Technology	Derivatized and Polymeric Solvents for Minimizing Pollution During the Synthesis of Pharmaceuticals (abstract)	Cambridge	MA
1997 No	Henkel Corporation	Alkyl Polyglycoside Surfactants (abstract)	Ambler	PA
1997 No	Hughes Environmental Systems, Inc.	DryWash TM Carbon Dioxide Dry Cleaning Technology (abstract)	El Segundo	CA
1997 No	IBM-Austin	Elimination of Ozone-Depleting Chemicals in the Printed Wire Board and Electronic Assembly and Test Processes (abstract)	Austin	TX
1997 No	IBM-Austin	Innovative Techniques for Chemical and Waste Reductions in the Printed Wire Board Circuitize Process (abstract)	Austin	TX
1997 Yes	Imation TM Corporation	DryView TM Imaging Systems (summary)	Oakdale	MN
1997 No	King, Charles M.; University of Georgia	Biomimetic Transition Metal Complexes for Homogeneous Catalytic Reductive Dechlorination of the	Athens	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		PCBs/One-Step Extraction- Detoxification in Subcritical and Supercritical Fluids (abstract)		
1997 No	Klenzoid, Inc.	Zero Discharge System For Cooling Towers (abstract)	Conshohocken	PA
1997 Yes	Legacy Systems, Inc.	Coldstrip TM , A Revolutionary Organic Removal and Wet Cleaning Technology (summary)	Fremont	CA
1997 No	Materials Technology Limited	SuperC TM , The Use of Supercritical Carbon Dioxide (abstract)	Reno	NV
1997 No	Molten Metal Technology, Inc.	Catalytic Extraction Processing (CEP) (abstract)	Waltham	MA
1997 No	Monsanto Company	Roundup Ready TM Technology (abstract)	St. Louis	МО
1997 No	Sandoz Pharmaceutical Corporation	A New Process for the Manufacture of Pharmaceuticals (abstract)	East Hanover	NJ
1997 No	Shaw, Henry; New Jersey Institute of Technology (NJIT)	The Replacement of Hazardous Organic Solvents with Water in the Manufacture of Chemicals and Pharmaceuticals (abstract)	Newark	NJ
1997 No	Technic, Inc.	Noncyanide Silver Electroplating (abstract)	Providence	RI
1997 No	Texaco, Inc.	CleanSystem ³ Gasoline (abstract)	White Plains	NY
1997 No	U.S. Department of Energy, Los Alamos National Laboratory	Application of Green Chemistry Principles to Eliminate Air Pollution From the Mexican Brickmaking Microindustry (abstract)	Los Alamos	CA
1997 No	U.S. Department of Energy, Los Alamos National Laboratory	Solvent Replacement and Improved Selectivity in Asymmetric Catalysis Using Supercritical Carbon Dioxide (abstract)	Los Alamos	NM
1997 No	U.S. Department of Energy, Pacific Northwest National Laboratory	DOE Methods for Evaluating Environmental and Waste Management Samples (abstract)	Richland	WA
1998 No	AlliedSignal Federal Manufacturing and Technologies	Synergy CCS TM Precision Cleaning Solvent: A Government/Industry Solution to a Complex Environmental Problem (abstract)	Kansas City	МО
1998 No	Beckman, Eric J.; University of Pittsburgh	Design of CO ₂ -Soluble Ligands for Affinity Extraction Using CO ₂ (abstract)	Pittsburgh	PA
1998 No	CTS Corporation Resistor Networks	No-Clean Soldering (abstract)	Berne	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	Doherty, Michael F.; Malone, Michael F.; University of Massachusetts, Amherst	Reactive Distillation Technology to Reduce Waste at the Source (abstract)	Amherst	MA
1998 Yes	Draths, Karen M. and Frost, John W.; Michigan State University	Use of Microbes as Environmentally Benign Synthetic Catalysts (summary)	East Lansing	MI
1998 No	DuPont Company	NAFION Membrane Technology (abstract)	Wilmington	DE
1998 No	DuPont Company	The INFINITY Process (abstract)	Wilmington	DE
1998 No	DuPont Polyester	DuPont Petretec(SM) Polyester Regeneration Technology - Making Polyester Evergreen (abstract)	Wilmington	DE
1998 No	E. I. DuPont de Nemours & Co., Inc.	Zero Effluent Photographic Processing in the Printing Industry (abstract)	Wilmington	DE
1998 No	Eastman Kodak Company	Polycarbonate/Polydimethylsiloxane Copolymers for Thermal Print Media (abstract)	Rochester	NY
1998 No	Eastman Kodak Company	Replacement of Methanol Solutions with Aqueous Dispersions in Photographic Coatings (abstract)	Rochester	NY
1998 No	Eli Lilly and Company	Waste Reduction During Development of a New Process for Manufacture of Pharmaceutical Products (abstract)	Indianapolis	IN
1998 Yes	Flexsys America L.P.	Elimination of Chlorine in the Synthesis of 4-Aminodiphenylamine: A New Process That Utilizes Nucleophilic Aromatic Substitution for Hydrogen (summary)	Akron	ОН
1998 No	Govind, Rakesh; University of Cincinnati	Bioconversion of Carbon Dioxide into Organic Feedstocks (abstract)	Cincinnati	ОН
1998 No	Hendrickson, James B.; Brandeis University	<u>The SYNGEN Program for Generation</u> of Alternative Syntheses (abstract)	Waltham	MA
1998 No	Lockheed Martin Tactical Aircraft Systems	Development and Implementation of Low Vapor Pressure Cleaning Solvent Blends (abstract)	Fort Worth	TX
1998 No	Lockheed Martin Tactical Aircraft Systems (LMTAS)	Implementation and Verification of Aqueous Alkaline Cleaners (abstract)	Fort Worth	TX
1998 No	MEMC Electronic Materials, Inc.	Elimination of Ozone-Depleting Chemicals Through the Use of a Water Soluble Adhesive "Green Wax" (abstract)	St. Peters	МО

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	Mobil Technology Company	Production of Cumene with Zeolite CatalystThe Mobil/Badger Cumene Process (abstract)	Paulsboro	NJ
1998 No	NICCA U.S.A., Inc.	Heavy Metals Free, Non-Formaldehyde Fixing Agent for Direct and Fiber Reactive Dyes (abstract)	Fountain Inn	SC
1998 No	Nortel Technology	Molyphos: A Chromate-Free Alternative for Corrosion Protection of Metal Parts (abstract)	Raleigh	NC
1998 No	Pharmacia and Upjohn, Inc.	Environmental Improvements from Redesigning the Commercial Manufacture of Progesterone (abstract)	Kalamazoo	MI
1998 No	Phillips Petroleum Company	Reduced Volatility Alkylation Process (abstract)	Bartlesville	OK
1998 No	Praxair, Inc.	Liquid Oxidation Reactor (LOR) (abstract)	Danbury	CT
1998 Yes	Pyrocool Technologies, Inc.	Technology for the Third Millennium: The Development and Commercial Introduction of an Environmentally Responsible Fire Extinguishment and Cooling Agent (summary)	Lynchburg	VA
1998 No	Rochester Midland Corporation	Core Line of Cleaning Products (abstract)	Rochester	NY
1998 Yes	Rohm and Haas Company	Invention and Commercialization of a New Chemical Family of Insecticides Exemplified by CONFIRM TM Selective Caterpillar Control Agent and the Related Selective Insect Control Agents MACH 2 TM and INTREPID TM (summary)	Philadelphia	PA
1998 No	Rybarczyk, James P.; Ball State University	Premature Degradation of Coolant Oil in the Machining of Magnesium in the Automobile Industry (abstract)	Muncie	IN
1998 No	Stepan Company	Stepanfoam Water-Blown Polyurethane Foam HCFC-Free, Environmentally Friendly, Rigid Polyurethane Foam (abstract)	Northfield	IL
1998 Yes	Trost, Barry M.; Stanford University	The Development of the Concept of Atom Economy (summary)	Stanford	CA
1998 No	U.S. Department of Agriculture, Agricultural Research Service, Northwest Irrigation and Soils Research Laboratory	Polyacrylamide Technology Reduces Soil Erosion (abstract)	Kimberly	ID

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	U.S. Department of Defense, Office of Munitions; U.S. Department of Energy, Weapons Supported Research; Lawrence Livermore National Laboratory	Environmentally-Driven Preparation of Insensitive Energetic Materials (abstract)	Livermore	CA
1998 Yes	U.S. Department of Energy, Argonne National Laboratory	Novel Membrane-Based Process for Producing Lactate Esters – Nontoxic Replacements for Halogenated and Toxic Solvents (summary)	Argonne	IL
1998 No	U.S. Department of the Navy, Office of Naval Research; U.S. Department of the Navy, Naval Surface Warfare Center; DeSimone, Joseph, University of North Carolina; Aerojet Propulsion	Use of Carbon Dioxide as an Alternative Green Solvent for the Synthesis of Energetic Thermoplastic Elastomers (abstract)	Arlingtion	VA
1998 No	U.S. Department of the Navy, Office of Naval Research; U.S. Department of the Navy, Naval Surface Warfare Center; U.S. Army Armament Research, Development and Engineering Center; U.S. Department of Energy, Los Alamos National Laboratory; Aerojet	Waste Reduction in the Production of an Energetic Material by Development of an Alternative Synthesis (abstract)	Arlington	VA
1998 No	Union Camp Corporation	C-FREE TM Pulp Ozone Bleaching Project (abstract)	Franklin	VA
1999 No	ABB Power T&D Company Inc.	Fully Biodegradable Vegetable Oil- Based Electrical Insulating Fluid (BIOTEMP TM) (abstract)	Raleigh	NC
1999 No	Akzo Nobel Business Unit Base Chemicals	A Durable Hydrodechlorination Catalyst for Selective Conversion of CCl4 to CHCl3 (abstract)	Dobbs Ferry	NY
1999 No	Akzo Nobel Sub Business Unit Phosphorus Chemicals	Next Generation Fire-Resistant Fluids (abstract)	Dobbs Ferry	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	American Society for Testing & Materials (ASTM)	Analysis of Liquid Hazardous Waste for Heavy Metals by Energy- Dispersive X-ray Fluorescence (EDXRF) Spectrometry (abstract)	West Conshohocken	PA
1999 No	Antia, Jimmy E.; Govind, Rakesh; University of Cincinnati	Novel In-Situ Zeolite Coatings in Monoliths (abstract)	Cincinnati	ОН
1999 No	Beckman, Eric J.; University of Pittsburgh	Metal Extraction and Recovery Using Carbon Dioxide (abstract)	Pittsburgh	PA
1999 Yes	Biofine, Incorporated	Conversion of Low-Cost Biomass Wastes to Levulinic Acid and Derivatives (summary)	Waltham	MA
1999 Yes	Collins, Terry; Carnegie Mellon University	TAM TM Oxidant Activators: General Activation of Hydrogen Peroxide for Green Oxidation Technologies (summary)	Pittsburgh	PA
1999 No	Cussler, E.L.; University of Minnesota	Pollution Preventing Lithographic Inks (abstract)	Minneapolis	MN
1999 Yes	Dow AgroSciences LLC	Spinosad: A New Natural Product for Insect Control (summary)	Indianapolis	IN
1999 No	Dow Corning Corporation	New Technology Converts Waste to Valuable Intermediates (abstract)	Carrollton	KY
1999 No	Dow Corning Corporation	Volatile Methyl Siloxanes: Environmentally Sound Solvent Systems (abstract)	Midland	MI
1999 No	DuPont Company	Reduction of Carbon Tetrachloride Emissions at the Source by the Development of a New Catalyst (abstract)	Wilmington	DE
1999 No	Geon Company, The	Increased Utilization of Raw Materials in the Production of Vinyl Chloride Monomer (abstract)	Avon Lake	ОН
1999 No	Harrell, J.W.; Lane, Allan M.; Jefcoat, I.A.; Nikles, David E.; The University of Alabama	Waterborne Coating Formulations for Video Tape Manufacture (abstract)	Tuscaloosa	AL
1999 No	Hauser, Inc.	Paclitaxel Process Improvements (abstract)	Boulder	СО
1999 No	IBM Corporation, T.J. Watson Research Center	Green Card: A Biopolymer-Based and Environmentally Conscious Printed Wiring Board Technology (abstract)	Yorktown Heights	NY
1999 No	Imation Corporation	Imation No Process Plates (abstract)	Oakdale	MN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	IMC-Agrico Company	AGROTAIN® N-(n-butyl)Thiophosphoric Triamide (abstract)	Bannockburn	IL
1999 No	International Metalizing Corporation	Non Toxic Antifouling (abstract)	Pennsauken	NJ
1999 No	Khalili, Nasrin R.; Arastoopour, Hamid; Walhof, Laura; Illinois Institute of Technology	A Novel Waste Minimization Approach: Production of Carbon-Based Catalyst or Sorbent from Biosolids (abstract)	Chicago	IL
1999 No	Ladisch, Michael R.; Purdue University	Biobased Adsorbents for Desiccant Coolers (abstract)	West Lafayette	IN
1999 Yes	Lilly Research Laboratories	Practical Application of a Biocatalyst in Pharmaceutical Manufacturing (summary)	Indianapolis	IN
1999 No	Lin, Chhiu-Tsu; Northern Illinois University	Chrome-Free Single-Step In-Situ Phosphatizing Coatings (abstract)	DeKalb	IL
1999 No	M.A. Hanna Color - Technical Center	Reducing VOC Emissions by Eliminating Painting and Labeling Operations with a New Color Laser Marking System for Plastic Parts (abstract)	Suwanee	GA
1999 No	Mallinckrodt Inc.	The Removal of Oxides of Nitrogen by In Situ Addition of Hydrogen Peroxide to a Metal Dissolving Process (abstract)	Chesterfield	MI
1999 No	Mathews, Alexander P.; Kansas State University	Waste Biomass Utilization in the Production of a Biodegradable Road Deicer (abstract)	Manhattan	KS
1999 No	Monsanto Company	Metabolic Engineering of Crops for Commercial Production of Biodegradable Plastics (abstract)	St. Louis	МО
1999 No	Nalco Chemical Company	Nalco Fuel Tech NO _x OUT® Process (abstract)	Naperville	IL
1999 No	Nalco Chemical Company	Nalco LAZON Technology (abstract)	Naperville	IL
1999 No	Nalco Chemical Company	Nalco NALMET® Heavy Metal Removal Technology (abstract)	Naperville	IL
1999 Yes	Nalco Chemical Company	The Development and Commercialization of ULTIMER®: The First of a New Family of Water- Soluble Polymer Dispersions (summary)	Naperville	IL
1999 No	Nassaralla, Claudia Lage; Michigan Technological University	Waste Reduction and Recycling of Magnesite-Chrome Refractory into the Steelmaking Process (abstract)	Houghton	MI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Novon International	Natural Recycling of Plastics through Chemical and Biological Degradation (abstract)	Tonawanda	NY
1999 No	Paquette, Leo A.; The Ohio State University	Environmental Advantages Offered by Indium-Promoted Carbon-Carbon Bond-Forming Reactions in Water (abstract)	Columbus	ОН
1999 No	Peretti, Steven W.; North Carolina State University	Biosynthetic Production of p- Hydroxybenzoate Improves Regiospecificity and Minimizes Byproduct Generation (abstract)	Raleigh	NC
1999 No	Polaroid Corporation; Warner, John C.; University of Massachusetts Boston	Environmentally Benign Supramolecular Assemblies of Hydroquinones in Polaroid Instant Photography (abstract)	Waltham	MA
1999 No	Radiance Services Company	The Radiance Process: A Quantum Leap in Green Chemistry (abstract)	Bethesda	MD
1999 No	Raghavan, Dharmaraj; Howard University	Design of Rubberized Concrete from Recycled Rubber Tires (abstract)	Washington	DC
1999 No	Raghavan, Dharmaraj; Howard University	Novel Applications of Polymer Composite from Renewable Materials (abstract)	Washington	DC
1999 No	Richard H. Fish, Lawrence Berkeley National Laboratory, University of California	Fluorous Biphasic Catalysis: A New Paradigm for the Separation of Homogeneous Catalysts from Their Reaction Substrates and Products, as Demonstrated in Alkane and Alkene Oxidation Chemistry (abstract)	Berkeley	CA
1999 No	Rogers, Robin D.; University of Alabama	Green Separation Science and Technology: Using Environmentally Benign Polymers to Replace VOCs in Industrial Scale Liquid/Liquid or Chromatographic Separations (abstract)	Tuscaloosa	AL
1999 No	Rowe, H. Alan; Norfolk State University	New Reducing Sugar Assay (abstract)	Norfolk	VA
1999 No	SaLUT Inc.	<u>Chemically Modified Crumb Rubber</u> <u>Asphalt (abstract)</u>	McLean	VA
1999 No	Sequa Chemicals, Inc.	Starch Graft Polymers as Phenolic Resin Extenders (abstract)	Chester	SC
1999 No	Singh, Mono M.; Szafran, Zvi; Pike, Ronald M.; Merrimack College	National Microscale Chemistry Center: The Leader in Worldwide Implementation of Microscale Technology (abstract)	North Andover	MA
1999 No	Solutia Inc.	Greenhouse Gases: From Waste to Product (abstract)	St. Louis	MO

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Solvent Kleene Inc.	Non-Hazardous Degreaser that Degreases as Efficiently as Trichloroethane and Outperforms Aqueous Products (abstract)	Peabody	MA
1999 No	Stepan Company	Stepan Company PA Lites Polyester Polyol (abstract)	Northfield	IL
1999 No	Stewart, Jon D.; University of Florida	Engineered Baker's Yeast as a Means to Incorporate Biocatalysis Early in Process Design: Application to the Asymmetric Baeyer-Villiger Oxidation (abstract)	Gainesville	FL
1999 No	Subramaniam, Bala; University of Kansas	A Novel Solid-Acid Catalyzed 1- Butene/Isobutane Alkylation Process (abstract)	Lawrence	KS
1999 No	Supratech Systems Inc.	Water Washable Flexo Photopolymer Plate "Flexceed" and Washout System (abstract)	Charlotte	NC
1999 No	Synovec, Robert E.; University of Washington	Novel Chemical Analysis Technologies by Water Liquid Chromatography, Raman Spectroscopy, and High Speed Gas Chromatography (abstract)	Seattle	WA
1999 No	Synthon Corporation	Development and Commercialization of High-Value Chemical Intermediates From Starch and Lactose. (abstract)	Lansing	MI
1999 No	Tektronix, Inc.	Designing Safer Chemicals: Spitfire Ink (abstract)	Wilsonville	OR
1999 No	Thompson, Stephen; Colorado State University	Small Scale Chemistry: Pollution Prevention in Inorganic Chemistry Instruction Program (abstract)	Fort Collins	СО
1999 No	U.S. Army, U.S. Army Armament Research, Development, & Engineering Center	Use of Solid Catalysts in Pollution Prevention in the Nitration of Aromatic Compounds (abstract)	Picatinny Arsenal	NJ
1999 No	U.S. Department of Energy, Albany Research Center	Chloride Free Processing of Aluminum Scrap (abstract)	Albany	OR
1999 No	U.S. Department of Energy, Pacific Northwest National Laboratory	Biocatalytic and Biomimetic Process for the Synthesis of Nitroaromatic Intermediates and Destruction of Nitrocompounds, Including Explosives (abstract)	Richland	WA
1999 No	U.S. Department of the Treasury, Bureau of Engraving and Printing	ISOMET: Development of an Alternative Solvent (abstract)	Washington	DC

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Union Carbide Corporation	Splittable Surfactants (abstract)	Danbury	CT
1999 No	United States Postal Service	Environmentally Benign Pressure Sensitive Adhesive Program (abstract)	Washington	DC
1999 No	Varma, Rajender S.; Sam Houston State University	Solvent-Free Chemical Synthesis (abstract)	Huntsville	TX
1999 No	Viasystems Technology Corporation	Solder Waste Reduction Environmental Project (abstract)	Richmond	VA
1999 No	Washington State Department of Ecology	Washington State Pollution Prevention, Health, and Safety Initiative in Academic Chemistry Laboratories (abstract)	Spokane	WA
1999 No	Weimer, Alan W.; University of Colorado	Vibrating Fluidized Bed Combustion Nitridation Processing Using Concentrated Solar Energy (abstract)	Boulder	СО
1999 No	Zyvax Incorporated	The Zyvax "Watershield" Mold Release (abstract)	Boca Raton	FL
2000 No	3M Center	<u>Hydrofluoroethers (HFEs)—The Right</u> <u>Balance of Properties (abstract)</u>	St. Paul	MN
2000 No	Albright & Wilson Americas, Inc.	A New Environmentally Friendly Corrosion Inhibitor (abstract)	Glen Allen	VA
2000 No	AMSOIL Incorporated	Waste Oil Source Reduction Through Extended Oil Service Life (abstract)	Superior	WI
2000 No	Arkenol Holdings, L.L.C.	Sugars from Lignocellulosic Materials for the Production of Bio-Based Fuels and Chemicals (abstract)	Mission Viejo	CA
2000 No	BAT Technologies Inc.	Primer for Anti-Fouling Paint (abstract)	New Rochelle	NY
2000 Yes	Bayer Corporation; Bayer AG (Germany)	Two-Component Waterborne Polyurethane Coatings (summary)	Pittsburgh	PA
2000 No	Beckman, Eric J.; University of Pittsburgh	Catalysts for the Copolymerization of Carbon Dioxide and Cyclic Ethers (abstract)	Pittsburgh	PA
2000 No	Bergbreiter, David E.; Texas A&M University	The Use of Soluble Polymers to Recover Catalysts and to Control Catalytic Reactions (abstract)	College Station	TX
2000 No	BetzDearborn, Inc.	Designing an Environmentally Friendly Copper Corrosion Inhibitor for Cooling Systems (abstract)		PA
2000 No	BIOCORP, Inc.	Biodegradable Thermoplastic Material (Mater-Bi TM) (abstract)	Redondo Beach	CA
2000 No	Brennecke, Joan F.; University of Notre Dame; Beckman, Eric J.; University of Pittsburgh	Ionic Liquid/CO ₂ Biphasic Systems: New Media for Green Processing (abstract)	Notre Dame	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	Center for Forest Products Research, Inc.	Polymers and Plastics from Lignin Biomass (abstract)	Albuquerque	NM
2000 No	CerOx Corporation	The CerOx Process: A Non-Thermal Alternative for Hazardous Waste Destruction (abstract)	Sunnyvale	CA
2000 No	Chemecol, LLC	PVC Alternative Technology (abstract)	Cornelius	NC
2000 No	Ciba Specialty Chemicals Corporation	Ashless Friction Modifier/Antioxidant for Lubricants (abstract)	Tarrytown	NY
2000 No	Ciba Specialty Chemicals Corporation	New Organic Corrosion Inhibitors Help Replace Toxic Heavy Metals and Reduce Solvent Emissions (abstract)	Tarrytown	NY
2000 Yes	Dow AgroSciences LLC	Sentricon TM Termite Colony Elimination System, A New Paradigm for Termite Control (summary)	Indianapolis	IN
2000 No	Eastman Kodak Company	Minimizing Environmental Emissions by Using Different Solvents in Manufacturing Processes (abstract)	Rochester	NY
2000 No	Eka Chemicals, Inc.	SVP-Pure TM ClO ₂ Process Technology (abstract)	Marietta	GA
2000 No	Environmental Technology and Education Center, Inc. (ETEC)	High Energy Efficiency, Environmentally Friendly Refrigerants (abstract)	Albuquerque	NM
2000 No	Freeman, Harold S.; North Carolina State University	Synthetic Dyes Based on Toxicological Considerations (abstract)	Raleigh	NC
2000 No	H and H Associates, Inc.	DUAL-ICE®: A Non-Toxic, Non- Caustic Instant Cold Compress (abstract)	Bena	VA
2000 No	Ho, Nancy W. Y.; Purdue University	Genetic Engineering of Saccharomyces Yeasts for Effective Production of Ethanol and Other Green Chemicals from Renewable Cellulosic Biomass (abstract)	West Lafayette	IN
2000 No	IBM Research Division, Almaden Research Center	The Chemical Kinetics Simulator Program (abstract)	San Jose	CA
2000 No	IonEdge Corporation	Zero-Waste Dry Plating of Cadmium (abstract)	Fort Collins	CO
2000 No	KM Limited Inc.	The PIX Module Software: Combining Life Cycle Assessment with Activity- Based Costing to Reduce Global Environmental Impact and Sustain Industrial Profitability (abstract)	Virginia Beach	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	Knipple, Douglas C.; Cornell University	In Vivo Synthesis of Lepidopteran Pheromone Precursors in Saccharomyces Cereviseae: An Economical Process for the Production of Effective, Nontoxic, Environmentally Safe Insect Control Products (abstract)	Geneva	NY
2000 No	Lubrizol Corporation, The	Durable AMPS® Antimist Polymers for Aqueous Metalworking Fluids (abstract)	Wickliffe	ОН
2000 No	Lynd, Lee R.; Dartmouth College	Overcoming the Recalcitrance of Cellulosic Biomass and Envisioning the Role of Biomass in a Sustainable World (abstract)	Hanover	NH
2000 No	Mallinckrodt Baker Inc.	Hydrogen Sulfide Elimination (abstract)	Phillipsburg	NJ
2000 No	Micell Technologies	The MICARE Liquid CO ₂ Dry Cleaning Process (abstract)	Raleigh	NC
2000 No	Mobil Oil Corporation	Membrane Separation in Solvent Lube Dewaxing (abstract)	Fairfax	VA
2000 No	Morton International, Inc.	ADVAFLEX TM Organic Stabilizer (abstract)	Cincinnati	ОН
2000 Yes	RevTech, Inc.	Envirogluv TM : A Technology for Decorating Glass and Ceramicware with Radiation-Curable, Environmentally Compliant Inks (summary)	Edison	NJ
2000 No	Robbat, Jr., Albert; Tufts University	Cheminformatics: Faster, Better, Cheaper Chemical Analysis Software (abstract)	Medford	MA
2000 No	Robbat, Jr., Albert; Tufts University	On-line Detection of Subsurface Pollutants by Thermal Extraction Cone Penetrometry-Thermal Desorption Gas Chromatography/Mass Spectrometry (abstract)	Medford	MA
2000 Yes	Roche Colorado Corporation	An Efficient Process for the Production of Cytovene, a Potent Antiviral Agent (summary)	Boulder	СО
2000 No	Solvox Manufacturing Company	Solvox Special 5501, an Anti- agglomerate and Stickies Neutralizer for the Paper Industry (abstract)	Milwaukee	WI
2000 No	Tanko, James M.; Virginia Polytechnic Institute and State University	Green Chemistry Through the Use of Supercritical Fluids and Free Radicals (abstract)	Blacksburg	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	TechMatch, Incorporated	N-Methylmorpholine-N-Oxide (NMMO): A Novel, Non-toxic, Reusable Solvent for Cellulose as Source Reduction in the Production of Textile Fibers (abstract)	Saint Paul	MN
2000 No	U.S. Army, U.S. Army Edgewood Research, Development, and Engineering Center	Filter Leak Test Using Ozone-Benign Substances (abstract)	Aberdeen Proving Ground	MD
2000 No	U.S. Department of Energy, Argonne National Laboratory	Clean Diesel Breakthrough: Simultaneous Decrease in Emissions of Both Particulates and Oxides of Nitrogen During Combustion (abstract)	Argonne	IL
2000 No	U.S. Environmental Protection Agency, National Risk Management Research Laboratory	Oxygenation of Hydrocarbons by Photocatalysis: A Green Alternative (abstract)	Cincinnati	ОН
2000 Yes	Wong, Chi-Huey; The Scripps Research Institute	Enzymes in Large-Scale Organic Synthesis (summary)	La Jolla	CA
2001 No	Anderson Chemical Company	Total Impact Program - An Environmentally Preferable Program for Laundry (abstract)	Litchfield	MN
2001 No	Aspen Systems, Inc.	Genetic Enhancement of an Anti- Freeze Protein (abstract)	Marlboro	MA
2001 Yes	Bayer Corporation; Bayer AG (Germany)	Baypure TM CX (Sodium Iminodisuccinate): An Environmentally Friendly and Readily Biodegradable Chelating Agent (summary)	Pittsburgh	PA
2001 No	Burlington Chemical Company, Inc.	Development of a Practical Model and Process to Systematically Reduce the Environmental Impact of Chemicals Utilized by the Textile and Related Industries (abstract)	Burlington	NC
2001 No	CDTech	A New Process for Producing Dimethyl Carbonate (abstract)	Pasadena	TX
2001 No	ChemNova Technologies, Inc.	Chrome-free Single-step In-situ Phosphatizing Coatings: Anti- fingerprint Coatings on Galvanized Steel (abstract)	DeKalb	IL
2001 No	Clearmate, Inc.	ClearMate (abstract)	Minneapolis	MN
2001 No	DeCopier Technologies, Inc.	Advanced, Ecologically Safe De-inking Technology to Recover High Quality Pulp from Secondary Fibers/or Recyclable Waste (abstract)	Lawrence	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 No	DuPont Crop Protection	Biocatalytic Production of 5- Cyanovaleramide (abstract)	Wilmington	DE
2001 No	Dynacs Engineering Co., Inc.	Oxidizer Scrubber Project (abstract)	Kennedy Space Center	FL
2001 No	E. I. DuPont de Nemours & Co., Inc.	New Generation Adiponitrile Technology (abstract)	Wilmington	DE
2001 Yes	EDEN Bioscience Corporation	Messenger®: A Green Chemistry Revolution in Plant Production and Food Safety (summary)	Bothell	WA
2001 No	Evergreen Nylon Recycling LLC	Innovative Green Chemistry for Sustainable Manufacture of Caprolactam (abstract)	Augusta	GA
2001 No	Huntsman Polyurethanes	Equipment Flushing Agent for the Polyurethane Industry (abstract)	West Deptford	NJ
2001 No	IBM Burlington (IBM Microelectronics Division)	Solvent Waste Reduction Via An Acetic Acid Bowl Cleaning Process (abstract)	Essex Junction	VT
2001 Yes	Li, Chao-Jun; Tulane University	Quasi-Nature Catalysis: Developing Transition Metal Catalysis in Air and Water (summary)	New Orleans	LA
2001 No	Mitzel, Thomas; Trinity College	Formation of Ene-Diyne Molecules Under Indium Mediated Aqueous Barbier-Conditons (abstract)	Hartford	СТ
2001 No	Motorola Corporation; ULVAC Technologies, Inc.	Eliminating Solvents from Silicon Wafer Manufacturing (abstract)	Austin	TX
2001 No	Nextec Applications, Inc.	Solventless Process for Improving Fabric Performance Properties (abstract)	Vista	CA
2001 No	Northrup-Grumman	Non-Destructive Testing of Corrosion Under Coatings (abstract)	Bethpage	NY
2001 Yes	Novozymes North America, Inc.	BioPreparation TM of Cotton Textiles: A Cost-Effective, Environmentally Compatible Preparation Process (summary)	Franklinton	NC
2001 Yes	PPG Industries	Yttrium as a Lead Substitute in Cationic Electrodeposition Coatings (summary)	Pittsburgh	PA
2001 No	PPG Industries, Inc.	Replacement of Asbestos in the Diaphragm Cell Process for Manufacture of Chlorine and Caustic Soda (abstract)	Monroeville	PA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 No	QuesTek Innovations, LLC	Computational Design of Corrosion Resistant Steels for Structural Applications In Aircraft (abstract)	Evanston	IL
2001 No	Rochester Midland Corporation	Development of an Effective, Coordinated Family of Safe, Green Cleaning and Maintenance Products (abstract)	Rochester	NY
2001 No	U.S. Air Force, Air Force Research Laboratory	Sol-Gel Technology for Low-VOC, Non-Chromated Adhesive & Sealant Applications (abstract)	Wright Patterson AFB	ОН
2001 No	U.S. Air Force, Air Force Research Laboratory	Replacement Non-Toxic Sealants for Standard Chromated Sealants and Repair (abstract)	Wright Patterson AFB	ОН
2001 No	U.S. Army, TACOM- ARDEC - Picatinny Arsenal, NJ	Primerless RTV Silicone Sealants/Adhesives (abstract)	Picatinny Arsenal	NJ
2001 No	U.S. Army, U.S. Army Armament Research, Development, and Engineering Center	Low VOC Chemical Agent Resistance Coatings (abstract)	Picatinny Arsenal	NJ
2001 No	U.S. Army, U.S. Army Research Laboratory	Non-Polluting Composites Remanufacturing and Repair for Military Applications (abstract)	Aberdeen Proving Ground	MD
2001 No	U.S. Army, U.S. Army Research Laboratory - Aberdeen Proving Ground, MD	Recycling Propellants in Non-Polluting Supercritical Fluids: Novel Computational Chemistry Models for Predicting Effective Solvents (abstract)	Aberdeen Proving Ground	MD
2001 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Environmentally Benign Synthesis of Monoglyceride Mixtures Coupled With Enrichment by Supercritical Fluid Fractionation (abstract)	Peoria	IL
2001 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Vegetable Oil Based Printing Inks and Their Environmental Advantages (abstract)	Peoria	IN
2001 No	U.S. Environmental Protection Agency, National Risk Management Research Laboratory	Paris II Solvent Design Software (abstract)	Cincinnati	ОН
2002 No	AEGEANS, Inc.	<u>Tasphox Water Treatment System</u> (abstract)	Harrisburg	PA
2002 No	Air Products and Chemicals, Inc.	DEOXO-FLUOR TM Reagent (abstract)	Allentown	PA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	Applied CarboChemicals, Inc.	Bioderived Succinic Acid as a Platform for a Carbohydrate Chemistry (abstract)	Alto	MI
2002 Yes	Beckman, Eric J.; University of Pittsburgh	Design of Non-Fluorous, Highly CO ₂ -Soluble Materials (summary)	Pittsburgh	PA
2002 No	Bristol-Myers Squibb Company	The Process Greenness Scorecard: Design for Environmental Health and Safety Through Green Chemistry (abstract)	New York	NY
2002 Yes	Cargill Dow LLC	NatureWorks TM PLA Process (summary)	Minnetonka	MN
2002 Yes	Chemical Specialties, Inc. (CSI)	ACQ Preserve®: The Environmentally Advanced Wood Preservative (summary)	Charlotte	NC
2002 No	ChitinWorks America; Payne, Gregory F.; University of Maryland Biotechnology Institute	Industry-University-Government Partnership for Converting Regional Wastes into Chemical Products (abstract)	College Park	MD
2002 No		An Innovative Replacement for Chromium for Aluminum Coatings (abstract)	New Orleans	LA
2002 No	Donohue, Marc; Johns Hopkins University	Supercritical Fluid Spray Application Process for Adhesives and Primers (abstract)	Baltimore	MD
2002 No	Dordick, Jonathan S.; Rensselaer Polytrechnic Institute	Development of Extraordinarily Active Biocatalysts for Highly Selective and Efficient Synthesis of Chemicals and Pharmaceuticals (abstract)	Troy	NY
2002 No	DynynStyl Inc.	<u>EcoFuel - A Safe and Effective Canned Heat Alternative (abstract)</u>	Lake Worth	FL
2002 No	EarthShell Corporation	EarthShell Packaging: Designed with the Environment in Mind (abstract)	Lutherville	MD
2002 No	EPI Environmental Plastics Inc.	Totally Degradable Plastic Additives (TDPA TM) (abstract)	Conroe	TX
2002 No	Evans Cooling Systems, Inc.	The EVANS DE-TOX TM Process for the Detoxification of Ethylene Glycol (abstract)	Sharon	CT
2002 No	ExxonMobil Chemical	Development of Two Unique Processes for Manufacturing High-Purity Cyclopentane from Dicyclopentadiene (abstract)	Baytown	TX
2002 No	Farris, Richard J.; University of Massachusetts Amherst	Recycling of Cross-Linked Materials Via "High-Pressure High-Temperature Sintering": Redefining Thermosets (abstract)	Amherst	MA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	GE Plastics	Recovery and Beneficial Use of Sodium Nitrite from a Wastewater Stream (abstract)	Mount Vernon	IN
2002 No	Henkel Surface Technologies	Water-Based Synthesis and Purification of Mannich Base Modified Polyphenols (abstract)	Madison Heights	MI
2002 No	Hill, Craig L.; Emory University; Weinstock, Ira A.; U.S. Department of Agriculture Forest Service, Forest Products Laboratory	Effluent-Free and Selective Delignification Using Only Oxygen and Water (abstract)	Atlanta	GA
2002 No	Hudlicky, Tomas; University of Florida	Tandem Enzymatic-Electrochemical Methods for Green Manufacturing: Efficient Synthesis of Pharmaceuticals from Halogenated Aromatic Waste (abstract)	Gainesville	FL
2002 No	Hybrid Plastics	A Green Revolution with Nanostructured TM Chemicals (abstract)	Fountain Valley	CA
2002 No	Itronics Metallurgical, Inc.	Fertilizer From Photowaste (abstract)	Reno	NV
2002 No	Madison Chemical Company	Cadmium Replacement in Mechanical Coating (abstract)	Madison	IN
2002 No	Mohan, Ram S.; Illinois Wesleyan University	Environmentally Friendly Organic Synthesis Using Bismuth Compounds (abstract)	Bloomington	IL
2002 No	OMNOVA Solutions Inc.	Short Perfluoroalkyl Chain, Polymeric Fluorosurfactants as Wetting, Flow and Leveling Agents for Aqueous Coatings (abstract)	Fairlawn	ОН
2002 No	ONDEO Nalco Company	Nalco ACT – Advanced Condensate Treatment for Boiler Systems (abstract)	Napervile	IL
2002 Yes	Pfizer, Inc.	Green Chemistry in the Redesign of the Sertraline Process (summary)	New London	CT
2002 No	RADTECH International, North America	Eliminating Air Pollution (VOC and HAP) at the Source through the Use of Ultraviolet and Electron Beam Polymerization (abstract)	Bethesda	MD
2002 Yes	SC Fluids, Inc.	SCORR – Supercritical CO ₂ Resist Remover (summary)	Nashua	NH
2002 No	SePRO Corporation	Integrated Methods for the Control of Aquatic Plants (IMCAP TM): Innovative Chemical and Precision Technologies (abstract)	Carmel	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	Sunshine Makers, Inc.	Crystal Simple Green® (abstract)	Huntington Harbour	CA
2002 No	Tempyrox Company, Inc.	World-wide Elimination or Reduction of Solvent and Chemical Cleaning of Laboratory Glassware Using Thermal Pyrolysis-oxidation Chemistry (abstract)	Dallas	TX
2002 No	U.S. Army, U.S. Army Soldier and Biological Chemical Command	Electronic and Photonic Polymers from Biocatalysis (abstract)	Natick	MA
2002 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Environmentally Benign Two-Step Synthesis of Fatty Alcohol Mixtures Using Supercritical Carbon Dioxide (SC-CO ₂) and SC-CO ₂ /Hydrogen Mixtures (abstract)	Peoria	IL
2002 No	U.S. Department of Agriculture, Southern Regional Research Center	Environmentally Benign Antibacterial Agents (abstract)	New Orleans	LA
2002 No	U.S. Department of Energy, Argonne National Laboratory	Autothermal Reforming Catalyst for Fuel Cells (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Argonne National Laboratory	Electrometallurgical Treatment of Nuclear Waste (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Argonne National Laboratory	Electrorefining of Spent Nuclear Fuel (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Los Alamos National Laboratory	Environmentally Benign Enzyme Reactor for Polymer Synthesis (abstract)	Los Alamos	NM
2002 No	U.S. Department of Energy, Pacific Northwest National Laboratory	CSSX Process Demonstration (abstract)	Richland	WA
2002 No	U.S. Navy, U.S. Naval Research Laboratory	Patterned Channel-Constrained Process for Additive Electroless Metal Deposition (abstract)	Washington	DC
2002 No	U.S. Polychemical Corporation	Dispersit TM : A Waterbased Oil Dispersant for Oil Spills in Salt and Fresh Water (abstract)	Chestnut Ridge	NY
2002 No	Young, Ming-Wan; Xanthos, Marino; New Jersey Institute of Technology	Melt Processing for Solvent-Less Manufacture of High Performance Dry Powder Coatings (abstract)	Newark	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2003 No	AC Products	Enviromask - A Zero VOC Method to Aircraft Metal Forming (abstract)	Placentia	CA
2003 Yes	AgraQuest, Inc.	Serenade [®] : An Effective, Environmentally Friendly Biofungicide (summary)	Davis	CA
2003 No	Allen, Christopher W.; University of Vermont; Peterson, Eric S.; Idaho National Engineering and Environmental Laboratory	Environmentally Benign Preparation and Polymerization of Phosphazene Polymers (abstract)	Burlington	VT
2003 No	Allen, Dianne; University of Massachusetts Amherst	A Novel Additive System for Time- Controlled Degradation of Polypropylene (abstract)	Jamaica Plain	MA
2003 No	Allen, Robert D.; IBM Almaden Research Center; Carbonell, Ruben; North Carolina State University; DeSimone, Joseph M.; University of North Carolina at Chapel Hill; Gleason, Karen K.; Massachusetts Institute of Technology; Ober, Christopher K.; Cornell University	Environmentally Benign Lithography for Semiconductor Manufacturing (abstract)	Chapel Hill	NC
2003 No	Buckman Laboratories International, Inc.	Enzymes as an Alternative to Toxic Materials for Treatment of Slime Deposits in the Paper Industry (abstract)	Memphis	TN
2003 No	Crivello, James V.; Rensselaer Polytechnic Institute	Synthesis and Photopolymerization of Monomers Derived from Biorenewable Sources (abstract)	Troy	NY
2003 No	Crompton Corporation	ACRAMITE TM - A New Selective and Safe Miticide (abstract)	Greenwich	CT
2003 No	Deft, Inc.	Zero VOC Protective Coatings for Aerospace Applications (abstract)	Irvine	CA
2003 Yes	DuPont	Microbial Production of 1,3- Propanediol (summary)	Wilmington	DE
2003 No	Epmar Corporation	Kemiko and Sta-Crete Low VOC Architectural Coating (abstract)	Santa Fe Springs	CA
2003 No	Flexabar Corporation	Aquagard Waterbase Antifouling Bottom Boat Paint (abstract)	Lakewood	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2003 Yes	Gross, Richard A.; Polytechnic University	New Options for Mild and Selective Polymerizations Using Lipases (summary)	Brooklyn	NY
2003 No	H2OK Engineering	The Use of Vitamin C To Neutralize Oxidants Such as Chlorine in Drinking Water Which Is Often Discharged to the Environment (abstract)	Mount Vernon	WA
2003 No	Hudlicky, Tomas; University of Florida	Direct Biocatalytic Synthesis of Functionalized Catechols: A Short Route to Combretastatin A-1 (abstract)	Gainesville	FL
2003 No	Kaplan, David L.; Tufts University	Antioxidant-Functionalized Polymers (abstract)	Medford	MA
2003 No	Kraus, George A.; Iowa State University	Photoacylation and Photoalkylation of Quinones (abstract)	Ames	IA
2003 No	Micro Interconnect Technology	An Economically Advantaged, Green Process, for the Fabrication of Printed Circuit Boards (abstract)	Bedford	NH
2003 No	Nicolaou, K.C.; University of California, San Diego	Tandem Reactions, Cascade Sequences and Biomimetic Strategies in Chemical Synthesis (abstract)	La Jolla	CA
2003 No	ONDEO Nalco Company	STABREX® Microorganism Control Chemical: An Environmentally Sensible Chlorine Alternative for Industrial Water Treatment (abstract)	Naperville	IL
2003 No	Periana, Roy Anthony; University of Southern California	Low Temperature, Hydrocarbon Hydroxylation: The Key to Greener, Lower Cost Chemistry for Chemicals, Fuel and Power for the 21st Century (abstract)	Los Angeles	CA
2003 No	Plug Power Inc.	High CO Tolerant Polymer Electrolyte Membrane Fuel Cell Technology (abstract)	Latham	NY
2003 No	RajanBabu, T. V.; Ohio State University	Asymmetric Catalysis in Water: Hydroxyphosphine and Hydroxyphosphinite Ligands for Amino Acid Synthesis (abstract)	Columbus	ОН
2003 Yes	Shaw Industries, Inc.	EcoWorx TM Carpet Tile: A Cradle-to- Cradle Product (summary)	Dalton	GA
2003 No	Shi, Yian; Colorado State University	An Environmentally Benign Asymmetric Epoxidation Me (abstract)	Fort Collins	СО
2003 No	Smart Sonic Corporation	440-R SMT Detergent Hazardous Solvent Alternative for Printed Circuit Board Stencil Cleaning (abstract)	Van Nuys	CA

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2003 Yes	Süd-Chemie Inc.	A Wastewater-Free Process for Synthesis of Solid Oxide Catalysts (summary)	Louisville	KY
2003 No	Syngenta Crop Protection, Inc.	Conversion of the Herbicide, Metolachlor, to S-Metolachlor in the U.S. Marketplace (abstract)	Greensboro	NC
2003 No	Treyco Supply, Inc.	Development of a Safer and More <u>Effective Biodegradable Antimicrobial</u> <u>Cleaning Product (abstract)</u>	Wilson	NC
2003 No	U.S. Air Force, Air Force Research Laboratory, Wright Patterson Air Force Base	New, Environmentally Protective Aircraft De-Icing Technology (abstract)	Dayton	ОН
2003 No	Wachs, Israel E.; Lehigh University	Converting Pollution to Profits: Valuable Chemicals & Energy (abstract)	Bethlehem	PA
2003 No	Xerox Corporation	Xerographic Dry Ink Resin Manufacturing Hazard & Emission Reduction (abstract)	Webster	NY
2004 No	Advanced Marine Technologies (AMT) BioProducts Corporation	Reducing Nitrates in Buzzards Bay with the Production of Organic Gem® Fertilizer from New Bedford's Fish Processing Wastes (An SGNB Project) (abstract)	South Dartmouth	MA
2004 No	BASF Corporation	All-Acrylic Binders for Low VOC Architectural Coatings (abstract)	Charlotte	NC
2004 No	Beckman, Eric J.; University of Pittsburgh	In-Situ Generation of H2O ₂ in CO ₂ for Green Oxidations (abstract)	Pittsburgh	PA
2004 No	Bergman, Robert G.; University of California at Berkeley	Developing Highly Efficient C-H Activation of Hydrocarbons (abstract)	Berkeley	CA
2004 No	Bose, Ajay K.; Stevens Institute of Technology	Cost Effective Green Chemistry Approaches to Pharmaceuticals: Microwave Techniques & "Grindstone Chemistry" for Solventless Reactions and Less Pollution (abstract)	Hoboken	NJ
2004 Yes	Bristol-Myers Squibb Company	Development of a Green Synthesis for Taxol® Manufacture via Plant Cell Fermentation and Extraction (summary)	New York	NY
2004 Yes	Buckman Laboratories International, Inc.	Optimyze [®] : A New Enzyme Technology to Improve Paper Recycling (summary)	Memphis	TN
2004 No	C.H. Thompson Co. Inc.	Non Chromate Chemical Conversion Alternative Coating (abstract)	Binghamton	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 No	Cargill, Inc.	BioTrans® 1000 Soybean-Based Transformer Fluid (abstract)	Wayzata	MN
2004 No	Dionysiou, Dionysios D.; University of Cincinnati	Water Immiscible Room Temperature Ionic Liquids as Green Solvents for Extraction and In-Situ Photolytic Destruction of Environmental Organic Contaminants (abstract)	Cincinnati	ОН
2004 No	Dow Chemical Company, The	n-Alkyl Propionate Ester Solvents (abstract)	Midland	MI
2004 Yes	Eckert, Charles A.; Liotta, Charles L.; Georgia Institute of Technology	Benign Tunable Solvents Coupling Reaction and Separation Processes (summary)	Atlanta	GA
2004 No	Emisphere Technologies, Inc.	Environmental Advantages Offered by Boric Acid Mediated Amidation Between a Carboxylic Acid and an Amine to Form a Carboxamide, a Basic Unit of Peptides and Proteins (abstract)	Tarrytown	NY
2004 Yes	Engelhard Corporation	Engelhard Rightfit TM Organic Pigments: Environmental Impact, Performance, and Value (summary)	Iselin	NJ
2004 No	Environmentally Sensitive Solutions, Inc.	Utilization of Neutral Cleaners for Reducing Environmental and Health Impacts (abstract)	Mequon	WI
2004 No	Ethyl Petroleum Additives Inc.	Metal, Phenol and Ash-Free Antiwear Hydraulic Additive Providing Performance Previously Only Achieved by Use of Zinc Containing Additives (abstract)	Richmond	VA
2004 No	Folia, Inc.	Reactin Series TM AS Copolymers: Specialty Reactive Aspartic Acid Copolymers (abstract)	Birmingham	AL
2004 No	Goodyear Tire & Rubber Company, The	RPS Technology: Breakthrough Technology for Water-Based Paints, Coatings, Adhesives and Sealants (abstract)	Akron	ОН
2004 No	Janda, Kim D.; Lerner, Richard A.; The Scripps Research Institute	Antibody Catalysis (abstract)	La Jolla	CA
2004 No	Janssen Pharmaceutica Inc.	ECONEA® 028: Designing and Developing a Metal-Free, Environmentally Safe, and Effective Antifoulant for Use Against Hard Fouling Marine Organisms (abstract)	Titusville	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 Yes	Jeneil Biosurfactant Company	Rhamnolipid Biosurfactant: A Natural, Low-Toxicity Alternative to Synthetic Surfactants (summary)	Saukville	WI
2004 No	Knockout Group, The	"Knockout": A Dynamic Cleaning Experience, In a Colloidal Format, With Pollution Prevention Qualities (abstract)	Chicago	IL
2004 No	LCP Tech Holdings LLC	Development of Novel Liquid Crystal Polymers (abstract)	Cincinnati	ОН
2004 No	Li, Chao-Jun; Tulane University	Developing Direct Catalytic Addition of Alkynes to Aldehydes and Imines in Water and under Solventless Conditions (abstract)	New Orleans	LA
2004 No	PanTerra Technologies, Incorporated	Reducing Domestic Petroleum Consumption by Twenty-five Percent (abstract)	Goshen	CT
2004 No	Plug Power Inc.	Demonstration of a Home Energy Station for Production of Electricity, Heat, and Hydrogen (abstract)	Latham	NY
2004 No	Plug Power Inc.	Zero-to-Landfill Fuel Cell Systems (abstract)	Latham	NY
2004 No	PPG Architectural Finishes, Inc.	Pure Performance "Zero" VOC Latex Coating (abstract)	Pittsburgh	PA
2004 No	ProChemTech International, Inc.	ElectroBrom Biocide System (abstract)	Brockway	PA
2004 No	Ragauskas, A.J.; Georgia Institute of Technology	Mill Designed Biobleaching Technologies (abstract)	Atlanta	GA
2004 No	RD Chemical Company	ChemBond TM EC An Alternate Printed Circuit Board Oxide Process (abstract)	Mountain View	CA
2004 No	Sahinidis, Nikolaos V.; University of Illinois at Urbana	A Systematic Methodology for the Design and Identification of Environmentally Benign Chemicals (abstract)	Urbana	IL
2004 No	Sheth, Atul C.; University of Tennessee Space Institute	From Waste-to-Energy: Catalytic Steam Gasification of Poultry Litter (abstract)	Tullahoma	TN
2004 No	U.S. Department of Energy, Los Alamos National Laboratory	Formamide Replacement in Genetic Sequencing (abstract)	Los Alamos	NM
2004 No	Ulano Corporation	Waste Minimization and Pollution Prevention Programs for the Production of Films & Chemicals in the Graphic Arts Industry (abstract)	Brooklyn	NY

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 No	Uniseal Inc.	Elimination of Trichloroethylene, a Hazardous Air Pollutant (HAP), From A Production Process (abstract)	Evansville	IN
2004 No	Zeller International	Aqua Form TM , a water based, odorless, non-emissive, non-styrenated bonding/laminating resin for structural/advanced composites (abstract)	Downsville	NY
2005 No	Afton Chemical Corporation	Metal-, Phenol-, and Ash-Free Antiwear Hydraulic Additive: Providing Performance Previously Only Achieved by Use of Zinc- Containing Additives (abstract)	Richmond	VA
2005 No	Air Products Polymers, L.P.	Airflex® EF811 Vinyl Acetate Ethylene (VAE) Emulsion Polymer: A Binder for Environmentally Friendly, High-Performance, Cost-Effective Architectural Coatings (abstract)	Allentown	PA
2005 Yes	Archer Daniels Midland Company	Archer RC TM : A Nonvolatile, Reactive Coalescent for the Reduction of VOCs in Latex Paints (summary)	Decatur	IL
2005 Yes	Archer Daniels Midland Company; Novozymes	NovaLipid TM : Low <i>Trans</i> Fats and Oils Produced by Enzymatic Interesterification of Vegetable Oils Using Linggraps® (symmetry)	Decatur	IL
2005 No	Atmospheric Glow Technologies, Inc.	<u>Using Lipozyme[®] (summary)</u> <u>Sterilization of Medical Devices with</u> <u>Atmospheric Plasma (abstract)</u>	KNO _x ville	TN
2005 Yes	BASF Corporation	A UV-Curable, One-Component, Low- VOC Refinish Primer: Driving Eco- Efficiency Improvements (summary)	Whitehouse	ОН
2005 No	Beckman, Eric J.; University of Pittsburgh	N-Vinyl Formamide: The "Greening" of a Green Replacement for Acrylamide (abstract)	Pittsburgh	PA
2005 No	Bose, Ajay K.; Stevens Institute of Technology	Unconventional High-Efficiency Green Synthesis (abstract)	Hoboken	NJ
2005 No	Chemical Compliance Systems, Inc.	Green Product and Munitions Compliance Analytical Systems (abstract)	Lake Hopatcong	NJ
2005 No	Cholli, Ashok L.; University of Massachusetts Lowell	Biocatalytically Synthesized High- Performance Novel Antioxidants for Materials (abstract)	Lowell	MA
2005 No	Cleary Chemical Corporation	ROACH TERMINAL TM Insect Control: A Non-toxic Alternative that Prevents the Development of Pest Cockroach Populations (abstract)	Dayton	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 No	Crane & Company, Inc.	Substitution with Carbon Dioxide Eliminates Major Use of Sulfuric Acid (abstract)	Dalton	MA
2005 No	DeSimone, Joseph M.; University of North Carolina at Chapel Hill	Surfactant-Free Supercritical Carbon Dioxide Fluoroolefin Polymerization Technology (abstract)	Chapel Hill	NC
2005 No	Dow BioProducts Ltd.	WOODSTALK TM Strawboard (abstract)	Midland	MI
2005 No	Dow Chemical Company, The	VORANOL* VORACTIV* Polyols for Flexible Polyurethane Foams (abstract)	Midland	MI
2005 No	Ecolab	Formula 1 TM Laundry System (abstract)	Inver Grove Heights	MN
2005 No	Eli Lilly and Company	An Improved Approach to the Preparation of Duloxetine and Atomoxetine (abstract)	Lafayette	IN
2005 No	GlaxoSmithKline	Discovery and Development of a Green Process for Radafaxine (abstract)	Philadelphia	PA
2005 No	Harris Labs	Evapo-Rust TM : Nonhazardous Rust Removal by Selective Chelation (abstract)	Springdale	AR
2005 No	Highland Supply Corporation	Using Chemistry and Engineering Technology to Reduce Volatile Organic Compound (VOC) Emissions and Eliminate Hazardous Process Waste in the Printing Industry (abstract)	Highland	IL
2005 No	International Chemical Products, Inc. (ICP)	PICKLEX®: An Environmentally Safe Metal Surface Preparation and Pretreatment Chemical (abstract)	Huntsville	AL
2005 No	Lonza, Inc.	Equinox TM : A Greener Approach to Microbiological Control (abstract)	Fair Lawn	NJ
2005 No	MacRitchie, Finlay; Kansas State University	The Application of Ultrasound to Catalyze Reactions in Some Industrial Processes (abstract)	Manhattan	KS
2005 Yes	Merck & Co.	A Redesigned, Efficient Synthesis of Aprepitant, the Active Ingredient in Emend®: A New Therapy for Chemotherapy-Induced Emesis (summary)	Rahway	NJ
2005 Yes	Metabolix, Inc.	Producing Nature's Plastics Using Biotechnology (summary)	Cambridge	MA
2005 No	METSS Corporation	Environmentally Friendly Aircraft Deicing Fluid (abstract)	Westerville	ОН

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 No	Microcide, Inc.	Technology of Safe, Biodegradable, and Non-Polluting Products as Alternatives to Toxic Microbicidal Chemicals (abstract)	Troy	MI
2005 No	Novartis Pharmaceuticals Corporation	Development of Green and Practical Processes Utilizing Dialkyl Carbonates as Alkylating Reagents (abstract)	East Hanover	NJ
2005 No	Pfizer Global Research and Development	A Green Process for the Synthesis of Quinapril Hydrochloride (abstract)	New London	CT
2005 No	Pfizer Global Research and Development	Separation of Racemic Tetralone (abstract)	New London	CT
2005 No	Pfizer Global Research and Development	The Discovery and Development of an Environmentally Benign Commercial Route to Sildenafil Citrate (abstract)	New London	CT
2005 Yes	Rogers, Robin D.; University of Alabama	A Platform Strategy Using Ionic Liquids to Dissolve and Process Cellulose for Advanced New Materials (summary)	Tuscaloosa	AL
2005 No	Rynex Holdings, Ltd.	RYNEX® Dry Cleaning Solution (abstract)	Woodbury	NY
2005 No	Severtson, Steven J.; University of Minnesota	Research, Development, and Commercialization of Environmentally Benign Thermoplastic Pressure- Sensitive Adhesive Label Products (abstract)	St. Paul	MN
2005 No	Stoller Enterprises, Inc.	Stoller STIMULATE: A Natural Product for Improving Crop Plant Performance and Enhancing Pest Resistance (abstract)	Houston	TX
2005 No	U.S. Army, U.S. Army Engineer Research and Development Center	Environmentally Friendly Water Treatments for Control of Corrosion, Scale, and Bioactivity in Heating and Cooling Systems (abstract)	Champaign	IL
2005 No	U.S. Army, U.S. Army Engineer Research and Development Center	Mold Prevention through the Novel Use of In Situ Electrochemistry to Eliminate Water Seepage in Concrete Structures (abstract)	Champaign	IL
2005 No	Westech Aerosol Corporation	WT-HSC13: A High-Strength, Low- VOC Aerosol Adhesive (abstract)	Port Orchard	WA
2006 No	ArchAngel Enterprises, LLC	Stalosan F Microbial and Environmental Control for Use in Housing of All Animals (abstract)	Cedar Rapids	IA
2006 Yes	Arkon Consultants and NuPro Technologies, Inc.	Environmentally Safe Solvents and Reclamation in the Flexographic Printing Industry (summary)	Winston Salem	n NC

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	Broin and Associates	BFRAC TM and BPX TM : Launching the Biorefining Revolution (abstract)	Sioux Falls	SD
2006 No	Bunge North America; Novozymes North America, Inc.	Enzymatic Degumming of Vegetable Oils: Reducing Environmental Impact and Improving Oil Yield (abstract)	Saint Louis	МО
2006 No	Coastwide Laboratories	Sustainable Earth® Cleaning Products Designed for Health and the Environment (abstract)	Wilsonville	OR
2006 Yes	Codexis, Inc.	Directed Evolution of Three Biocatalysts to Produce the Key Chiral Building Block for Atorvastatin, the Active Ingredient in Lipitor® (summary)	Redwood City	CA
2006 No	Diwekar, Urmila; University of Illinois at Chicago	Greener by Design: An Efficient, Multiobjective Framework Under Uncertainty (abstract)	Chicago	IL
2006 No	Dow AgroSciences LLC	Aminopyralid: Increasing Protection of Endangered Species through Improved Management of Non-Native Plants While Maximizing Land Use and Significantly Reducing Herbicide Volume and Application (abstract)	Indianapolis	IN
2006 No	Dow AgroSciences LLC; U.S. Department of Agriculture, Agricultural Research Service	GF-120 TM NF Naturalyte TM Fruit Fly Bait (abstract)	Indianapolis	IN
2006 No	DuPont Company	Bioderived Solvents, Surfactants, Fuel Additives, and Monomers (abstract)	Wilmington	DE
2006 No	DuPont Company	New Asymmetric Hydroxylation Technology for the Commercial Manufacture of Indoxacarb (abstract)	Wilmington	DE
2006 No	Duraflame, Inc.	Duraflame® All-Natural Manufactured Firelog (abstract)	Stockton	CA
2006 No	FluidPhase Technologies Inc.	A Preproduction System for Re- Refining Used Oil Using Closed-Loop, Patented, Atomization Technology (abstract)	Pittsburgh	PA
2006 No	Foster-Miller, Inc.	Environmentally Advantaged Formulations for Aircraft Ice Control (abstract)	Waltham	MA
2006 No	Garcia-Garibay, Miguel A.; University of California, Los Angeles	Solvent-Free, Crystal-to-Crystal Photochemical Reactions: The Synthesis of Adjacent Stereogenic Quaternary Centers (abstract)	Los Angeles	CA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	GE Plastics	Flexible NORYL* Resins for Wire Coating (abstract)	Selkirk	NY
2006 No	Go-Tec, Inc.	Acetylene: A Viable Fuel Alternative for the Internal Combustion Engine (abstract)	Columbia	МО
2006 No	GreenEarth® Cleaning, LLC	GreenEarth® Cleaning, Dry Cleaning with Silicone Solvent (abstract)	Kansas City	MO
2006 No	Halliburton Energy Services	ACCOLADE TM Synthetic-Based Drilling Fluid System (abstract)	Houston	TX
2006 No	HALOX	New Water-Based Organic Corrosion Inhibitor (abstract)	Hammond	IN
2006 No	Innovative Formulation Company	Ecological Paint Antimicrobial Clear Coat (abstract)	Tucson	AZ
2006 No	Interface Fabrics	Closing the Loop with "Benign by Design" Biobased Fabrics and Backings (abstract)	Grand Rapids	MI
2006 No	iSoy Technologies Corporation	Biocatalytic Production of Biobased Personal Care Products (abstract)	Trout Valley	IL
2006 No	Johnson Polymer, LLC	JONCRYL® FLX 5000: A High- Performance, Water-Based Polymer to Facilitate the Conversion from Solvent- to Water-Based Inks in Surface Film Flexible Packaging Printing (abstract)	Sturtevant	WI
2006 No	JohnsonDiversey, Inc.	A Novel Cleaning System Using Less Toxic, Safer Chemicals (abstract)	Sturtevant	WI
2006 No	LANXESS Corporation	Picaridin: A Safe, Effective, and Environmentally Friendly Insect Repellent that People Will Use (abstract)	Pittsburgh	PA
2006 Yes	Merck & Co., Inc.	Novel Green Synthesis for β-Amino Acids Produces the Active Ingredient in Januvia TM (summary)	Rahway	NJ
2006 No	MLI Associates	Environmentally Benign Deicing/Anti- Icing Agents (abstract)	Shoreham	NY
2006 No	Montana Polysaccharides Corporation	Multipurpose Exopolymer as a Raw Material (abstract)	Rock Hill	SC
2006 No	Netravali, Anil N.; Cornell University	Green Composites: Environment- Friendly and Fully Sustainable (abstract)	Ithaca	NY
2006 No	Nike, Inc.	Development of Nike Brand Footwear Outsole Rubber as Environmentally Preferred Material (abstract)	Beaverton	OR
2006 No	Pfizer Global Research and Development	Green Chemistry in the Redesign of the Celecoxib Process (abstract)	New London	CT

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	PostSaver USA	PostSaver® (abstract)	Memphis	TN
2006 No	Praxair, Inc.	Oxygen-Enhanced Combustion for NO _x Control (abstract)	Tonawanda	NY
2006 No	Recovery Systems Inc.	Innovative Process for Treatment of Hog Waste and Production of Saleable Products from This Waste (abstract)	Wilmington	NC
2006 No	Rhodia Inc.	Guar-Based Chemistry Advances Targeted Performance of Crop Sprays by Reducing Drift and Improving Retention (abstract)	Cranbury	NJ
2006 No	Rohm and Haas Company; Johns Manville	Invention and Commercialization of Environmentally Smart Thermosetting Binders (abstract)	Philadelphia	PA
2006 No	Rust-Oleum Corporation	Zero-VOC, Zero-HAP, No-Odor Industrial Coatings (abstract)	Vernon Hills	IL
2006 Yes	S.C. Johnson & Son, Inc.	Greenlist TM Process to Reformulate Consumer Products (summary)	Racine	WI
2006 No	Separation Technologies LLC	Beneficiation and Use of Coal Combustion Fly Ash: A Major Success in Reducing Solid Waste and Increasing Supplies of Construction Materials While Reducing Greenhouse Gas Emissions (abstract)	Needham	MA
2006 Yes	Suppes, Galen J.; University of Missouri- Columbia	Biobased Propylene Glycol and Monomers from Natural Glycerin (summary)	Columbia	МО
2006 No	Syngenta	Mesotrione and Callisto® Plant Technology (abstract)	Washington	DC
2006 No	Tester, Jefferson W.; Massachusetts Institute of Technology	Replacing Organic Solvents and Homogeneous Catalysts with Water and Carbon Dioxide (abstract)	Cambridge	MA
2006 No	U.S. Department of Energy, Pacific Northwest National Laboratory	Self-Assembled Monolayers on Mesoporous Silica Technology: A Green Alternative Synthesis of a Novel Adsorbent for Mercury Source Reduction (abstract)	Richland	WA
2006 No	Ventana Research Corporation	Development of High Performance, Environmentally Benign Hard Disk Drive Polishing Fluids and Corrosion Inhibitors (abstract)	South Tucson	AZ
2006 No	W.F. Taylor Co., Inc.	Meta-Tec TM Low-VOC, One- Component, Cross-Linking Adhesive: Innovative Science–Applied Technology (abstract)	Dalton	GA

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	Warner, John C.; University of Massachusetts Lowell	Bioinspired Thymine-Based Photopolymers: A Green Chemistry Platform for Innovation, Research, Education, and Outreach (abstract)	Lowell	MA
2006 No	Xerox Corporation	Xerox's Emulsion Aggregation Toner Technology (abstract)	Webster	NY
2006 No	ZIVATECH Corporation	High-Efficiency Olefin to Polyolefin Process with Toxic Solvent Elimination (abstract)	North Hills	CA
2006 No	ZIVATECH Corporation	New Biomass Catalytic Reforming Process for Solid Oxide Fuel Cell Power Generation (abstract)	North Hills	CA
2007 No	3M Office Supplies Division Laboratory	Development of Water-Based Materials for Post-it® Super Sticky Notes (abstract)	St. Paul	MN
2007 No	Advanced BioCatalytics Corporation	Uncoupling Biochemical Processes for Enhanced Biological Efficiency (abstract)	Irvine	CA
2007 No	Amerikal Products Corporation	Genesis® BRIGL Wash (abstract)	Waukegan	IL
2007 No	Arch Treatment Technologies, Inc.	Wolman® AG Metal-Free Wood Preservative (abstract)	Smyrna	GA
2007 No	Arkema Inc.	Green Chemistry in the Manufacture of Thioglycolic Acid (abstract)	Philadelphia	PA
2007 No	Aspen Technology, Inc.	Correlating and Predicting Drug Molecule Solubility with a Nonrandom, Two-Liquid Segment Activity Coefficient Model (abstract)	Cambridge	MA
2007 No	Barricade International, Inc.	Environmentally and Toxicologically Safe Firefighting Gel (abstract)	Hobe Sound	FL
2007 No	BASF Corporation	A Non-HAP (Hazardous Air Pollutant) Coating for Extruded Aluminum (abstract)	Southfield	MI
2007 No	Beaulieu Group, LLC	Nexterra TM Carpet: Modified PET Carpet Backing (abstract)	Adairsville	GA
2007 No	Benchmark Performance Group, Inc.	GreensKeeper® Polymer Slurries for Oil and Gas Well Stimulation (abstract)	Houston	TX
2007 No	Bristol-Myers Squibb Company	Irbesartan (Avapro®) Greenness Project (abstract)	New York	NY
2007 No	Buckman Laboratories International, Inc.	Enzymes to Reduce Energy Use and Increase Recycling of Paper (abstract)	Memphis	TN
2007 Yes	Cargill, Incorporated	BiOH TM Polyols (summary)	Wayzata	MN

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Century Industrial Coatings Inc.	Nulo TM Technology: HAP-Free, Low- VOC, Water-Based, Air-Dry Coatings (abstract)	Jacksonville	TX
2007 No	Changing World Technologies, Inc.	Waste to Renewable Diesel (abstract)	West Hempstead	NY
2007 No	Cholli, Ashok L.; University of Massachusetts Lowell	High Performance Macromolecular Antioxidants for Materials: A Green Chemistry Approach (abstract)	Lowell	MA
2007 No	Crosslink	Corrosion-Resistance without Chromium: On-Demand Release of Environmentally Safe, Non-Chromium Corrosion Inhibitors from Electroactive Polymer Coatings (abstract)		МО
2007 No	Dasgupta, Purnendu K.; The University of Texas at Arlington	A Green Analyzer for Arsenic in Drinking Water (abstract)	Arlington	TX
2007 No	Eastman Chemical Company	Optifilm Enhancer 400 – A Nonvolatile Coalescent for Formulating High-Performance, Reduced-VOC Architectural Coatings (abstract)	Kingsport	TN
2007 No	Ecology Coatings	Green Chemistry for Industrial Coatings (abstract)	Akron	ОН
2007 No	ECOSIL Technologies LLC	New One-Step, Chromate-Free Anticorrosion Coatings for Aluminum Alloys and HDG Steel (abstract)	Fairfield	ОН
2007 No	Emerson & Cuming	<u>Tin- and Copper-Compatible</u> <u>Conductive Adhesive for Lead-Free</u> <u>Electronic Circuit Assembly (abstract)</u>	Billerica	MA
2007 No	Environmentally Sensitive Solutions, Inc.	Liquid Seal and Nonhazardous Cleaner Eliminate Odor, Health, and Maintenance Problems Stifling the Acceptance and Implementation of Waterless Urinals (abstract)	Mequon	WI
2007 No	Exelus, Inc.	ExSact – A "Green" Gasoline Technology (abstract)	Livingston	NJ
2007 No	Exelus, Inc.	ExSyM – The Next Generation of Styrene Monomer Technology (abstract)	Livingston	NJ
2007 No	Fungi Perfecti, LLC	Mycopesticides and Mycoattractants (abstract)	Olympia	WA
2007 No	Georgia-Pacific Chemicals, LLC; Tao, Daniel, University of Kentucky	Georgia-Pacific Mining Reagents That Improve Recovery, Reduce Wastes, and Conserve Water and Other Natural Resources (abstract)	Decatur	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Georgia-Pacific Corporation	Nitamin Steady Delivery Fertilizers for Improved Nitrogen Efficiency in Crops (abstract)	Decatur	GA
2007 No	Green Blue (Green Blue Institute)	CleanGredients TM : Systems-Based Information Technology for Green Chemistry (abstract)	Charlottesville	VA
2007 Yes	Headwaters Technology Innovation	<u>Direct Synthesis of Hydrogen Peroxide</u> <u>by Selective Nanocatalyst Technology</u> (<u>summary</u>)	Lawrenceville	NJ
2007 No	Hutchison, James E.; University of Oregon	Greener Production of Functionalized Nanoparticles (abstract)	Eugene	OR
2007 No	IPAX Cleanogel, Inc.	The Use of Green Unikleen in Oil Spill Clean-Up, Both on Land and in Water (abstract)	Detroit	MI
2007 Yes	Krische, Michael J.; University of Texas at Austin	Hydrogen-Mediated Carbon-Carbon Bond Formation (summary)	Austin	TX
2007 No	LATA Group, The	New Green Technology for Eliminating Hydrogen Sulfide in Aqueous Systems, Especially Petroleum Industry Systems (abstract)	Ochelata	OK
2007 Yes	Li, Kaichang; Oregon State University; Columbia Forest Products; Hercules Incorporated	Development and Commercial Application of Environmentally Friendly Adhesives for Wood Composites (summary)	Corvallis	OR
2007 No	Maffia, Gennaro J.; Widener University	Application of Collagen Nanofibrils in Green Processing and Synthesis (abstract)	Chester	PA
2007 No	McCullough, Richard D.; Carnegie Mellon University	Regioregular Polythiophenes as a Platform for Organic Photovoltaic Technology (abstract)	Pittsburgh	PA
2007 No	Merck & Co., Inc.	A New, Highly Efficient, Environmentally Responsible Synthesis of Laropiprant (MK-0524) (abstract)	Rahway	NJ
2007 No	Merck & Co., Inc.	Kilogram-Scale Purification of Pharmaceutical Candidates and Intermediates Using Preparative Supercritical Fluid Chromatography (abstract)	Rahway	NJ
2007 No	Momentive Performance Materials Inc.	Commercialization of NXT Z [®] : An Ethanol-Free, Low-VOC, High-Performance Silane for Silica Tires (abstract)	Tarrytown	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Momentive Performance Materials Inc.	Novel Superspreading Siliconized Surfactants (abstract)	Tarrytown	NY
2007 No	MYCELX Technologies Corp.	Novel Device for Removing Mercury from Produced Water and Vapor Streams (abstract)	Gainesville	GA
2007 No	Nalco Company	A New Corrosion Inhibitor Reduces the Environmental Impact of Industrially Treated Water (abstract)	Naperville	IL
2007 No	Nitrate Elimination Co., Inc., The	Greener Chemistry for Nitrate Analysis: Enzymatic Reduction Method (abstract)	Lake Linden	MI
2007 Yes	NovaSterilis, Inc.	Environmentally Benign Medical Sterilization Using Supercritical Carbon Dioxide (summary)	Lansing	NY
2007 No	Osmose, Inc.	MicroPro TM Technology in Wood Preservation (abstract)	Griffin	GA
2007 No	Pantheon Chemical	PreKote® Surface Pretreatment: Replacing Hexavalent Chromium with an Environmentally Safe Solution (abstract)	Phoenix	AZ
2007 No	Pirrung, Michael C.; University of California, Riverside	Environmentally Friendly Isonitrile- Based Syntheses (abstract)	Riverside	CA
2007 No	Procter & Gamble Company, The	Tide Coldwater®: Energy Conservation through Residential Laundering Innovation and Commercialization (abstract)	Cincinnati	ОН
2007 No	Schultz, Tor P.; Nicholas, Darrel D.; Mississippi State University	Enhancing the Efficacy of Totally Organic Wood Preservatives with Low- Cost, Benign Additives (abstract)	Mississippi State	MS
2007 No	Severn Trent Services	Iron Oxide for Arsenic Removal from Drinking Water (abstract)	Fort Washington	PA
2007 No	Soloshonok, Vadim A.; Ueki, Hisanori; The University of Oklahoma	Biomimetic Reductive Processes (abstract)	Norman	OK
2007 No	Stoller Enterprises, Inc.	Alternative to Methyl Bromide to Overcome Nematode Damage to Crops and Concomitantly Enhance Yield, Crop Quality, and Abiotic and Biotic Tolerance (abstract)	Houston	TX
2007 No	Super Trap Inc.	GEL-COR®: A New, Environmentally Compatible, Bullet-Trapping Medium for Small-Arms Firing Ranges (abstract)	Corona	CA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	U.S. Army, U.S. Army Edgewood Chemical Biological Center	Enzyme-Based Technology for Decontaminating Toxic Organophosphorus Compounds (abstract)	Aberdeen Proving Ground	MD
2007 No	U.S. Department of Energy, Argonne National Laboratory	Solventless Process for Making Tackifiers and Adhesives (abstract)	Washington	DC
2007 No	U.S. Department of Energy, Los Alamos National Laboratory	Green Primaries: Environmentally Friendly, Sensitive Explosives (abstract)	Los Alamos	NM
2007 No	U.S. Department of Energy, Los Alamos National Laboratory	Ultrapure Carbon and Carbon–Nitride Nanomaterials Derived from Simple Pyrolyses of Nearly Chock-Full Nitrogen Compounds (abstract)	Los Alamos	NM
2007 No	van Ooij, Wim J.; University of Cincinnati	Novel, One-Step, Chromate-Free Coatings Containing Anticorrosion Pigments to Replace Chromate Pretreatment and Pigments (abstract)	Cincinnati	ОН
2007 No	Velocys Inc.	Olefins by High-Intensity Oxidation (abstract)	Plain City	ОН
2007 No	Zhang, Xumu; The Pennsylvania State University	Practical Asymmetric Catalytic Hydrogenation (abstract)	University Park	PA
2007 No	Zhao, Huimin; van der Donk, Wilfred A.; Metcalf, William W.; University of Illinois	A Novel Phosphite Dehydrogenase Based NAD(P)H Regeneration Technology for Industrial Biocatalysis (abstract)	Urbana	IL
2008 No	Adventus Group, The	EHC TM for a Greener Groundwater Treatment Technology (abstract)	Freeport	IL
2008 No	Arkema Inc.	Replacement of Perfluorinated Alkyl Surfactants with Nonfluorinated Surfactants in Polymer Manufacturing (abstract)	King of Prussia	PA
2008 No	Ashland Inc.	GEOSET NEO®: Low Emission Technology for the Metal Casting Industry (abstract)	Dublin	ОН
2008 No	Ashland Inc.	Reducing the Environmental, Health and Safety Impact of Cooling Water Treatment Programs (abstract)	Boonton	NJ
2008 No	Ashland Inc.	Solventless, Low-Toxicity, Thermosetting Oligomers that Require Only Low Energy to Cure (abstract)	Dublin	ОН
2008 No	ATK Lake City Ammunition Division	P4rimer TM : A Non-Toxic, Heavy- Metal-Free Primer Fueled by Red	Independence	МО

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Phosphorus for Small Arms Cartridges (abstract)		
2008 No	Augustine, Robert L.; Seton Hall University; NutraSweet Corporation, The	Bromine Free, TEMPO Based Catalyst System for the Oxidation of Alcohols (abstract)	South Orange	NJ
2008 Yes	Battelle	Development and Commercialization of Biobased Toners (summary)	Columbus	ОН
2008 No	ChK group, Inc.	Nanophase Mn(VII) Oxide: Synthesis using Green Technology and Applications (abstract)	Plano	TX
2008 No	Codexis, Inc.	Greening Montelukast Manufacture: Replacing a Stoichiometric Chiral Boron Reagent with a Green-by- Design, Economical Biocatalytic Reduction Enabled by Directed Evolution (abstract)	Redwood City	CA
2008 No	Cutting Edge Formulations, Inc.	Nature's Avenger® Organic Herbicide: A Fast-Acting, Highly Effective, Organic Alternative to Synthetic and Natural Herbicides (abstract)	Buford	GA
2008 No	Cytec Industries Inc.	Cytec Innovation Management System: Sustainable Development of New Products (abstract)	West Paterson	NJ
2008 No	Cytec Industries Inc.	Revolutionizing Energy-Curing Resins for Food Packaging Applications (abstract)	West Paterson	NJ
2008 Yes	Dow AgroSciences	Spinetoram: Enhancing a Natural Product for Insect Control (summary)	Indianapolis	IN
2008 No	Dow Chemical Company	Novel Process for Producing Polyols Based on Natural Oils (abstract)	Midland	MI
2008 No	Dow Corning Corporation	Water and Energy Conservation in Denim Finishing (abstract)	Midland	MI
2008 No	DuraBan International, Inc.	Environmentally Friendly Antimicrobial Surface Treatment (abstract)	Buffalo	MN
2008 No	Eastman Chemical Company	IntegRex Technology (abstract)	Kingsport	TN
2008 No	Eli Lilly and Company	A Practical and Green Chemical Strategy for the Manufacture of Neurokinin 1 Antagonist, LY686017 (abstract)	Indianapolis	IN
2008 No	EverNu Technology, LLC	Enabling Technology for Methacrylic Acid Production using Isobutane as the Feedstock (abstract)	Maple Glen	PA

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	EverTech LLC	Everdex-Enhanced Alowood (abstract)	Ferndale	WA
2008 No	G3 Technology Innovations, LLC	Surface Functionalized Nanomaterials: Significantly Reducing Fluorochemicals in Consumer Items (abstract)	Pittsford	NY
2008 No	GlaxoSmithKline	GlaxoSmithKline's Eco-Design Toolkit TM (abstract)	Philadelphia	PA
2008 No	Hach Company	Arsenic-Free SPADNS Chemistry for Fluoride Analysis in Water (abstract)	Loveland	CO
2008 No	Huntsman Corporation	G2 Catalyst for New and Improved SURFONIC® Non-Ionic Surfactants (abstract)	The Woodlands	TX
2008 No	Inland Environmental Resources, Inc.	Environmentally Friendly Antacid Formulations for Wastewater Treatment (abstract)	Pasco	WA
2008 No	International Polyol Chemicals, Inc. (IPCI)	Production of Diverse Industrial Glycols from Renewable Six and Five- Carbon Sugars and Glycerin, the Byproduct of Biodiesel Manufacture (abstract)	Ephrata	WA
2008 No	Jiang, Shaoyi; University of Washington	Development of Environmentally Benign Nonfouling Materials and Coatings for Marine Applications (abstract)	Seattle	WA
2008 No	Johnson & Johnson	Application of Green Chemistry Principles in the Scale-Up of the Darunavir Process (abstract)	New Brunswick	NJ
2008 No	Leadbeater, Nicholas E.; University of Connecticut	Microwave Heating as an Enabling Tool for Greener Synthesis (abstract)	Storrs	CT
2008 No	Lubrizol Corporation, The	Novel Green Chemistries Extend the Useful Life of Automobile Catalytic Converters and Reduce Exhaust Gaseous Emissions (abstract)	Wickliffe	ОН
2008 Yes	Maleczka, Robert E., Jr.; Milton R. Smith, III; Michigan State University	Green Chemistry for Preparing Boronic Esters (summary)	East Lansing	MI
2008 No	MIOX Corporation	On-Site Generation of Mixed Oxidants as a Safe, Green Alternative to Chlorine Gas and Concentrated Bulk Bleach (abstract)	Albuquerque	NM
2008 Yes	Nalco Company	3D TRASAR® Technology (summary)	Naperville	IL
2008 No	NCH Corporation	System for Bioremediation of Effluents (abstract)	Irving	TX

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	Organic Recovery, LLC.	Biochemical Hydrolyzation of Organics in Food Wastes into a Liquid Fertilizer and Soil Amendment (abstract)	Pompano Beach	FL
2008 No	Peng, Xiaogang; University of Arkansas; Nanomaterials and Nanofabrication Laboratories, LLC (NN- Labs)	Doped Semiconductor Nanocrystals as Heavy-Metal-Free Quantum Dots (abstract)	Fayetteville	AR
2008 No	Pfizer, Inc.	Convergent Green Synthesis of Linezolid (Zyvox TM), an Oxazolidinone Antibacterial Agent (abstract)	Kalamazoo	MI
2008 No	Pyrotechnique by Grucci, Inc.	Perchlorate-Free Pyrotechnic Composition for Military Training Munitions (abstract)	Brookhaven	NY
2008 No	Ragauskas, Arthur J.; Georgia Institute of Technology	<u>Developing Lignocellulosic</u> <u>Biorefineries (abstract)</u>	Atlanta	GA
2008 No	Rhein Chemie Corporation	Additives for Optimizing Renewable Resources in the Production of Polyurethane Systems and Plastics (abstract)	Chardon	ОН
2008 No	Roche Carolina Inc.	Scalable Non-Aqueous Process to Prepare Water-Soluble Aminodiol (abstract)	Florence	SC
2008 No	Sepracor, Inc.	Adventures in Green Chemistry (abstract)	Marlborough	MA
2008 Yes	SiGNa Chemistry, Inc.	New Stabilized Alkali Metals for Safer, Sustainable Syntheses (summary)	New York	NY
2008 No	Specialty Fertilizer Products	Biodegradable, Water-Soluble Anionic Polymers, Prepared in an Environmentally Benign Process, Enhance the Efficiency of Phosphorus Use by Plants (abstract)	Belton	МО
2008 No	Tennant Company	ech2o TM - Electrically Charged Water (abstract)	Minneapolis	MN
2008 No	Thames, S. F.; Rawlins, J. W.; The University of Southern Mississippi	Vegetable Oil Based Macromonomers in Emulsion Polymers for High- Performance, Zero-VOC Architectural Coatings (abstract)	Hattiesburg	MS
2008 No	Thermo Fisher Scientific	Green pH Electrodes (abstract)	Beverly	MA
2008 No	Torch Technologies LLC	Manufactured Firelogs Based on Whole Timber (abstract)	Ferndale	WA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	TyraTech, Inc.	Greening Insecticides and Parasiticides (abstract)	San Francisco	CA
2008 No	Wildeman, Thomas; Colorado School of Mines	Passive Treatment of Metal- Contaminated Water (abstract)	Golden	СО
2009 No	$3M^{TM}$	Reformulation of 3M TM Neutral Cleaner and 3M TM General Purpose Cleaner for the 3M TM Twist 'n Fill TM Chemical Management System Reduces Air Pollution and Employee Health Hazards (abstract)	St. Paul	MN
2009 No	American Ordnance LLC	<u>Inert Filler TB-1 (abstract)</u>	Middletown	IA
2009 No	Ashland Hercules Water Technologies	Pulp Mill Defoamers Based on Vegetable Oil (abstract)	Wilmington	DE
2009 No	Ashland Inc.	Water-Based Refractory Coatings with Wet/Dry Color Change Indication (abstract)	Dublin	ОН
2009 No	Bayer MaterialScience LLC	AURA® Infusion Technology: A Green Method to Incorporate Color and Performance Additives (abstract)	Pittsburgh	PA
2009 Yes	CEM Corporation	Innovative Analyzer Tags Proteins for Fast, Accurate Results without Hazardous Chemicals or High Temperatures (summary and podcast)	Matthews	NC
2009 No	Clorox Company, The	GreenWorks TM Natural Cleaners from the Makers of Clorox: Home Cleaning Products (abstract)	Pleasanton	CA
2009 No	Codexis, Inc.	Greening Atorvastatin Manufacture: Replacing a Wasteful, Cryogenic Borohydride Reduction with a Green- by-Design, More Economical Biocatalytic Reduction for a Higher Quality Product (abstract)	Redwood City	CA
2009 No	Davis, James Hillard Jr.; University of South Alabama	Liquid but Nonvolatile Sulfonic Acids and Amines: Greener Chemicals for Greening Processes (abstract)	Mobile	AL
2009 No	Doty Energy	Recycling Carbon Dioxide into Carbon-Neutral Liquid Fuels (abstract)	Columbia	SC
2009 No	Dow Chemical Company, The	Glycerin to Epichlorohydrin Process: How Green is my Epichlorohydrin? (abstract)	Freeport	TX
2009 Yes	Eastman Chemical Company	A Solvent-Free Biocatalytic Process for Cosmetic and Personal Care Ingredients (summary and podcast)	Kingsport	TN

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Ecolab Inc.	Wash 'n Walk TM Floor Care System (abstract)	Inver Grove Heights	MN
2009 No	Eli Lilly and Company	New Manufacturing Route for Arzoxifene Hydrochloride (abstract)	Indianapolis	IN
2009 No	FlyAshDirect Ltd.; Cognis Corporation	Carbon Blocker TM Fly Ash Conditioning Treatment (abstract)	Cincinnati	ОН
2009 No	French Creek Software, Inc	Chemical Treatment Modeling and Optimization Software: The French Creek Software Calculation Engine (abstract)	Kimberton	PA
2009 No	Gill, Raminderjit (Sonam); Alvarez, Jessica; University of California, Santa Barbara	The University of California, Santa Barbara Green Chemistry Initiative (abstract)	Santa Barbara	CA
2009 No	GVD Corporation	Novel Solvent-Free Fluoropolymer Coating Process (abstract)	Cambridge	MA
2009 No	Gyberg, Arlin E., Augsburg College; SarTec Corporation	The Mcgyan Process: A Green Synthetic Route for Biodiesel Production (abstract)	Anoka	MN
2009 No	Henkel Corporation	Aquence® Autodeposition Coating: The Smart Coating Solution (abstract)	Madison Heights	MI
2009 No	Henkel Corporation	Bonderite® TecTalis: Next-Generation Coating (abstract)	Madison Heights	MI
2009 No	Huntsman Advanced Materials Corporation	Manufacturing More Efficient Fuel Cells to Reduce Carbon Dioxide Emissions (abstract)	The Woodlands	TX
2009 No	Ingenuity IEQ, Inc.	Green Chemistry for Energy Conservation and Indoor Environmental Quality (abstract)	Midland	MI
2009 Yes	Matyjaszewski, Krzysztof; Carnegie Mellon University	Atom Transfer Radical Polymerization: Low-impact Polymerization Using a Copper Catalyst and Environmentally Friendly Reducing Agents (summary and podcast)	Pittsburgh	PA
2009 No	Merck & Co., Inc.	Green Chemistry in Action: A Remarkably Efficient and Sustainable Synthesis of the HIV Integrase Inhibitor, Raltegravir TM (abstract)	Rahway	NJ
2009 No	Method Products	Method Smarty Dish for Fish: An Environmentally Responsible and Effective Cleaning Solution: No Phosphates, Acrylates, or Ethylenediaminetetraacetic Acid (abstract)	San Francisco	CA

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Milliken & Company	TractionBack®: Alternative Green Adhesives Solutions for Textile Composites Used in Commercial Buildings (abstract)	Spartanburg	SC
2009 No	Narayan, Ramani; Michigan State University: KTM Industries, Inc.	Biodegradable, Chemically Modified Starch Polymers for Protective Foam Packaging and Insulation Applications (abstract)	East Lansing	MI
2009 No	Ozone International LLC	Cleaning and Disinfecting with Ozone: Making Green Chemistry with WhiteWater TM Ozone (abstract)	Bainbridge Island	WA
2009 No	Plasmatreat North America Inc.; Ford Motor Company	Openair TM Plasma Surface Treatment: Reducing Emissions of Volatile Organic Compounds and Improving Environmentally Sensitive Paint Processes (abstract)	Dearborn	MI
2009 No	PPG Industries, Inc.	Green Logic TM : Chitosan-Enhanced Paint Detackifier (abstract)	Troy	MI
2009 No	PPG Industries, Inc.	Zircobond TM Pretreatment (abstract)	Troy	MI
2009 Yes	Procter & Gamble Company, the; Cook Composites and Polymers Company	Chempol® MPS Resins and Sefose® Sucrose Esters Enable High- Performance Low-VOC Alkyd Paints and Coatings (summary and podcast)	Cincinnati	ОН
2009 No	SABIC Innovative Plastics	Chemical Conversion of Post- Consumer Recycled Polyethylene Terephthalate Waste into Sustainable Valox iQ TM and Xenoy iQ TM Engineering Thermoplastic Products (abstract)	Mount Vernon	IN
2009 No	Schweitzer, Linda; Oakland University; Reed, Robert; University of Missouri; Earth Science Laboratories, Inc.	EarthTec®: Green Water Treatment (abstract)	Rochester	MI
2009 No	Sherwin-Williams Company, The	High-Solids Hybrid Sucrose Ester Polymer Technology (abstract)	Cleveland	ОН
2009 No	STERIS Corporation; Virox Technologies	An Alternative to Aldehyde-Based Liquid Chemical Sterilants and High- Level Disinfectants for Reprocessing Heat-Sensitive, Semi-Critical Medical Instruments (abstract)	Mentor	ОН
2009 No	TDA Research, Inc.; Cytec Industries Inc.	Replacement for Solvent-Based, Chromate-Containing Primer (abstract)	Golden	СО

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	U.S. Department of Energy, Argonne National Laboratory	Diesel DeNO _x Catalyst (abstract)	Argonne	IL
2009 No	U.S. Department of Energy, Argonne National Laboratory	Resin Wafer Technology (abstract)	Argonne	IL
2009 No	VeruTEK Technologies, Inc.	Green Synthesis of Nanometal Catalysts and Plant Surfactant-Based, In Situ Chemical Oxidation for Sustainable Treatment and Remediation (abstract)	Bloomfield	CT
2009 Yes	Virent Energy Systems, Inc.	BioForming® Process: Catalytic Conversion of Plant Sugars into Liquid Hydrocarbon Fuels (summary and podcast)	Madison	WI
2009 No	Water Conservation Technology International, Inc.	Sustainable, Natural Green Chemistry for Cooling Water Treatment (abstract)	Temecula	CA
2009 No	Wender, Paul A.; Stanford University	Green Chemistry through Function- Oriented Synthesis, Step Economy, and Ideal Synthesis (abstract)	Stanford	CA
2009 No	ZeaChem Inc.	Cellulose-Based Fuels and Intermediate Chemicals (abstract)	Lakewood	CO
2009 No	Zep Inc.	Renewable-Resource Industrial Products (abstract)	Atlanta	GA
2010 No	A.S. Trust & Holdings, Inc.	HCR-188C1: A.S. Trust & Holdings, Inc.'s All-New, High-Efficiency Hydrocarbon Refrigerant With No Impact on Global Warming or the Ozone Layer (abstract)	Kaneohe	НІ
2010 No	Advanced Technology Materials, Inc.	RegenSi TM : A Wafer Reclaim Solution with a Low Carbon Footprint that Extends the Life Cycle of Silicon Test Wafers (abstract)	Danbury	CT
2010 No	AkzoNobel Functional Chemicals, LLC	Bipolar Membrane Electrodialysis for Greener Processing of Chelates (abstract)	Chicago	IL
2010 No	APTech Group, Inc.	Safer, Sustainable, Biodegradable, Solid-State Chemistry for Treating Cooling Water Systems (abstract)	Cincinnati	ОН
2010 No	Baker Hughes Incorporated	Highly Water-Dispersed Oilfield Corrosion Inhibitors Eliminate over One Million Pounds of Nonrenewable Solvents Annually (abstract)	Sugar Land	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2010 No	Bayer MaterialScience, LLC	IMPACT Technology: A Greener Polyether Polyol Process (abstract)	South Charleston	WV
2010 No	BCR Environmental LLC; SABIC Innovative Plastics	Recovering and Using a Formerly Incinerated Sodium Nitrite Waste Stream to Disinfect and Stabilize Municipal Biosolids (abstract)	Jacksonville	FL
2010 No	Bend Research Inc.	Spray-Dried Dispersions Based on Hydroxypropyl Methylcellulose Acetate Succinate for Delivery of Low- Solubility Drugs (abstract)	Bend	OR
2010 No	Berry Plastics; Flame Chk Inc.; Chemische Fabrik Budenheim KG	Nonhalogenated Flame Retardant for Use in High-Performance Adhesives and Coatings (abstract)	Bristol	RI
2010 No	BioFuelBox, Inc.	Supercritical—Solid Catalyst Reaction Process for Converting Waste Fats, Oils, and Greases into Premium Biodiesel (abstract)	San Jose	CA
2010 No	Cargill, Incorporated	The Development and Commercialization of a Low-pH, Lactic Acid Process for Renewable Plastics (abstract)	Minnetonka	MN
2010 No	Chemguard Ltd.	Elimination of Perfluorinated Alkyl Surfactants from Fire-Fighting Foams (abstract)	Mansfield	TX
2010 Yes	Clarke	Natular TM Larvicide: Adapting Spinosad for Next-Generation Mosquito Control (summary and podcast)	Roselle	IL
2010 No	Codexis, Inc.	Rapid Enablement of Green Processes for Chiral Alcohols by the Codex TM Panel of Robust, Divergent Evolvants of One Ancestral Ketoreductase (abstract)	Redwood City	CA
2010 No	Cortec Corporation	Corrosion Control with a Greener Pathway (abstract)	St. Paul	MN
2010 No	Cytec Industries Inc.	UV-Curable Pressure Sensitive Adhesive (abstract)	Woodland Park	NJ
2010 No	Dionex Corporation	Accelerated Solvent Extraction with Solvent Saver Mode TM : Reducing Organic Solvent Consumption and Waste in Laboratories (abstract)	Sunnyvale	CA
2010 No	Dow Chemical Company, The	An Innovative Approach to Texturizers without Hydrofluoric Acid or Nitric Acid for Multicrystalline Silicon Photovoltaics (abstract)	Marlborough	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2010 No	Dow Chemical Company, The	Energy Savings from a New Manufacturing Route for Vinyl Methyl Ether (abstract)	Midland	MI
2010 Yes	Dow Chemical Company, The; BASF	Innovative, Environmentally Benign Production of Propylene Oxide via Hydrogen Peroxide (summary and podcast)	Midland	MI
2010 No	E. I. du Pont de Nemours and Company	Cerenol® Polyol Technology Platform for a Sustainable Bio-Based Economy (abstract)	Wilmington	DE
2010 No	Henkel Technologies	A Safer, Environmentally Superior, High-Performance Acid Inhibitor Designed to Protect Metallic Infrastructure during Industrial Cleaning (abstract)	Madison Heights	MI
2010 Yes	Liao, James C.; Easel Biotechnologies, LLC; University of California, Los Angeles	Recycling Carbon Dioxide to Biosynthesize Higher Alcohols (summary and podcast)	Los Angeles	CA
2010 Yes	LS9, Inc.	Microbial Production of Renewable Petroleum TM Fuels and Chemicals (summary and podcast)	South San Francisco	CA
2010 No	MacGillivray, Leonard R.; University of Iowa; University of Iowa Research Foundation	Template-Controlled Reactivity in the Organic Solid State (abstract)	Iowa City	IA
2010 Yes	Merck & Co., Inc.; Codexis, Inc.	Greener Manufacturing of Sitagliptin Enabled by an Evolved Transaminase (summary and podcast)	Rahway	NJ
2010 No	Pennakem LLC	2-Methyltetrahydrofuran: A Green Alternative to Oil Derived Ethers and Chlorinated Solvents (abstract)	Memphis	TN
2010 No	Preventive Technology Inc.	PRE-TEC 3000®: An Environmentally Friendly Wood Treatment (abstract)	Greenville	SC
2010 No	STERIS Corporation	An Environmentally Friendly Alternative for Cleaning Surgical Instruments in Healthcare Facilities (abstract)	Mentor	ОН
2010 No	Sun, Xiuzhi Susan; Kansas State University; SoyResin, LLC	Green Process of Unfolding Soy Protein Polymers for Green Adhesives (abstract)	Manhattan	KS
2010 No	Thermphos USA Corp.	Dequest® PB: Carboxymethyl Inulin, A Versatile Scale Inhibitor from the Roots of Chicory (abstract)	Mechanicsville	· VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2010 No	Troy Corporation	Source Reduction and Sustainability through Use of Mergal® 753 Antimicrobial Preservative (abstract)	Florham Park	NJ
2011 No	Aeroclay, Inc.; Schiraldi, David; Case Western Reserve University	AeroClay®: A Green Aerogel for Industry (abstract)	Solon	ОН
2011 No	BASF Corporation	Green Sense SM Concrete (abstract)	Beachwood	ОН
2011 No	Battelle Memorial Institute	Bio-Derived Green Primary Polyvinyl Chloride Plasticizers with Improved Thermal Stability and Plasticization Efficiency (abstract)	Columbus	ОН
2011 Yes	BioAmber, Inc.	Integrated Production and Downstream Applications of Biobased Succinic Acid (summary and podcast)	Minneapolis	MN
2011 No	Champion Technologies, Inc.	Lysine-Based Phosphonate Scale Inhibitor with Improved Biodegradation and Maintained Performance (abstract)	Houston	TX
2011 No	Chemical Safety Software	Source Reduction through Software Technology (abstract)	Emeryville	CA
2011 No	Commercial Fluid Power LLC	Elimination of Hexavalent Chromium from Hydraulic and Pneumatic Tubing and Bar (abstract)	La Porte	IN
2011 No	Cytec Industries Inc.	iSUSTAIN® Green Chemistry Index Tool for Sustainable Development (abstract)	Woodland Park	NJ
2011 No	Cytec Industries Inc.	Waterborne, Ambient-Cure, Stain- Blocking Primer (abstract)	Woodland Park	NJ
2011 No	Desilube; United Soybean Board	High Performance Soy-Based Metalworking Fluid (abstract)	St. Louis	MO
2011 No	Diversey Inc.	ReNew Air Scrubber Technology (abstract)	Sturtevant	WI
2011 No	Dober Chemical Corporation	A Safer, Less Toxic, Reliable, and Green Water Treatment by Smart Release® Technology (abstract)	Woodridge	IL
2011 No	Earth Friendly Products	Earth Conscious Chemistry: Eliminating 1,4 Dioxane in Cleaning Products (abstract)	Garden Grove	CA
2011 No	Ecolab Inc.	<u>DryExx Conveyor Lubricant Program</u> (abstract)	Eagan	MN
2011 No	Ecolab Inc.	Low-Temperature Cleaning In Place (abstract)	Eagan	MN
2011 No	Eli Lilly and Company	Continuous Processing Enables a Convergent Route to a New Drug	Indianapolis	IN

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Candidate: LY2624803*H3PO4		
		(abstract)		
2011 No	Finn, M. G.; The Scripps Research Institute	Metal Adhesive Polymers from Cu(I)- Catalyzed Azide-Alkyne Cycloaddition: a New Approach to Solder Replacements (abstract)	La Jolla	CA
2011 No	FMC Corporation	VigorOx® Biocide: Advancing Environmentally Responsible Energy Production (abstract)	Philadelphia	PA
2011 No	Foam Supplies, Inc.	Ecomate® Environmentally Benign Blowing Agent for Polyurethane Foams (abstract)	Earth City	МО
2011 No	Fuel Energy Service Corporation	Surachi Fuel Technology (abstract)	Mobile	AL
2011 No	Genencor	Gentle Power Bleach TM : A Revolutionary Enzymatic Textile Bleaching System (abstract)	Palo Alto	CA
2011 No	General Motors	Applying Green Chemistry Principles to Enable Zero-Waste Manufacturing (abstract)	Grand Blanc	MI
2011 Yes	Genomatica	Production of Basic Chemicals from Renewable Feedstocks at Lower Cost (summary and podcast)	San Diego	CA
2011 No	Hach Company	Simplified Total Kjeldahl Nitrogen Method for Wastewater: A Green Alternative to Traditional Kjeldahl Methodology (abstract)	Loveland	СО
2011 No	JEEN International	Polyelectrolytes: Reduce Your Carbon Footprint Using an Eco-Friendly Technology to Disperse Wax in Water without Heat (abstract)	Fairfield	NJ
2011 Yes	Kraton Performance Polymers, Inc.	NEXAR TM Polymer Membrane Technology (summary and podcast)	Houston	TX
2011 Yes	Lipshutz, Bruce H.; University of California, Santa Barbara	Towards Ending Our Dependence on Organic Solvents (summary and podcast)	Santa Barbara	CA
2011 No	L'Oreal USA	Kiehl's "Aloe Vera" Biodegradable Liquid Body Cleanser (abstract)	Clark	NJ
2011 No	Lubrizol Corporation, The	Positive Environmental Impact of Novel Crankcase Lubricant Technology (abstract)	Wickliffe	ОН
2011 No	Natural State Research, Inc.	Conversion of Waste Plastics into Fuel (abstract)	Stamford	CT

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Novozymes North America, Inc.	Enabling a Sustainable Biorefinery with Green Chemistry: Enzymatic Hydrolysis of Lignocellulosic Biomass for the Production of Advanced Biofuels and Renewable Chemicals (abstract)	Franklinton	NC
2011 No	Orono Spectral Solutions	Device and Method for Analyzing Oil and Grease in Wastewaters without Solvent (abstract)	Old Town	ME
2011 No	Pacific Scientific Energetic Materials Co.	New Lead Free Materials for Replacement of Existing Primary Explosives (abstract)	Chandler	AZ
2011 No	Piedmont Biofuels Industrial, LLC	Enzymatic Catalysis for Biodiesel Production (abstract)	Pittsboro	NC
2011 No	Polar Industries, Inc.	Zero-VOC, BioBased HiOmega® Linseed Oil Epoxies, Adhesives, and Alkyd Resins as Replacements for Epichlorohydrin— Epoxy Resins and Other VOC- containing Coatings, Paints, Adhesives, and Epoxies (abstract)	Miami	FL
2011 No	PPG Industries, Inc.	Waterborne Refi nish Coatings Manufacture (abstract)	Strongsville	ОН
2011 No	Rochester Midland Corporation	Enhance O ₂ Soil Remover for Commercial Fryers (abstract)	Rochester	NY
2011 No	Rochester Midland Corporation	PRS Water Damage PreClean: Biological Cleaning for Restoration and Remediation (abstract)	Rochester	NY
2011 No	Savage, Phillip E.; University of Michigan	Terephthalic Acid Synthesis at High Concentrations in High-Temperature Liquid Water (abstract)	Ann Arbor	MI
2011 Yes	Sherwin Williams Company, The	Water-based Acrylic Alkyd Technology (summary and podcast)	Cleveland	ОН
2011 No	Sigma-Aldrich	Green Chemistry Process for the Large- Scale Manufacture of Polyamino Acids (abstract)	•'	МО
2011 No	Solvair LLC	Solvair Cleaning System (abstract)	Naperville	IL
2011 No	Steward Advanced Materials	Development and Commercial Application of SAMMS®: A Novel Compound that Adsorbs and Removes Mercury and Other Toxic Heavy Metals (abstract)	Chattanooga	TN
2011 No	Terrabon, Inc.	Conversion of Municipal Solid Wastes to Drop-In Fuels and Chemicals (abstract)	Houston	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Timber Treatment Technologies, LLC	TimberSIL® (abstract)	Springfield	VA
2011 No	Tower Oil & Technology Co.	Saf-T-Vanish®: A Zero-VOC, Green Replacement for Petroleum Solvent Vanish Oils (abstract)	Chicago	IL
2011 No	van Heiningen, Adriaan; Genco, Joseph; Pendse, Hemant; van Walsum, Peter; University of Maine	Pre-Pulping Extraction of Hardwood Chips to Recover Hemicelluloses as a High-Value Renewable Chemical Feedstock that Reduces Waste and Saves Fossil Fuel (abstract)	Orono	ME
2011 No	WM Barr & Company, Inc.	Klean-Strip® Green TM Safer Paint Thinner (abstract)	Memphis	TN
2012 No	Albemarle Corporation	Concrete-Friendly TM Powdered Active Carbon (C-PAC TM) to Remove Mercury from Flue Gas Safely (abstract)	Baton Rouge	LA
2012 No	Armstrong World Industries, Inc.	BioBased Tile®: A Non-PVC Flooring Made with Rapidly Renewable Resources (abstract)	Lancaster	PA
2012 No	Ashland Performance Materials	Envirez TM Technology: Incorporating Renewable and Recycled Feedstocks into Unsaturated Polyester Resins (abstract)	Dublin	ОН
2012 No	BASF Corporation	Compostable Multilayer Food Packaging (abstract)	Wyandotte	MI
2012 No	Bayer MaterialScience and Bayer AG	One-Component, UV-Curable, Waterborne Polyurethane Coatings (abstract)	Pittsburgh	PA
2012 No	BCD Group-II, Inc.	Producing Chemicals and Carbon from Waste Tires, Plastics, Carpet, and Biomass (abstract)	Cincinnati	ОН
2012 No	Bennett, Jacqueline; State University of New York Oneonta; SUNY Research Foundation	Ethyl L-Lactate as a Tunable Solvent for Greener Synthesis of Diaryl Aldimines (abstract)	Oneonta	NY
2012 No	Blue Marble Biomaterials LLC	Greening the Design of Chemical Production with Microbes (abstract)	Missoula	MT
2012 Yes	Buckman International, Inc.	Enzymes Reduce the Energy and Wood Fiber Required to Manufacture High- Quality Paper and Paperboard (summary and podcast)	Memphis	TN
2012 No	CCP Composites	FIREBLOCK TM Intumescent Resin (abstract)	Kansas City	MO

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2012 Yes	Coates, Geoffrey W.; Cornell University	Synthesizing Biodegradable Polymers from Carbon Dioxide and Carbon MoNOxide (summary and podcast)	Ithaca	NY
2012 Yes	Codexis, Inc.; Yi Tang; University of California, Los Angeles	An Efficient Biocatalytic Process to Manufacture Simvastatin (summary and podcast)	Redwood City	CA
2012 No	Colonial Chemical, Inc.	Suga®Nate: A Safer, Milder, Greener Surfactant (abstract)	South Pittsburg	TN
2012 No	Cooper Power Systems	Vegetable Oil Insulating Fluid for Improved High Voltage Transformer Capability (abstract)	Waukesha	WI
2012 No	CPS Biofuels, Inc.	Glycerol tert-Butyl Ether (GTBE): A Biofuel Additive for Today (abstract)	Virginia Beach	VA
2012 No	Cytec Industries Inc.	Saturated Polyester—Phenolic Resin Systems Eliminate Bisphenol A and Epoxy from Interior Can Coatings for Food Packaging (abstract)	Woodland Park	NJ
2012 Yes	Cytec Industries Inc.	MAX HT® Bayer Sodalite Scale Inhibitor (summary and podcast)	Woodland Park	NJ
2012 No	DuPont Company	Chlorantraniliprole: Increased Food Production, Reduced Risks, More Sustainable Agriculture (abstract)	Wilmington	DE
2012 No	DuPont Company and Butamax TM Advanced BioFuels LLC	Production of Isobutanol from the Synergy between Metabolic and Process Engineering (abstract)	Wilmington	DE
2012 No	e2e Materials, Inc.	Formaldehyde-Free, High-Strength Biocomposites from Sustainable Resources (abstract)	Ithaca	NY
2012 No	Ecology Coatings	Generally Recognized as Safe (GRAS) Coatings (abstract)	Warren	MI
2012 No	Electrovaya Inc.	Zero-Emission Production of the Green Lithium Ion SuperPolymer® Battery (abstract)	Malta	NY
2012 Yes	Elevance Renewable Sciences, Inc.	Using Metathesis Catalysis to Produce High-Performing, Green Specialty Chemicals at Advantageous Costs (summary and podcast)	Woodridge	IL
2012 No	Eli Lilly and Company	Grignards Going Greener by Continuous Processing (abstract)	Indianapolis	IN
2012 No	IBM Corporation	Catalytic Treatment of Hydrogen Peroxide in IBM Semiconductor Wastewater (abstract)	Hopewell Junction	NY
2012 No	IBM Corporation	Elimination of PFOS and PFOA in IBM Semiconductor Manufacturing	Hopewell Junction	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Processes and Development of Photoacid Generators Free of Perfluoroalkyl Sulfonates (abstract)		
2012 No	InfiChem Polymers, LLC	InfiGreen TM Polyols (abstract)	Sterling Heights	MI
2012 No	John, George; The City College of the City University of New York	Sustainable Molecular Design through Biorefineries: Biomass as an Enabling Platform for Safe Oil-Thickening Agents (Amphiphiles) (abstract)	New York	NY
2012 No	Johnson & Johnson Consumer Companies, Inc.; AkzoNobel Surface Chemistry LLC	NATRASURF TM PS-111 Polymeric Surfactant: Achieving Next Generation Mildness in Personal Care Products with a Reduced Environmental Footprint (abstract)	Skillman	NJ
2012 No	Kop-Coat, Inc.	<u>Tru-Core® Protection System for Wood</u> (abstract)	Pittsburg	PA
2012 No	LubriGreen Biosynthetics	Development and Commercialization of Oleic Estolide Esters (abstract)	Irvine	CA
2012 No	Mascal, Mark; University of California, Davis	Chemical Conversion of Biomass into New Generations of Renewable Fuels, Polymers, and Value-Added Products (abstract)	Davis	CA
2012 No	Masterchem Brands	KILZ MAX TM PRIMER-SEALER- STAINBLOCKER: Oil-Based Performance in a Water-Based Formula with Less Environmental Impact (abstract)	Chesterfield	МО
2012 No	NALCO	NALCO's APEX TM Program: Sustainable Technology for Paint Detackification (abstract)	Coraopolis	PA
2012 No	Novomer, Inc.	High-Performance Polyols from CO ₂ at Low Cost (abstract)	Waltham	MA
2012 No	NSR Technologies, Inc.	Electrodialysis and Chromatographic Separation Technology for Chlorine- Free Production of Potassium Hydroxide and Hydrochloric Acid (abstract)	Decatur	IL
2012 No	OPX Biotechnologies, Inc.	Producing Industrial Chemicals by Fermenting Renewable Feedstocks at a Lower Cost (abstract)	Boulder	СО
2012 No	Performance Chemicals, LLC	BURN-OUT TM Durable, Green, Nontoxic Flame Retardant (abstract)	Concord	NH
2012 No	Pfizer	New Green Commercial Biocatalytic Route to Atorvastatin Calcium, the Lipitor API (abstract)	Kalamazoo	MI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2012 No	Plata, Desirée L.; Duke University	Improved Resource Use in Carbon Nanotube Synthesis via Mechanistic Understanding (abstract)	Durham	NC
2012 No		Ethylene: A Feedstock for Fine Chemical Synthesis (abstract)	Columbus	ОН
2012 No	RPS Environmental Solutions, LP	Zero-VOC Cleaning and Remediation Technology (abstract)	Dallas	TX
2012 No	SiGNa Chemistry, Inc.	Sodium Silicide: A New Alkali Metal Derivative for Safe, Sustainable, and On-Demand Generation of Hydrogen (abstract)	New York City	NY
2012 No	Tandus Flooring	Ethos TM Modular Commercial Floor Coverings (abstract)	Dalton	GA
2012 No	U.S. Department of Energy, Pacific Northwest National Laboratory; Archer Daniels Midland Company	Propylene Glycol from Renewable Resources (abstract)	Richland	WA
2012 No	Verdezyne, Inc.	Biobased Adipic Acid for Renewable Nylon and Polyurethane Resins (abstract)	Carlsbad	CA
2012 No	Verenium Corporation	Pyrolase® Cellulase Enzyme Breaker as a Biodegradable Replacement for Corrosive Acids and Oxidizers in Hydraulic Fracturing Operations (abstract)	San Diego	CA
2012 No	VH Biotechnology, Inc.	Bacteriocins: A Green, Antimicrobial Pesticide (abstract)	League City	TX
2012 Yes	Waymouth, Robert M.; Stanford University; Hendrick, James L.; IBM Almaden Research Center	Organic Catalysis: A Broadly Useful Strategy for Green Polymer Chemistry (summary and podcast)	Stanford	CA
2013 No	Advanced Biocatalytics Corporation (ABC)	Changing the Nature of Surfactants: Protein-Surfactant Synergists With Enhanced Cleaning Power and Bioremediation Abilities (abstract)	Irvine	CA
2013 No	AkzoNobel Surface Chemistry, LLC	<u>Hybrid Polymers (abstract)</u>	Chicago	IL
2013 No	AnCatt Inc.	Conductive Polymer Nanodispersion (CPND) and the Environmentally Friendly Heavy-Duty Anti-Corrosion Coating Platform Technology (abstract)	Newark	DE
2013 No	Armstrong World Industries	Breakthrough Coating for Ceiling Tiles (abstract)	Lancaster	PA

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	AstraZeneca and Forest Laboratories	An Order of Magnitude Improvement in Sustainability through Core Application of Green Chemistry Principles: The Process Development of Avibactam (abstract)		
2013 Yes	Cargill, Inc.	Vegetable Oil Dielectric Insulating Fluid for High-Voltage Transformers (summary)	Brookfield	WI
2013 No	Dow Chemical Company, The	INFUSE TM Olefin Block Copolymers (abstract)	Midland	MI
2013 Yes	Dow Chemical Company, The	EVOQUE TM Pre-Composite Polymer Technology (summary)	Midland	MI
2013 No	DSM Biobased Products and BP Biofuels	Sugar to Diesel (Bio-Diesel from Microbial Oil) A Sustainable, Scalable and Affordable Option to Petroleum Diesel (abstract)	Columbia	MD
2013 No	DuPont and Goodyear	An Innovative Cell Factory and Bioprocess for Production of Biolsoprene TM Monomer (abstract)	Palo Alto	CA
2013 Yes	Faraday Technology, Inc.	Functional Chrome Coatings Electrodeposited from a Trivalent Chromium Plating Electrolyte (summary)	Clayton	ОН
2013 No	FRX POLYMERS® Inc.	Polymeric, Non-Halogenated Flame Retardants with Broad Applicability in Multiple Industries (abstract)	Chelmsford	MA
2013 No	GeoTree Technologies, Inc.	GeoSpray TM Geopolymer Mortar System for Structural Rehabilitation of Sewer and Storm Water Infrastructure (abstract)	Lafayette	СО
2013 No	Infinite Enzymes	Infinite Enzymes: Low-Cost, Plant-Based Enzymes for Converting Cellulosic Biomass into Biofuels and Other Biobased Products (abstract)	State University	AR
2013 No	International Products Corporation	Temporary Assembly Lubricants for Rubber and Plastic Articles Using Renewable Oil-in-Water Emulsion Technology (abstract)	Burlington	NJ
2013 Yes	Life Technologies Corporation	Safe, Sustainable Chemistries for the Manufacturing of PCR Reagents (summary)	Austin	TX
2013 No	Lonza, Inc.	Dantogard 2000 Preservative: An Antimicrobial Technology with Reduced Environmental Impact for	Allendale	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	Monsanto and Biosynthetic Technologies	Hydraulic Fracturing of Shale Gas Plays (abstract) Vistive® Gold Soybeans and Biosynthetic Technologies Enable Biodegradable, Non-Toxic, Renewable, and Economical Industrial Bio- Lubricants (abstract)	St. Louis	МО
2013 No	Multi-Chem, A Halliburton Service	The Use of Nitrate and Selected Live Strains of Nitrate Reducing Bacteria to Replace the Use of Biocide in Hydraulic Fracturing Operations (abstract)	Houston	TX
2013 No	Myriant Corporation	Expanding the Renewable Polymers "Tool Kit" with Bio-Succinic Acid (abstract)	Woburn	MA
2013 No	Myriant Corporation	Bio-based Chemicals from Low-cost Lignocellulosic Sugars (abstract)	Woburn	MA
2013 No	Nalco Champion, An Ecolab Company	eVerified ASP560: An Environmentally Friendly Corrosion Inhibitor (abstract)	Sugar Land	TX
2013 No	New Sky Energy, LLC	Sustainable Soda Ash for the Glass Industry (abstract)	Boulder	СО
2013 No	Novozymes	Enzymes for the Production of Economical Sugars: A Linchpin of the Carbohydrate Economy (abstract)	Franklinton	NC
2013 No	Owens Corning	Sustainability and Owens Corning's EcoTouch TM Insulation Conversion (abstract)	Newark	ОН
2013 No	Subramaniam, Bala; University of Kansas	A Greener Hydroformylation Technology (abstract)	Lawrence	KS
2013 No	Systea Scientific, LLC	Easy (1-Reagent) Nitrate Method: A Green Alternative to Traditional USEPA Approved Nitrate Methods (abstract)	Oak Brook	IL
2013 No	Thames, S. F.; Rawlins, J. W.; The University of Southern Mississippi	Formaldehyde-Free Commercial-Grade Particleboards Based Solely on Soybean Protein Adhesive (abstract)	Hattiesburg	MS
2013 No	U.S. Department of Energy, Argonne National Laboratory	Upcycling Process That Converts Unsorted Plastic Waste into Functional Carbon Materials (abstract)	Argonne	IL
2013 No	Virent, Inc.	Converting Plant Sugars into Paraxylene for 100% Renewable, 100% Recyclable Packaging and Fibers (abstract)	Madison	WI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	Washing Systems LLC	Pure Solutions Chemical Line for Laundries (abstract)	Loveland	ОН
2013 Yes	Wool, Richard P.; U Delaware	Sustainable Polymers and Composites: Optimal Design (summary)	Newark	DE
2014 No	ACTA Technology Inc.	A Greener, Safer and More Efficient Antifreeze (abstract)	Boulder	CO
2014 No	Advanced Technology Materials, Inc. (ATMI), an Entegris company	The eVOLV TM System, a Clean, Sustainable Solution to Electronic Waste (abstract)	Danbury	CT
2014 No	AkzoNobel Functional Chemicals, LLC	Improved Performance and HSE Profile of a Novel Stimulation Fluid for Oil and Natural Gas Wells (abstract)	Chicago	IL
2014 Yes	Amyris	Farnesane: a Breakthrough Renewable Hydrocarbon for Use as Diesel and Jet Fuel (summary and podcast)	Emeryville	CA
2014 No	Archroma	Earthcolors Technology (abstract)	Charlotte	NC
2014 No	Arizona Chemical Company, LLC	SYLVAROAD TM RP 1000 Performance Additive: A Sustainable, Pine-Based Additive to Enable High Re-Use of Reclaimed Asphalt Pavement (abstract)	Savannah	GA
2014 No	Atsumi, Shota; University of California, Davis		Davis	CA
2014 No	Bay State Tech, LLC	Consumer Viable and Environmentally Friendly Solvent Replacements Developed From Food Grade Compounds (abstract)	Baltimore	MD
2014 No	Blair, Richard; University of Central Florida, The	The Scalable Production of Edge Functionalized Few Layer Graphene Oxide (abstract)	Orlando	FL
2014 No	Boeing Company, The; Boeing Research & Technology	Boegel Surface Activation Technology Suite (abstract)	Seattle	WA
2014 No	Copperhead Chemical Company Inc.	Novel, Effective, Safe Delivery System for Antimicrobial Agents Derived from Sustainable Vegetable Monoglycerides (abstract)	Tampa	FL
2014 No	Cytec Industries Inc.	Cylinderized Phosphine as Safer, More Environmentally Friendly Alternatives to Traditional Stored Product Fumigants (abstract)	Stamford	СТ
2014 No	Dow Chemical Company, The	Sustainable Microbial Control Treatments for Hydraulic Fracturing (abstract)	Buffalo Grove	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Dow Chemical Company, The	BETAMATE TM and BETAFORCE TM Structural Adhesives Improve Automotive Fuel Efficiency and Emissions (abstract)	Midland	MI
2014 No	Dow Chemical Company, The	FORMASHIELD TM Formaldehyde Abatement Technology (abstract)	Collegeville	PA
2014 No	Dumesic, James A.; University of Wisconsin- Madison	Enzyme-Free Biomass Depolymerization Using GVL (abstract)	Madison	WI
2014 No	E&B Green Solutions	G-Clean® Line of Green Cleaning Products Designed to Clean Hydrocarbons Safely and Effectively (abstract)	Hermosa Beach	CA
2014 No	Ecolab	Environmentally Responsible Spore Control Program Through Effective Cleaning and Sanitizing of Heat Exchange Dairy Process Equipment (abstract)	Eagan	MN
2014 No	Genentech, Inc.	Targeted Chemotherapy for Solid Tumor Cancer Treatment (abstract)	South San Francisco	CA
2014 No	GreenLife Development	Naturama - Oil Surfactant, Green Degreaser and Cleaner (abstract)	Las Vegas	NV
2014 No	Gunasekaran, Sundaram; Yang, Jiang; University of Wisconsin-Madison; LignoCarbon	Green Approaches of Nanocomposite Material Synthesis for Energy Storage, Environmental Surveillance and Sustainable Food Systems (abstract)	Mountain View	CA
2014 No	Merck & Co., Inc.	An Innovative Catalytic Intramolecular Asymmetric Reductive Amination of a Dialkyl Ketone Enables a Highly Efficient, Green Synthesis of Suvorexant (MK-4305) (abstract)	Rahway	NJ
2014 No	Monsanto Company	Bt Technology, Transforming Insect Control (abstract)	St. Louis	МО
2014 No	Musolino, Bryan; University of Tennessee, Knoxville	Ultrasound Induced, Copper Mediated Homo-Coupling Using Polymer Supported Aryltrifluoroborates (abstract)	JBSA-FSH	TX
2014 No	MWV Specialty Chemicals, a division of MeadWestvaco Corporation	Evotherm® Warm Mix Asphalt Technology (abstract)	North Charleston	SC
2014 No	Novinda Corporation	Amended Silicates® HgX (abstract)	Denver	CO
2014 No	PPG Industries, Inc.	Polyethylene Terephthalate (PET) Derived Polymers for Coatings (abstract)	Pittsburgh	PA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Pyun, Jeffrey; Glass, Richard; U of Arizona	Utilization of Elemental Sulfur as a New Chemical Feedstock for Polymeric Materials (abstract)	Tucson	AZ
2014 Yes	QD Vision, Inc.	Greener Quantum Dot Synthesis for Energy Efficient Display and Lighting Products (summary and podcast)	Lexington	MA
2014 Yes	Solazyme, Inc.	<u>Tailored Oils Produced from</u> <u>Microalgal Fermentation (summary and podcast)</u>	South San Francisco	CA
2014 Yes	Solberg Company, The	RE-HEALING TM Foam Concentrates— Effective Halogen-Free Firefighting (summary and podcast)	Green Bay	WI
2014 Yes	Stahl, Shannon S.; University of Wisconsin- Madison	Aerobic Oxidation Methods for Pharmaceutical Synthesis (summary and podcast)	Madison	WI
2014 No	Stepan Company	STEPOSOL® MET-10U. A Bioderived, Nonionic Surfactant Solution for Solvent Replacement: Source Reduction and Inherently Lower Health Hazards in Hard Surface Cleaning and Adhesive / Paint Removal (abstract)	Northfield	IL
2014 No	Terramera, Inc.	CIRKIL Biopesticide (abstract)	Buena Park	CA
2014 No	Washing Systems LLC	Green Detergents for Industrial Laundries (abstract)	Loveland	ОН
2014 No	Wyman, Charles; University of California, Riverside	UCR Co-Solv Technology Achieves Unprecedented Yields of Fuel Precursors from Lignocellulosic Biomass (abstract)	Riverside	CA
2015 No	A S Filtration TM , LLC	Pathex®/PathShield TM Antimicrobial Filter Media for the Control of Bacteria in Stormwater and Industrial Process Waters (abstract)	Hixson	TN
2015 No	Acid-Amine Technologies, Inc. (AAT)	Using Bioethanol as A Raw Material, To Produce: 1. SAFEN: A Low Cost Nematicide And Fungicide, Based on Ethyl Formate, Which Is Generally Regarded as Safe by the FDA, and Which Biodegrades Into Two Naturally Occurring Substances, with No Lasting Detrimental Effects to Air, Soil and Water; and 2. Ethyl Formate in a Second Development as a Suitable Raw Material for Propionic Acid and Acrylate Production (abstract)		NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2015 Yes	Algenol	The Algenol Biofuel Process: Sustainable Production of Ethanol and Green Crude (summary and picture)	Fort Myers	FL
2015 No	Barreto, Reynaldo; Purdue University North Central	Photocatylic Oxidations of Ethers with Visible/Near UV Light and the Development of a Continuous Flow Photoreactor (abstract)	Westville	IN
2015 Yes	Chen, Eugene YX.; Colorado State University	Greener Condensation Reactions for Renewable Chemicals, Liquid Fuels, and Biodegradable Polymers (summary and picture)	Fort Collins	СО
2015 No	Eastman Chemical Company	Eastman Omnia TM Solvent – Changing the Chemistry of Clean. New, Safe, Highly Effective Solvent for Cleaning Applications (abstract)	Kingsport	TN
2015 No	Ecolab	OxyCide TM Daily Disinfectant Cleaner (abstract)	Eagan	MN
2015 No	Ecolab	Environmentally Preferable Biocide For Water Treatment in Hydraulic Fracturing (abstract)	Eagan	MN
2015 No	Green Biologics, Inc. (GBI)	The Reinvention of Biomass Based n-Butanol for the Renewable Chemicals Industry (abstract)	Gahanna	ОН
2015 No	Honeywell International	Low Global Warming, Non-VOC, Zero-ODP Molecule for Energy Efficient Polyurethane Foam Insulation Blowing Agent, Solvents, and Heat Transfer (abstract)	Morristown	NJ
2015 Yes	Hybrid Coating Technologies/Nanotech Industries	Hybrid Non-Isocyanate Polyurethane/Green Polyurethane TM (summary and picture)	Daly City	CA
2015 Yes	LanzaTech Inc.	<u>LanzaTech Gas Fermentation Process</u> (summary and picture)	Skokie	IL
2015 No	Licht, Stuart; George Washington University	A Solar Chemical Process to End Anthropogenic Global Warming: STEP Generation of Energetic Molecules (abstract)	Washington	DC
2015 No	Light Curable Coatings	High Performance Solvent-Free Coating Technology (abstract)	Valley View	ОН
2015 No	Linde North America	Development of Vapormate as a Replacement for Methyl Bromide Fumigants (abstract)	Murray Hill	NJ
2015 No	Modular Genetics, Inc.	Greener Synthesis of Surfactants (abstract)	Cambridge	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2015 No	Phyllom BioProducts	grubGONE!®, beetleGONE!® and boreGONE!®, Biological Insecticides with Low Impact on Humans and the Environment Yet Effective Against Destructive Beetle Pests (abstract)	Oakland	CA
2015 No	PROSOCO, Inc.	PROSOCO R-Guard: High- Performance Phthalate-Free Air and Water Resistive Barrier Sealant and Sealant Coating System (abstract)	Lawrence	KS
2015 Yes	Renmatix	The Plantrose® Process: Supercritical Water as the Economic Enabler of Biobased Industry (summary and picture)	San Francisco	CA
2015 No	Sagamore-Adams Laboratories, LLC	PLATech, Green Chemistry Universal Adhesive-Sealing Technology (abstract)	Chicago	IL
2015 No	Siluria Technologies, Inc.	Cleaner Transportation Fuels and Commodity Chemicals from Methane (abstract)	San Francisco	CA
2015 No	Sirrus, Inc.	1, 1-Disubstituted Alkenes (abstract)	Loveland	ОН
2015 Yes	Soltex (Synthetic Oils and Lubricants of Texas)	A Novel High Efficiency Process for the Manufacture of Highly Reactive Polyisobutylene Using a Fixed Bed Solid State Catalyst Reactor System (summary and picture)	Houston	TX
2015 No	VF Corporation	VF Corporation: CHEM- IQ SM (abstract)	Greensboro	NC
2015 No	Voorhees, Kent; Colorado School of Mines	Bacteriophage-Based Bacterial Identification and Antibiotic Resistance Test (abstract)	Golden	СО
2015 No	ZAPS Technologies, Inc.	An Application of Hybrid Multispectral Analysis; Real-Time Wastewater Process Control (abstract)	Corvallis	OR
2015 No	Zhang, Yi-Heng Percival; Cell Free Bioinnovations Inc	<u>Ultra-High Energy Density Metal-Free</u> <u>Sugar Biobattery (abstract)</u>	Blacksburg	VA
2015 No	Zhang, Yi-Heng Percival; Virginia Tech	High-Yield and High-Purity Hydrogen Production from Carbohydrates via Synthetic Enzymatic Pathways (abstract)	Blacksburg	VA
2016 No	3M	Alternative to Sulfur Hexafluoride Enables up to 99% Greenhouse Gas Emission Reduction (abstract)	St. Paul	MN
2016 No	AECOM	Green Nanotechnology Product and Processes for Cleaning Up	Atlanta	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Contaminated Soil and Groundwater (abstract)		
2016 No	Aequor, Inc.	New Chemical Impedes Biofilm Formation and the Adhesion Of Foulers (abstract)	San Diego	CA
2016 No	Alliance Finishing	Plating on Plastics (abstract)	Oxnard	CA
2016 No	Biosynthetic Technologies	Estolides: A Low-Cost, High- Performance Renewable Fluid Certified for Motor Oil (abstract)	Irvine	CA
2016 No	Bristol-Myers Squibb	Discovery, Development and Implementation of New Chemical Technology toward a Novel Commercial Synthesis for the HIV- Attachment Inhibitor, BMS-663068 (abstract)	New Brunswick	NJ
2016 No	Calgon Carbon Corporation	FLUEPAC® activated carbon products for superior mercury control from flue gas and green re-use of coal combustion residuals (abstract)	Moon Twp	PA
2016 No	Calysta	Disruptive Methantropic Technology for Sustainable Food, Fuel and Products: Green Chemistry Innovation Enabling US Global Competitiveness in Low-Carbon, New Economy (abstract)	Menlo Park	CA
2016 No	Catalytic Innovations, LLC	Catalytic Electrolysis for Renewable Fuel Generation from Organic Waste Water (abstract)	Adamsville	RI
2016 Yes	CB&I Albemarle	AlkyClean® Technology: An Inherently Safer Technology for the Production of Gasoline Alkylate (summary)		TX
2016 Yes	Chirik, Paul J., Princeton University	Catalysis with Earth Abundant Transition Metals (summary)	Princeton	NJ
2016 No	Clean Chemistry, Inc.	PeroxyMAX TM Oxidant Technology for Pollution Prevention in Industrial Sectors (abstract)	Boulder	СО
2016 No	Collaborative Aggregates, LLC	Delta S TM : An Environmentally Benign and Worker Safe Asphalt Rejuvenator (abstract)	Wilmington	MA
2016 No	Compact Membrane Systems, Inc.	Membrane Dehydration for Solvent Recovery and Reuse (abstract)	Newport	DE
2016 No	Covestro LLC	<u>Dream Production – CO₂ as a new</u> <u>building block for high-tech plastics</u> (<u>abstract</u>)	Pittsburgh	PA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 Yes	Dow AgroSciences LLC	Instinct® Technology – Making Nitrogen Fertilizers Work More Effectively for Farmers and the Planet (summary)	Indianapolis	IN
2016 No	Dow Chemical Company, The	Dow Polymeric Flame Retardant (abstract)	Midland	MI
2016 No	Dow Chemical Company, The	SOLDERON TM BP Lead-free Solder Plating Chemistry (abstract)	Marlborough	MA
2016 No	Dow Microbial Control	<u>KathonTM 7 Tl Antimicrobial for Water</u> <u>Treatment Applications (abstract)</u>	Collegeville	PA
2016 No	DuPont	Creation, Integration, and Engineering of the World's Largest Cellulosic Ethanol BioRefinery Production Platform (abstract)	Wilmington	DE
2016 No	Elinor Specialty Coatings; Bierwagen, Gordon; North Dakota State University; Akzo Nobel Aerospace Coatings	Mg rich primer for Chrome free protection of Aluminum and its alloys (abstract)	Fargo	ND
2016 No	Floral Soil LLC	Floral Soil: A Green Chemistry Alternative to Phenol Formaldehyde Foams for Floral & Horticulture Industries (abstract)	Everett	WA
2016 No	Garg, Neil; University of California, Los Angeles	Catalytic Cross-Couplings Using a Sustainable Metal and Green Solvents (abstract)	Los Angeles	CA
2016 No	H-O-H Water Technology, Inc.	Cooling Tower Water Conservation and Chemical Treatment Elimination (abstract)	Palatine	IL
2016 No	Huang, Yu; University of California, Los Angeles	Surface Engineered High-performance Catalysts for Fuel Cell Applications (abstract)	Los Angeles	CA
2016 No	Instrumental Polymer Technologies, LLC	Evolution Polymerization To Produce Sustainable Polycarbonate Dendrimers (abstract)	Westlake Village	CA
2016 No	International Flavors & Fragrances Inc. (IFF)	A Greener Process for the Fragrance Veridian and Development/Implementation of IFF's Green Chemistry Tool (abstract)	Union Beach	NJ
2016 No	ISCA Technologies, Inc.	SPLAT® VERB: An Insecticide-Free, Green Repellent for Bark Beetle Pests of North American Forestry (abstract)	Riverside	CA
2016 No	Kiverdi	Carbon Engineering Platform (abstract)	Hayward	CA
2016 No	Lygos, Inc.	Integrated Production of Sustainable Biobased Malonic Acid for Significant	Emeryville	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Source Pollution Reduction, Cost, and Performance Advantages (abstract)		
2016 No	Marrone Bio Innovations	GRANDEVO® advanced bioinsecticides (abstract)	Davis	CA
2016 No	Marrone Bio Innovations	ZEQUANOX® (abstract)	Davis	CA
2016 No	Meredian Holdings Group (Meredian, Inc. and DaniMer Scientific)	Degradable Polymers for Fracking Applications (abstract)	Bainbridge	GA
2016 No	Midwest Refrigerants, LLC a Missouri Limited Liability Company	The Recovery of Organic Halides from Waste Streams by the Chemical Reaction of Hydrogen and Carbon Dioxide (abstract)	Shoreline	WA
2016 No	Miller, Stephen; U of Florida; U.S. Bioplastics, LLC	Replacing Packaging Plastics with Sustainable Bioplastics from Megacrop Waste (abstract)	Gainesville	FL
2016 Yes	Newlight Technologies, LLC	AirCarbon: Greenhouse Gas Transformed into High-Performance Thermoplastic (summary)	Irvine	CA
2016 No	Niwayama, Satomi; Texas Tech	Highly efficient and practical monohydrolysis of symmetric diesters (abstract)	Lubbock	TX
2016 No	Novvi, LLC (a joint venture of Amyris, Inc. and Cosan S.A. Industria e Comercio)	Renewable Oils for High Performance Lubricants (abstract)	Emeryville	CA
2016 No	Ohio Soybean Council	Bio-Derived Oligomer Technology to Replace Bis Phenol-A (BPA)-Based Thermoset Coatings: A Practical Solution for BPA-Free Metal Can Coatings for Beer, Beverage, and Food Containers (abstract)	Worthington	ОН
2016 No	OMNOVA Solutions Inc.	SunCryl HP 114, an Environmentally Friendly Release Coat (abstract)	Akron	ОН
2016 No	Pfizer	A Green, Energy Efficient, Chemoenzymatic Process to Manufacture Pregabalin (abstract)	San Diego	CA
2016 No	Procter & Gamble Company, and DuPont Company	Cold-Water Enzyme: Reducing the Environmental Footprint of Residential Laundry through Low Temperature Cleaning (abstract)	Palo Alto	CA
2016 No	Rennovia Inc.	Breakthrough Catalyst Technology Enables Cost Competitive Drop-in Bio- Based Nylons and Polyurethanes (abstract)	Santa Clara	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Resinate Materials Group, Inc.	Converting Landfill Wastes to Multi- Functional Green Polyols for Coating Applications (abstract)	Plymouth	MI
2016 No	Rivertop Renewables	Rivertop Renewables - Sugar Oxidation Process (abstract)	Missoula	MT
2016 No	Sabatini, Jesse; US Army Research Laboratory (ARL)	Environmentally Friendly Colored Pyrotechnic Illuminants (abstract)	Aberdeen Proving Ground	MD
2016 No	SiGNa Chemistry, Inc.; Dixie Chemical Company, Inc.	Input and Waste Associated with the Isomerization of Linear Alpha Olefins (abstract)	New York	NY
2016 No	Sun Pharmaceuticals, Inc.	Environmental protection reagents from MSW: one-step quantitative resourcing municipal solid waste (abstract)	San Diego	CA
2016 No	UOP LLC, A Honeywell Company	A Feedstock Flexible Process to produce Diesel and/or Jet Fuel from Renewable Resources (abstract)	Des Plaines	IL
2016 Yes	Verdezyne	Renewable Nylon through Commercialization of BIOLON TM DDDA (summary)	Carlsbad	CA
2016 No	Vestaron Corporation	SPEAR TM Insecticide: First Member of a New Class of Biopesticides which shows Efficacy comparable to Synthetic Insecticides (abstract)	Kalamazoo	MI
2016 No	Virox Technologies Inc.	Accel 5 RTU, an Accelerated Hydrogen Peroxide® (AHP®) based cleaner-disinfectant that provides a sustainable and safer choice for infection prevention and control (abstract)	Oakville	WI
2016 No	Vitaworks, LLC	Atom-Efficient Process for Producing Taurine (abstract)	North Brunswick	NJ

Green Chemistry Program Nomination Table

This table contains information on each unique technology nominated for the Presidential Green Chemistry Challenge from 1996 through 2016. Although EPA has received 1,714 nominations during this period, only 871 unique technologies are represented here because sponsors may nominate a technology more than once.

The columns are:

Year: The year of the most recent nomination for this technology.

Winner: The status of each nomination as an award-winning technology or a nominee.

Nomination Sponsor: The sponsor or sponsors of the nomination; generally, the name of the company, academic researcher (and institution), or other organization that developed the technology.

Nominated Technology Title: The title for the nominated technology as given by the sponsor. Each title is followed by a link to the associated summary page (for award-winning technologies) or abstract (for all other technologies).

City: The city given in the nomination; this is usually the city of the headquarters for a company or primary location of an academic institution, but may be the city of a plant or research facility. In a few cases, the city is that of a consultant who prepared the nomination.

State (St.): The state given in the nomination; as for the city of nomination, this may not represent the headquarters for a company or the primary location of an academic institution.

Also, download similar information about all nominated technologies as either:

- 1. a <u>Presidential Green Chemistry Challenge Nominations (XLS)</u>(2 pp, 3 MB) (Download Excel Viewer) Exit
- 2. a <u>Presidential Green Chemistry Challenge Nominations (CSV)(1 pg, 2 MB)</u>

Nomination Table

Sort alphabetically or by year, use the search function, or both together.

To search, enter at least three characters in the box:

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1996 No	Advanced Micro Devices (AMD)	The Emission Quantification Model (abstract)	Austin	TX
1996 No	Bayer Corporation	Aldimine-Isocyanate Chemistry: a Foundation for Environmentally- Friendly High Solids Coatings (abstract)	Pittsburgh	PA
1996 Yes	Donlar Corporation	Production and Use of Thermal Polyaspartic Acid (summary)	Bedford Park	IL
1996 Yes	Dow Chemical Company, The	100 Percent Carbon Dioxide as a Blowing Agent for the Polystyrene Foam Sheet Packaging Market (summary)	Midland	MI
1996 No	Eastman Chemical Company	Water-Dispersible Sulfopolyester for Reduced VOC Consumer Products (abstract)	Kingsport	TN
1996 No	GE Plastics (General Electric Corporation)	New Catalyst for Producing ULTEM® Thermoplastic Resin (abstract)	Mt. Vernon	IN

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1996 Yes	Holtzapple, Mark; Texas A&M University	Conversion of Waste Biomass to Animal Feed, Chemicals, and Fuels (summary)	College Station	TX
1996 No	Hudlicky, Tomas; University of Florida	Enzyme-Assisted Conversion of Aromatic Substances to Value-Added End Products. Exploration of Potential Routes to Biodegradable Materials and New Pharmaceuticals (abstract)	Gainesville	FL
1996 No	Merck & Co., Inc.	Waste Minimization in the Manufacture of an Antibiotic Produced by Chemical Synthesis (abstract)	Whitehouse Station	NJ
1996 Yes	Monsanto Company	Catalytic Dehydrogenation of Diethanolamine (summary)	St. Louis	MO
1996 No	Recombinant BioCatalysis, Inc. (RBI)	Development of a Biodiversity Search and Enzyme Optimization Technology (abstract)	Sharon Hill	PA
1996 Yes	Rohm and Haas Company	Designing an Environmentally Safe Marine Antifoulant (summary)	Spring House	PA
1996 No	Stanson Corporation	National Conversion to Low Sudsing Hand Dish Detergents for Industrial, Institutional, and Especially Consumer Application (abstract)	S. Kearny	NJ
1996 No	Taylor, Larry T.; Virginia Tech and Virginia Tech Intellectual Properties	A Nontoxic Liquid Metal Composition for Use as a Mercury Substitute (abstract)	Blacksburg	VA
1996 No	Tremco, a BF Goodrich Company	<u>Automotive Windshield Adhesives</u> (abstract)	Akron	ОН
1996 No	U.S. Department of Energy, Los Alamos National Laboratory	A Microwave Oven Dissolution Procedure for a Ten Gram Sample of Soil Requiring Radiochemical Analysis (abstract)	Los Alamos	NM
1996 No	U.S. Department of Energy, Los Alamos National Laboratory; Phillips, Jonathan; Pennsylvania State University	Two-Stage Catalyst for NO _x Reduction, CO Oxidation, and Hydrocarbon Combustion in Oxygen Containing Exhaust Mixtures (abstract)	Washington	DC
1996 No	U.S. Department of Energy, Office of Industrial Technologies Programs	The Alternative Feedstocks and Biological and Chemical Technologies Research Programs (abstract)	Washington	DC
1997 Yes	Albright & Wilson Americas	THPS Biocides: A New Class of Antimicrobial Chemistry (summary)	Ashland	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1997 No	Alliance for Environmental Technology (AET)	The Use of Chlorine Oxide, the Foundation of Elemental Chlorine-Free Bleaching for Pulp and Paper, as a Pollution Prevention Process (abstract)	Washington	DC
1997 No	Altus Biologics Inc.	Cross-Linked Enzyme Crystals (CLECs) as Robust and Broadly Applicable Industrial Catalysts (abstract)	Cambridge	MA
1997 No	American Chemical Corporation	Utilization of High Performance, Environmentally Compliant Chemicals: GREEN LINE Adhesive, Sealant, and Coating Technologies (abstract)	Washington	DC
1997 No	Anderson, Marc A.; University of Wisconsin- Madison	Green Technology for the 21st Century: Microporous Ceramics (abstract)	Madison	WI
1997 No	Benchmark Products, Inc.	Development of a Nickel Brightener Solution (abstract)	Indianapolis	IN
1997 Yes	BHC Company (Hoechst Celanese)	BHC Company Ibuprofen Process (summary)	Dallas	TX
1997 No	Circuit Research Corporation	A Nontoxic, Nonflammable, Aqueous-Based Cleaner/Degreaser and Associated Parts Washing Systems Commonly Employed in the Automotive Repair Industry (abstract)	Delano	MN
1997 Yes	DeSimone, Joseph M.; University of North Carolina at Chapel Hill (UNC) and North Carolina State University (NCSU)	Design and Application of Surfactants for Carbon Dioxide (summary)	Chapel Hill	NC
1997 No	Dow Chemical Company, The	INVERT TM Solvents in Aircraft Paint Stripping (abstract)	Midland	MI
1997 No	Dumesic, James A.; University of Wisconsin- Madison	Rational Design of Catalytic Reactions for Pollution Prevention (abstract)	Madison	WI
1997 No	DuPont Company	The DUCARE 'Zero Effluent' Recycle Chemistry System (abstract)	Wilmington	DE
1997 No	Eastman Chemical Company	Biodegradable Copolyester (abstract)	Kingsport	TN
1997 No	Eastman Chemical Company	Biofiltration Technology (abstract)	Kingsport	TN
1997 No	Eastman Chemical Company	Water-Dispersible Hot-Melt Adhesive Raw Material (abstract)	Kingsport	TN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1997 No	Gross, Richard A.; University of Massachusetts Lowell	Biotechnological Routes to 'Tailored' Polymeric Products of Environmental and Industrial Importance (abstract)	Lowell	MA
1997 No	Hatton, T. Alan; Massachusetts Institute of Technology	Derivatized and Polymeric Solvents for Minimizing Pollution During the Synthesis of Pharmaceuticals (abstract)	Cambridge	MA
1997 No	Henkel Corporation	Alkyl Polyglycoside Surfactants (abstract)	Ambler	PA
1997 No	Hughes Environmental Systems, Inc.	DryWash TM Carbon Dioxide Dry Cleaning Technology (abstract)	El Segundo	CA
1997 No	IBM-Austin	Elimination of Ozone-Depleting Chemicals in the Printed Wire Board and Electronic Assembly and Test Processes (abstract)	Austin	TX
1997 No	IBM-Austin	Innovative Techniques for Chemical and Waste Reductions in the Printed Wire Board Circuitize Process (abstract)	Austin	TX
1997 Yes	Imation TM Corporation	DryView TM Imaging Systems (summary)	Oakdale	MN
1997 No	King, Charles M.; University of Georgia	Biomimetic Transition Metal Complexes for Homogeneous Catalytic Reductive Dechlorination of the PCBs/One-Step Extraction- Detoxification in Subcritical and Supercritical Fluids (abstract)	Athens	GA
1997 No	Klenzoid, Inc.	Zero Discharge System For Cooling Towers (abstract)	Conshohocken	PA
1997 Yes	Legacy Systems, Inc.	Coldstrip TM , A Revolutionary Organic Removal and Wet Cleaning Technology (summary)	Fremont	CA
1997 No	Materials Technology Limited	SuperC TM , The Use of Supercritical Carbon Dioxide (abstract)	Reno	NV
1997 No	Molten Metal Technology, Inc.	Catalytic Extraction Processing (CEP) (abstract)	Waltham	MA
1997 No	Monsanto Company	Roundup Ready TM Technology (abstract)	St. Louis	МО
1997 No	Sandoz Pharmaceutical Corporation	A New Process for the Manufacture of Pharmaceuticals (abstract)	East Hanover	NJ
1997 No	Shaw, Henry; New Jersey Institute of Technology (NJIT)	The Replacement of Hazardous Organic Solvents with Water in the Manufacture of Chemicals and Pharmaceuticals (abstract)	Newark	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1997 No	Technic, Inc.	Noncyanide Silver Electroplating (abstract)	Providence	RI
1997 No	Texaco, Inc.	CleanSystem ³ Gasoline (abstract)	White Plains	NY
1997 No	U.S. Department of Energy, Los Alamos National Laboratory	Application of Green Chemistry Principles to Eliminate Air Pollution From the Mexican Brickmaking Microindustry (abstract)	Los Alamos	CA
1997 No	U.S. Department of Energy, Los Alamos National Laboratory	Solvent Replacement and Improved Selectivity in Asymmetric Catalysis Using Supercritical Carbon Dioxide (abstract)	Los Alamos	NM
1997 No	U.S. Department of Energy, Pacific Northwest National Laboratory	DOE Methods for Evaluating Environmental and Waste Management Samples (abstract)	Richland	WA
1998 No	AlliedSignal Federal Manufacturing and Technologies	Synergy CCS TM Precision Cleaning Solvent: A Government/Industry Solution to a Complex Environmental Problem (abstract)	Kansas City	МО
1998 No	Beckman, Eric J.; University of Pittsburgh	Design of CO ₂ -Soluble Ligands for Affinity Extraction Using CO ₂ (abstract)	Pittsburgh	PA
1998 No	CTS Corporation Resistor Networks	No-Clean Soldering (abstract)	Berne	IN
1998 No	Doherty, Michael F.; Malone, Michael F.; University of Massachusetts, Amherst	Reactive Distillation Technology to Reduce Waste at the Source (abstract)	Amherst	MA
1998 Yes	Draths, Karen M. and Frost, John W.; Michigan State University	Use of Microbes as Environmentally Benign Synthetic Catalysts (summary)	East Lansing	MI
1998 No	DuPont Company	NAFION Membrane Technology (abstract)	Wilmington	DE
1998 No	DuPont Company	The INFINITY Process (abstract)	Wilmington	DE
1998 No	DuPont Polyester	DuPont Petretec(SM) Polyester Regeneration Technology - Making Polyester Evergreen (abstract)	Wilmington	DE
1998 No	E. I. DuPont de Nemours & Co., Inc.	Zero Effluent Photographic Processing in the Printing Industry (abstract)	Wilmington	DE
1998 No	Eastman Kodak Company	Polycarbonate/Polydimethylsiloxane Copolymers for Thermal Print Media (abstract)	Rochester	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	Eastman Kodak Company	Replacement of Methanol Solutions with Aqueous Dispersions in Photographic Coatings (abstract)	Rochester	NY
1998 No	Eli Lilly and Company	Waste Reduction During Development of a New Process for Manufacture of Pharmaceutical Products (abstract)	Indianapolis	IN
1998 Yes	Flexsys America L.P.	Elimination of Chlorine in the Synthesis of 4-Aminodiphenylamine: A New Process That Utilizes Nucleophilic Aromatic Substitution for Hydrogen (summary)	Akron	ОН
1998 No	Govind, Rakesh; University of Cincinnati	Bioconversion of Carbon Dioxide into Organic Feedstocks (abstract)	Cincinnati	ОН
1998 No	Hendrickson, James B.; Brandeis University	The SYNGEN Program for Generation of Alternative Syntheses (abstract)	Waltham	MA
1998 No	Lockheed Martin Tactical Aircraft Systems	Development and Implementation of Low Vapor Pressure Cleaning Solvent Blends (abstract)	Fort Worth	TX
1998 No	Lockheed Martin Tactical Aircraft Systems (LMTAS)	Implementation and Verification of Aqueous Alkaline Cleaners (abstract)	Fort Worth	TX
1998 No	MEMC Electronic Materials, Inc.	Elimination of Ozone-Depleting Chemicals Through the Use of a Water Soluble Adhesive "Green Wax" (abstract)	St. Peters	МО
1998 No	Mobil Technology Company	Production of Cumene with Zeolite CatalystThe Mobil/Badger Cumene Process (abstract)	Paulsboro	NJ
1998 No	NICCA U.S.A., Inc.	Heavy Metals Free, Non-Formaldehyde Fixing Agent for Direct and Fiber Reactive Dyes (abstract)	Fountain Inn	SC
1998 No	Nortel Technology	Molyphos: A Chromate-Free Alternative for Corrosion Protection of Metal Parts (abstract)	Raleigh	NC
1998 No	Pharmacia and Upjohn, Inc.	Environmental Improvements from Redesigning the Commercial Manufacture of Progesterone (abstract)	Kalamazoo	MI
1998 No	Phillips Petroleum Company	Reduced Volatility Alkylation Process (abstract)	Bartlesville	OK
1998 No	Praxair, Inc.	<u>Liquid Oxidation Reactor (LOR)</u> (abstract)	Danbury	CT
1998 Yes	Pyrocool Technologies, Inc.	Technology for the Third Millennium: The Development and Commercial Introduction of an Environmentally	Lynchburg	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	Rochester Midland	Responsible Fire Extinguishment and Cooling Agent (summary) Core Line of Cleaning Products	Rochester	NY
1770 110	Corporation	(abstract) Invention and Commercialization of a New Chemical Family of Insecticides Exemplified by CONFIRM TM Selective		IVI
1998 Yes	Rohm and Haas Company	Caterpillar Control Agent and the Related Selective Insect Control Agents MACH 2 TM and INTREPID TM (summary)	Philadelphia	PA
1998 No	Rybarczyk, James P.; Ball State University	Automobile Industry (abstract)	Muncie	IN
1998 No	Stepan Company	Stepanfoam Water-Blown Polyurethane Foam HCFC-Free, Environmentally Friendly, Rigid Polyurethane Foam (abstract)	Northfield	IL
1998 Yes	Trost, Barry M.; Stanford University	The Development of the Concept of Atom Economy (summary)	Stanford	CA
1998 No	U.S. Department of Agriculture, Agricultural Research Service, Northwest Irrigation and Soils Research Laboratory	Polyacrylamide Technology Reduces Soil Erosion (abstract)	Kimberly	ID
1998 No	U.S. Department of Defense, Office of Munitions; U.S. Department of Energy, Weapons Supported Research; Lawrence Livermore National Laboratory	Environmentally-Driven Preparation of Insensitive Energetic Materials (abstract)	Livermore	CA
1998 Yes	U.S. Department of Energy, Argonne National Laboratory	Novel Membrane-Based Process for Producing Lactate Esters – Nontoxic Replacements for Halogenated and Toxic Solvents (summary)	Argonne	IL
1998 No	U.S. Department of the Navy, Office of Naval Research; U.S. Department of the Navy, Naval Surface Warfare Center; DeSimone, Joseph, University of	Use of Carbon Dioxide as an Alternative Green Solvent for the Synthesis of Energetic Thermoplastic Elastomers (abstract)	Arlingtion	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1998 No	North Carolina; Aerojet Propulsion U.S. Department of the Navy, Office of Naval Research; U.S. Department of the Navy, Naval Surface Warfare Center; U.S. Army Armament Research, Development and Engineering Center; U.S. Department of Energy, Los Alamos National Laboratory; Aerojet	Waste Reduction in the Production of an Energetic Material by Development of an Alternative Synthesis (abstract)	Arlington	VA
1998 No	Union Camp Corporation	C-FREE TM Pulp Ozone Bleaching Project (abstract)	Franklin	VA
1999 No	ABB Power T&D Company Inc.	Fully Biodegradable Vegetable Oil- Based Electrical Insulating Fluid (BIOTEMP TM) (abstract)	Raleigh	NC
1999 No	Akzo Nobel Business Unit Base Chemicals	A Durable Hydrodechlorination Catalyst for Selective Conversion of CCl4 to CHCl3 (abstract)	Dobbs Ferry	NY
1999 No	Akzo Nobel Sub Business Unit Phosphorus Chemicals	Next Generation Fire-Resistant Fluids (abstract)	Dobbs Ferry	NY
1999 No	American Society for Testing & Materials (ASTM)	Analysis of Liquid Hazardous Waste for Heavy Metals by Energy- Dispersive X-ray Fluorescence (EDXRF) Spectrometry (abstract)	West Conshohocken	PA
1999 No	Antia, Jimmy E.; Govind, Rakesh; University of Cincinnati	Novel In-Situ Zeolite Coatings in Monoliths (abstract)	Cincinnati	ОН
1999 No	Beckman, Eric J.; University of Pittsburgh	Metal Extraction and Recovery Using Carbon Dioxide (abstract)	Pittsburgh	PA
1999 Yes	Biofine, Incorporated	Conversion of Low-Cost Biomass Wastes to Levulinic Acid and Derivatives (summary)	Waltham	MA
1999 Yes	Collins, Terry; Carnegie Mellon University	TAM TM Oxidant Activators: General Activation of Hydrogen Peroxide for Green Oxidation Technologies (summary)	Pittsburgh	PA
1999 No	Cussler, E.L.; University of Minnesota	Pollution Preventing Lithographic Inks (abstract)	Minneapolis	MN
1999 Yes	Dow AgroSciences LLC	Spinosad: A New Natural Product for Insect Control (summary)	Indianapolis	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Dow Corning Corporation	New Technology Converts Waste to Valuable Intermediates (abstract)	Carrollton	KY
1999 No	Dow Corning Corporation	Volatile Methyl Siloxanes: Environmentally Sound Solvent Systems (abstract)	Midland	MI
1999 No	DuPont Company	Reduction of Carbon Tetrachloride Emissions at the Source by the Development of a New Catalyst (abstract)	Wilmington	DE
1999 No	Geon Company, The	Increased Utilization of Raw Materials in the Production of Vinyl Chloride Monomer (abstract)	Avon Lake	ОН
1999 No	Harrell, J.W.; Lane, Allan M.; Jefcoat, I.A.; Nikles, David E.; The University of Alabama	Waterborne Coating Formulations for Video Tape Manufacture (abstract)	Tuscaloosa	AL
1999 No	Hauser, Inc.	Paclitaxel Process Improvements (abstract)	Boulder	СО
1999 No	IBM Corporation, T.J. Watson Research Center	Green Card: A Biopolymer-Based and Environmentally Conscious Printed Wiring Board Technology (abstract)	Yorktown Heights	NY
1999 No	Imation Corporation	Imation No Process Plates (abstract)	Oakdale	MN
1999 No	IMC-Agrico Company	AGROTAIN® N-(n-butyl)Thiophosphoric Triamide (abstract)	Bannockburn	IL
1999 No	International Metalizing Corporation	Non Toxic Antifouling (abstract)	Pennsauken	NJ
1999 No	Khalili, Nasrin R.; Arastoopour, Hamid; Walhof, Laura; Illinois Institute of Technology	A Novel Waste Minimization Approach: Production of Carbon-Based Catalyst or Sorbent from Biosolids (abstract)	Chicago	IL
1999 No	Ladisch, Michael R.; Purdue University	Biobased Adsorbents for Desiccant Coolers (abstract)	West Lafayette	IN
1999 Yes	Lilly Research Laboratories	Practical Application of a Biocatalyst in Pharmaceutical Manufacturing (summary)	Indianapolis	IN
1999 No	Lin, Chhiu-Tsu; Northern Illinois University	Chrome-Free Single-Step In-Situ Phosphatizing Coatings (abstract)	DeKalb	IL
1999 No	M.A. Hanna Color - Technical Center	Reducing VOC Emissions by Eliminating Painting and Labeling Operations with a New Color Laser Marking System for Plastic Parts (abstract)	Suwanee	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Mallinckrodt Inc.	The Removal of Oxides of Nitrogen by In Situ Addition of Hydrogen Peroxide to a Metal Dissolving Process (abstract)		MI
1999 No	Mathews, Alexander P.; Kansas State University	Waste Biomass Utilization in the Production of a Biodegradable Road Deicer (abstract)	Manhattan	KS
1999 No	Monsanto Company	Metabolic Engineering of Crops for Commercial Production of Biodegradable Plastics (abstract)	St. Louis	МО
1999 No	Nalco Chemical Company	Nalco Fuel Tech NO _x OUT [®] Process (abstract)	Naperville	IL
1999 No	Nalco Chemical Company	Nalco LAZON Technology (abstract)	Naperville	IL
1999 No	Nalco Chemical Company	Nalco NALMET® Heavy Metal Removal Technology (abstract)	Naperville	IL
1999 Yes	Nalco Chemical Company	The Development and Commercialization of ULTIMER®: The First of a New Family of Water- Soluble Polymer Dispersions (summary)	Naperville	IL
1999 No	Nassaralla, Claudia Lage; Michigan Technological University	Waste Reduction and Recycling of Magnesite-Chrome Refractory into the Steelmaking Process (abstract)	Houghton	MI
1999 No	Novon International	Natural Recycling of Plastics through Chemical and Biological Degradation (abstract)	Tonawanda	NY
1999 No	Paquette, Leo A.; The Ohio State University	Environmental Advantages Offered by Indium-Promoted Carbon-Carbon Bond-Forming Reactions in Water (abstract)	Columbus	ОН
1999 No	Peretti, Steven W.; North Carolina State University	Biosynthetic Production of p- Hydroxybenzoate Improves Regiospecificity and Minimizes Byproduct Generation (abstract)	Raleigh	NC
1999 No	Polaroid Corporation; Warner, John C.; University of Massachusetts Boston	Environmentally Benign Supramolecular Assemblies of Hydroquinones in Polaroid Instant Photography (abstract)	Waltham	MA
1999 No	Radiance Services Company	The Radiance Process: A Quantum Leap in Green Chemistry (abstract)	Bethesda	MD
1999 No	Raghavan, Dharmaraj; Howard University	Design of Rubberized Concrete from Recycled Rubber Tires (abstract)	Washington	DC
1999 No	Raghavan, Dharmaraj; Howard University	Novel Applications of Polymer Composite from Renewable Materials (abstract)	Washington	DC

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Richard H. Fish, Lawrence Berkeley National Laboratory, University of California	Fluorous Biphasic Catalysis: A New Paradigm for the Separation of Homogeneous Catalysts from Their Reaction Substrates and Products, as Demonstrated in Alkane and Alkene Oxidation Chemistry (abstract)	Berkeley	CA
1999 No	Rogers, Robin D.; University of Alabama	Green Separation Science and Technology: Using Environmentally Benign Polymers to Replace VOCs in Industrial Scale Liquid/Liquid or Chromatographic Separations (abstract)	Tuscaloosa	AL
1999 No	Rowe, H. Alan; Norfolk State University	New Reducing Sugar Assay (abstract)	Norfolk	VA
1999 No	SaLUT Inc.	Chemically Modified Crumb Rubber Asphalt (abstract)	McLean	VA
1999 No	Sequa Chemicals, Inc.	Starch Graft Polymers as Phenolic Resin Extenders (abstract)	Chester	SC
1999 No	Singh, Mono M.; Szafran, Zvi; Pike, Ronald M.; Merrimack College	National Microscale Chemistry Center: The Leader in Worldwide Implementation of Microscale Technology (abstract)	North Andover	MA
1999 No	Solutia Inc.	Greenhouse Gases: From Waste to Product (abstract)	St. Louis	MO
1999 No	Solvent Kleene Inc.	Non-Hazardous Degreaser that Degreases as Efficiently as Trichloroethane and Outperforms Aqueous Products (abstract)	Peabody	MA
1999 No	Stepan Company	Stepan Company PA Lites Polyester Polyol (abstract)	Northfield	IL
1999 No	Stewart, Jon D.; University of Florida	Engineered Baker's Yeast as a Means to Incorporate Biocatalysis Early in Process Design: Application to the Asymmetric Baeyer-Villiger Oxidation (abstract)	Gainesville	FL
1999 No	Subramaniam, Bala; University of Kansas	A Novel Solid-Acid Catalyzed 1- Butene/Isobutane Alkylation Process (abstract)	Lawrence	KS
1999 No	Supratech Systems Inc.	Water Washable Flexo Photopolymer Plate "Flexceed" and Washout System (abstract)	Charlotte	NC
1999 No	Synovec, Robert E.; University of Washington	Novel Chemical Analysis Technologies by Water Liquid Chromatography, Raman Spectroscopy, and High Speed Gas Chromatography (abstract)	Seattle	WA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
1999 No	Synthon Corporation	<u>Oevelopment and Commercialization</u> <u>of High-Value Chemical Intermediates</u> <u>From Starch and Lactose. (abstract)</u>	Lansing	MI
1999 No	Tektronix, Inc.	Designing Safer Chemicals: Spitfire Ink (abstract)	Wilsonville	OR
1999 No	Thompson, Stephen; Colorado State University	Small Scale Chemistry: Pollution Prevention in Inorganic Chemistry Instruction Program (abstract)	Fort Collins	СО
1999 No	U.S. Army, U.S. Army Armament Research, Development, & Engineering Center	Use of Solid Catalysts in Pollution Prevention in the Nitration of Aromatic Compounds (abstract)	Picatinny Arsenal	NJ
1999 No	U.S. Department of Energy, Albany Research Center	Chloride Free Processing of Aluminum Scrap (abstract)	Albany	OR
1999 No	U.S. Department of Energy, Pacific Northwest National Laboratory	Biocatalytic and Biomimetic Process for the Synthesis of Nitroaromatic Intermediates and Destruction of Nitrocompounds, Including Explosives (abstract)	Richland	WA
1999 No	U.S. Department of the Treasury, Bureau of Engraving and Printing	ISOMET: Development of an Alternative Solvent (abstract)	Washington	DC
1999 No	Union Carbide Corporation	Splittable Surfactants (abstract)	Danbury	CT
1999 No	United States Postal Service	Environmentally Benign Pressure Sensitive Adhesive Program (abstract)	Washington	DC
1999 No	Varma, Rajender S.; Sam Houston State University	Solvent-Free Chemical Synthesis (abstract)	Huntsville	TX
1999 No	Viasystems Technology Corporation	Solder Waste Reduction Environmental Project (abstract)	Richmond	VA
1999 No	Washington State Department of Ecology	Washington State Pollution Prevention, Health, and Safety Initiative in Academic Chemistry Laboratories (abstract)	Spokane	WA
1999 No	Weimer, Alan W.; University of Colorado	Vibrating Fluidized Bed Combustion Nitridation Processing Using Concentrated Solar Energy (abstract)	Boulder	СО
1999 No	Zyvax Incorporated	The Zyvax "Watershield" Mold Release (abstract)	Boca Raton	FL
2000 No	3M Center	<u>Hydrofluoroethers (HFEs)—The Right</u> <u>Balance of Properties (abstract)</u>	St. Paul	MN
2000 No	Albright & Wilson Americas, Inc.	A New Environmentally Friendly Corrosion Inhibitor (abstract)	Glen Allen	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	AMSOIL Incorporated	Waste Oil Source Reduction Through Extended Oil Service Life (abstract)	Superior	WI
2000 No	Arkenol Holdings, L.L.C.	Sugars from Lignocellulosic Materials for the Production of Bio-Based Fuels and Chemicals (abstract)	Mission Viejo	CA
2000 No	BAT Technologies Inc.	Primer for Anti-Fouling Paint (abstract)	New Rochelle	NY
2000 Yes	Bayer Corporation; Bayer AG (Germany)	Two-Component Waterborne Polyurethane Coatings (summary)	Pittsburgh	PA
2000 No	Beckman, Eric J.; University of Pittsburgh	Catalysts for the Copolymerization of Carbon Dioxide and Cyclic Ethers (abstract)	Pittsburgh	PA
2000 No	Bergbreiter, David E.; Texas A&M University	The Use of Soluble Polymers to Recover Catalysts and to Control Catalytic Reactions (abstract)	College Station	TX
2000 No	BetzDearborn, Inc.	Designing an Environmentally Friendly Copper Corrosion Inhibitor for Cooling Systems (abstract)		PA
2000 No	BIOCORP, Inc.	Biodegradable Thermoplastic Material (Mater-Bi TM) (abstract)	Redondo Beach	CA
2000 No	Brennecke, Joan F.; University of Notre Dame; Beckman, Eric J.; University of Pittsburgh	Ionic Liquid/CO ₂ Biphasic Systems: New Media for Green Processing (abstract)	Notre Dame	IN
2000 No	Center for Forest Products Research, Inc.	Polymers and Plastics from Lignin Biomass (abstract)	Albuquerque	NM
2000 No	CerOx Corporation	The CerOx Process: A Non-Thermal Alternative for Hazardous Waste Destruction (abstract)	Sunnyvale	CA
2000 No	Chemecol, LLC	PVC Alternative Technology (abstract)	Cornelius	NC
2000 No	Ciba Specialty Chemicals Corporation	<u>Ashless Friction Modifier/Antioxidant</u> <u>for Lubricants (abstract)</u>	Tarrytown	NY
2000 No	Ciba Specialty Chemicals Corporation	New Organic Corrosion Inhibitors Help Replace Toxic Heavy Metals and Reduce Solvent Emissions (abstract)	Tarrytown	NY
2000 Yes	Dow AgroSciences LLC	Sentricon TM Termite Colony Elimination System, A New Paradigm for Termite Control (summary)	Indianapolis	IN
2000 No	Eastman Kodak Company	Minimizing Environmental Emissions by Using Different Solvents in Manufacturing Processes (abstract)	Rochester	NY
2000 No	Eka Chemicals, Inc.	SVP-Pure TM ClO ₂ Process Technology (abstract)	Marietta	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	Environmental Technology and Education Center, Inc. (ETEC)	High Energy Efficiency, Environmentally Friendly Refrigerants (abstract)	Albuquerque	NM
2000 No	Freeman, Harold S.; North Carolina State University	Synthetic Dyes Based on Toxicological Considerations (abstract)	Raleigh	NC
2000 No	H and H Associates, Inc.	DUAL-ICE®: A Non-Toxic, Non- Caustic Instant Cold Compress (abstract)	Bena	VA
2000 No	Ho, Nancy W. Y.; Purdue University	Genetic Engineering of Saccharomyces Yeasts for Effective Production of Ethanol and Other Green Chemicals from Renewable Cellulosic Biomass (abstract)	West Lafayette	IN
2000 No	IBM Research Division, Almaden Research Center	The Chemical Kinetics Simulator Program (abstract)	San Jose	CA
2000 No	IonEdge Corporation	Zero-Waste Dry Plating of Cadmium (abstract)	Fort Collins	CO
2000 No	KM Limited Inc.	The PIX Module Software: Combining Life Cycle Assessment with Activity- Based Costing to Reduce Global Environmental Impact and Sustain Industrial Profitability (abstract)	Virginia Beach	VA
2000 No	Knipple, Douglas C.; Cornell University	In Vivo Synthesis of Lepidopteran Pheromone Precursors in Saccharomyces Cereviseae: An Economical Process for the Production of Effective, Nontoxic, Environmentally Safe Insect Control Products (abstract)	Geneva	NY
2000 No	Lubrizol Corporation, The	<u>Durable AMPS® Antimist Polymers for Aqueous Metalworking Fluids</u> (abstract)	Wickliffe	ОН
2000 No	Lynd, Lee R.; Dartmouth College	Overcoming the Recalcitrance of Cellulosic Biomass and Envisioning the Role of Biomass in a Sustainable World (abstract)	Hanover	NH
2000 No	Mallinckrodt Baker Inc.	<u>Hydrogen Sulfide Elimination</u> (abstract)	Phillipsburg	NJ
2000 No	Micell Technologies	The MICARE Liquid CO ₂ Dry Cleaning Process (abstract)	Raleigh	NC
2000 No	Mobil Oil Corporation	Membrane Separation in Solvent Lube Dewaxing (abstract)	Fairfax	VA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2000 No	Morton International, Inc.	(abstract)	Cincinnati	ОН
2000 Yes	RevTech, Inc.	Envirogluv TM : A Technology for Decorating Glass and Ceramicware with Radiation-Curable, Environmentally Compliant Inks (summary)	Edison	NJ
2000 No	Robbat, Jr., Albert; Tufts University	Cheminformatics: Faster, Better, Cheaper Chemical Analysis Software (abstract)	Medford	MA
2000 No	Robbat, Jr., Albert; Tufts University	On-line Detection of Subsurface Pollutants by Thermal Extraction Cone Penetrometry-Thermal Desorption Gas Chromatography/Mass Spectrometry (abstract)	Medford	MA
2000 Yes	Roche Colorado Corporation	An Efficient Process for the Production of Cytovene, a Potent Antiviral Agent (summary)	Boulder	СО
2000 No	Solvox Manufacturing Company	Solvox Special 5501, an Anti- agglomerate and Stickies Neutralizer for the Paper Industry (abstract)	Milwaukee	WI
2000 No	Tanko, James M.; Virginia Polytechnic Institute and State University	Green Chemistry Through the Use of Supercritical Fluids and Free Radicals (abstract)	Blacksburg	VA
2000 No	TechMatch, Incorporated	N-Methylmorpholine-N-Oxide (NMMO): A Novel, Non-toxic, Reusable Solvent for Cellulose as Source Reduction in the Production of Textile Fibers (abstract)	Saint Paul	MN
2000 No	U.S. Army, U.S. Army Edgewood Research, Development, and Engineering Center	Filter Leak Test Using Ozone-Benign Substances (abstract)	Aberdeen Proving Ground	MD
2000 No	U.S. Department of Energy, Argonne National Laboratory	Clean Diesel Breakthrough: Simultaneous Decrease in Emissions of Both Particulates and Oxides of Nitrogen During Combustion (abstract)	Argonne	IL
2000 No	U.S. Environmental Protection Agency, National Risk Management Research Laboratory	Oxygenation of Hydrocarbons by Photocatalysis: A Green Alternative (abstract)	Cincinnati	ОН
2000 Yes	Wong, Chi-Huey; The Scripps Research Institute	Enzymes in Large-Scale Organic Synthesis (summary)	La Jolla	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 No	Anderson Chemical Company	Total Impact Program - An Environmentally Preferable Program for Laundry (abstract)	Litchfield	MN
2001 No	Aspen Systems, Inc.	Genetic Enhancement of an Anti- Freeze Protein (abstract)	Marlboro	MA
2001 Yes	Bayer Corporation; Bayer AG (Germany)	Baypure TM CX (Sodium Iminodisuccinate): An Environmentally Friendly and Readily Biodegradable Chelating Agent (summary)	Pittsburgh	PA
2001 No	Burlington Chemical Company, Inc.	Development of a Practical Model and Process to Systematically Reduce the Environmental Impact of Chemicals Utilized by the Textile and Related Industries (abstract)	Burlington	NC
2001 No	CDTech	A New Process for Producing Dimethyl Carbonate (abstract)	Pasadena	TX
2001 No	ChemNova Technologies, Inc.	Chrome-free Single-step In-situ Phosphatizing Coatings: Anti- fingerprint Coatings on Galvanized Steel (abstract)	DeKalb	IL
2001 No	Clearmate, Inc.	ClearMate (abstract)	Minneapolis	MN
2001 No	DeCopier Technologies, Inc.	Advanced, Ecologically Safe De-inking Technology to Recover High Quality Pulp from Secondary Fibers/or Recyclable Waste (abstract)	Lawrence	MA
2001 No	DuPont Crop Protection	Biocatalytic Production of 5- Cyanovaleramide (abstract)	Wilmington	DE
2001 No	Dynacs Engineering Co., Inc.	Oxidizer Scrubber Project (abstract)	Kennedy Space Center	FL
2001 No	E. I. DuPont de Nemours & Co., Inc.	New Generation Adiponitrile Technology (abstract)	Wilmington	DE
2001 Yes	EDEN Bioscience Corporation	Messenger®: A Green Chemistry Revolution in Plant Production and Food Safety (summary)	Bothell	WA
2001 No	Evergreen Nylon Recycling LLC	Innovative Green Chemistry for Sustainable Manufacture of Caprolactam (abstract)	Augusta	GA
2001 No	Huntsman Polyurethanes	Equipment Flushing Agent for the Polyurethane Industry (abstract)	West Deptford	NJ
2001 No	IBM Burlington (IBM Microelectronics Division)	Solvent Waste Reduction Via An Acetic Acid Bowl Cleaning Process (abstract)	Essex Junction	VT

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 Yes	Li, Chao-Jun; Tulane University	Quasi-Nature Catalysis: Developing Transition Metal Catalysis in Air and Water (summary)	New Orleans	LA
2001 No	Mitzel, Thomas; Trinity College	Formation of Ene-Diyne Molecules Under Indium Mediated Aqueous Barbier-Conditons (abstract)	Hartford	СТ
2001 No	Motorola Corporation; ULVAC Technologies, Inc.	Eliminating Solvents from Silicon Wafer Manufacturing (abstract)	Austin	TX
2001 No	Nextec Applications, Inc.	Solventless Process for Improving Fabric Performance Properties (abstract)	Vista	CA
2001 No	Northrup-Grumman	Non-Destructive Testing of Corrosion Under Coatings (abstract)	Bethpage	NY
2001 Yes	Novozymes North America, Inc.	BioPreparation TM of Cotton Textiles: A Cost-Effective, Environmentally Compatible Preparation Process (summary)	Franklinton	NC
2001 Yes	PPG Industries	Yttrium as a Lead Substitute in Cationic Electrodeposition Coatings (summary)	Pittsburgh	PA
2001 No	PPG Industries, Inc.	Replacement of Asbestos in the Diaphragm Cell Process for Manufacture of Chlorine and Caustic Soda (abstract)	Monroeville	PA
2001 No	QuesTek Innovations, LLC	Computational Design of Corrosion Resistant Steels for Structural Applications In Aircraft (abstract)	Evanston	IL
2001 No	Rochester Midland Corporation	Development of an Effective, Coordinated Family of Safe, Green Cleaning and Maintenance Products (abstract)	Rochester	NY
2001 No	U.S. Air Force, Air Force Research Laboratory	Sol-Gel Technology for Low-VOC, Non-Chromated Adhesive & Sealant Applications (abstract)	Wright Patterson AFB	ОН
2001 No	U.S. Air Force, Air Force Research Laboratory	Replacement Non-Toxic Sealants for Standard Chromated Sealants and Repair (abstract)	Wright Patterson AFB	ОН
2001 No	U.S. Army, TACOM- ARDEC - Picatinny Arsenal, NJ	Primerless RTV Silicone Sealants/Adhesives (abstract)	Picatinny Arsenal	NJ
2001 No	U.S. Army, U.S. Army Armament Research, Development, and Engineering Center	Low VOC Chemical Agent Resistance Coatings (abstract)	Picatinny Arsenal	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2001 No	U.S. Army, U.S. Army Research Laboratory	Non-Polluting Composites Remanufacturing and Repair for Military Applications (abstract)	Aberdeen Proving Ground	MD
2001 No	U.S. Army, U.S. Army Research Laboratory - Aberdeen Proving Ground, MD	Recycling Propellants in Non-Polluting Supercritical Fluids: Novel Computational Chemistry Models for Predicting Effective Solvents (abstract)	Aberdeen Proving Ground	MD
2001 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Environmentally Benign Synthesis of Monoglyceride Mixtures Coupled With Enrichment by Supercritical Fluid Fractionation (abstract)	Peoria	IL
2001 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Vegetable Oil Based Printing Inks and Their Environmental Advantages (abstract)	Peoria	IN
2001 No	U.S. Environmental Protection Agency, National Risk Management Research Laboratory	Paris II Solvent Design Software (abstract)	Cincinnati	ОН
2002 No	AEGEANS, Inc.	<u>Tasphox Water Treatment System</u> (abstract)	Harrisburg	PA
2002 No	Air Products and Chemicals, Inc.	DEOXO-FLUOR TM Reagent (abstract)	Allentown	PA
2002 No	Applied CarboChemicals, Inc.	Bioderived Succinic Acid as a Platform for a Carbohydrate Chemistry (abstract)	Alto	MI
2002 Yes	Beckman, Eric J.; University of Pittsburgh	Design of Non-Fluorous, Highly CO ₂ -Soluble Materials (summary)	Pittsburgh	PA
2002 No	Bristol-Myers Squibb Company	The Process Greenness Scorecard: Design for Environmental Health and Safety Through Green Chemistry (abstract)	New York	NY
2002 Yes	Cargill Dow LLC	NatureWorks TM PLA Process (summary)	Minnetonka	MN
2002 Yes	Chemical Specialties, Inc. (CSI)	ACQ Preserve®: The Environmentally Advanced Wood Preservative (summary)	Charlotte	NC
2002 No	ChitinWorks America; Payne, Gregory F.; University of Maryland Biotechnology Institute	Industry-University-Government Partnership for Converting Regional Wastes into Chemical Products (abstract)	College Park	MD
2002 No	-	An Innovative Replacement for Chromium for Aluminum Coatings (abstract)	New Orleans	LA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	Donohue, Marc; Johns Hopkins University	Supercritical Fluid Spray Application Process for Adhesives and Primers (abstract)	Baltimore	MD
2002 No	Dordick, Jonathan S.; Rensselaer Polytrechnic Institute	Development of Extraordinarily Active Biocatalysts for Highly Selective and Efficient Synthesis of Chemicals and Pharmaceuticals (abstract)	Troy	NY
2002 No	DynynStyl Inc.	EcoFuel - A Safe and Effective Canned Heat Alternative (abstract)	Lake Worth	FL
2002 No	EarthShell Corporation	EarthShell Packaging: Designed with the Environment in Mind (abstract)	Lutherville	MD
2002 No	EPI Environmental Plastics Inc.	Totally Degradable Plastic Additives (TDPA TM) (abstract)	Conroe	TX
2002 No	Evans Cooling Systems, Inc.	The EVANS DE-TOX TM Process for the Detoxification of Ethylene Glycol (abstract)	Sharon	СТ
2002 No	ExxonMobil Chemical	Development of Two Unique Processes for Manufacturing High-Purity Cyclopentane from Dicyclopentadiene (abstract)	Baytown	TX
2002 No	Farris, Richard J.; University of Massachusetts Amherst	Recycling of Cross-Linked Materials Via "High-Pressure High-Temperature Sintering": Redefining Thermosets (abstract)	Amherst	MA
2002 No	GE Plastics	Recovery and Beneficial Use of Sodium Nitrite from a Wastewater Stream (abstract)	Mount Vernon	IN
2002 No	Henkel Surface Technologies	Water-Based Synthesis and Purification of Mannich Base Modified Polyphenols (abstract)	Madison Heights	MI
2002 No	Hill, Craig L.; Emory University; Weinstock, Ira A.; U.S. Department of Agriculture Forest Service, Forest Products Laboratory	Effluent-Free and Selective Delignification Using Only Oxygen and Water (abstract)	Atlanta	GA
2002 No	Hudlicky, Tomas; University of Florida	Tandem Enzymatic-Electrochemical Methods for Green Manufacturing: Efficient Synthesis of Pharmaceuticals from Halogenated Aromatic Waste (abstract)	Gainesville	FL
2002 No	Hybrid Plastics	A Green Revolution with Nanostructured TM Chemicals (abstract)	Fountain Valley	CA
2002 No	Itronics Metallurgical, Inc.	Fertilizer From Photowaste (abstract)	Reno	NV

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	Madison Chemical Company	Cadmium Replacement in Mechanical Coating (abstract)	Madison	IN
2002 No	Mohan, Ram S.; Illinois Wesleyan University	Environmentally Friendly Organic Synthesis Using Bismuth Compounds (abstract)	Bloomington	IL
2002 No	OMNOVA Solutions Inc.	Short Perfluoroalkyl Chain, Polymeric Fluorosurfactants as Wetting, Flow and Leveling Agents for Aqueous Coatings (abstract)	Fairlawn	ОН
2002 No	ONDEO Nalco Company	Nalco ACT – Advanced Condensate Treatment for Boiler Systems (abstract)	Napervile	IL
2002 Yes	Pfizer, Inc.	Green Chemistry in the Redesign of the Sertraline Process (summary)	New London	CT
2002 No	RADTECH International, North America	Eliminating Air Pollution (VOC and HAP) at the Source through the Use of Ultraviolet and Electron Beam Polymerization (abstract)	Bethesda	MD
2002 Yes	SC Fluids, Inc.	SCORR – Supercritical CO ₂ Resist Remover (summary)	Nashua	NH
2002 No	SePRO Corporation	Integrated Methods for the Control of Aquatic Plants (IMCAP TM): Innovative Chemical and Precision Technologies (abstract)	Carmel	IN
2002 No	Sunshine Makers, Inc.	Crystal Simple Green® (abstract)	Huntington Harbour	CA
2002 No	Tempyrox Company, Inc.	World-wide Elimination or Reduction of Solvent and Chemical Cleaning of Laboratory Glassware Using Thermal Pyrolysis-oxidation Chemistry (abstract)	Dallas	TX
2002 No	U.S. Army, U.S. Army Soldier and Biological Chemical Command	Electronic and Photonic Polymers from Biocatalysis (abstract)	Natick	MA
2002 No	U.S. Department of Agriculture, National Center for Agricultural Utilization Research	Environmentally Benign Two-Step Synthesis of Fatty Alcohol Mixtures Using Supercritical Carbon Dioxide (SC-CO ₂) and SC-CO ₂ /Hydrogen Mixtures (abstract)	Peoria	IL
2002 No	U.S. Department of Agriculture, Southern Regional Research Center	Environmentally Benign Antibacterial Agents (abstract)	New Orleans	LA
2002 No	U.S. Department of Energy, Argonne National Laboratory	Autothermal Reforming Catalyst for Fuel Cells (abstract)	Argonne	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2002 No	U.S. Department of Energy, Argonne National Laboratory	Electrometallurgical Treatment of Nuclear Waste (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Argonne National Laboratory	Electrorefining of Spent Nuclear Fuel (abstract)	Argonne	IL
2002 No	U.S. Department of Energy, Los Alamos National Laboratory	Environmentally Benign Enzyme Reactor for Polymer Synthesis (abstract)	Los Alamos	NM
2002 No	U.S. Department of Energy, Pacific Northwest National Laboratory	CSSX Process Demonstration (abstract)	Richland	WA
2002 No	U.S. Navy, U.S. Naval Research Laboratory	Patterned Channel-Constrained Process for Additive Electroless Metal Deposition (abstract)	Washington	DC
2002 No	U.S. Polychemical Corporation	Dispersit TM : A Waterbased Oil Dispersant for Oil Spills in Salt and Fresh Water (abstract)	Chestnut Ridge	NY
2002 No	Young, Ming-Wan; Xanthos, Marino; New Jersey Institute of Technology	Melt Processing for Solvent-Less Manufacture of High Performance Dry Powder Coatings (abstract)	Newark	NJ
2003 No	AC Products	Enviromask - A Zero VOC Method to Aircraft Metal Forming (abstract)	Placentia	CA
2003 Yes	AgraQuest, Inc.	Serenade®: An Effective, Environmentally Friendly Biofungicide (summary)	Davis	CA
2003 No	Allen, Christopher W.; University of Vermont; Peterson, Eric S.; Idaho National Engineering and Environmental Laboratory	Environmentally Benign Preparation and Polymerization of Phosphazene Polymers (abstract)	Burlington	VT
2003 No	Allen, Dianne; University of Massachusetts Amherst	A Novel Additive System for Time- Controlled Degradation of Polypropylene (abstract)	Jamaica Plain	MA
2003 No	Allen, Robert D.; IBM Almaden Research Center; Carbonell, Ruben; North Carolina State University; DeSimone, Joseph M.; University of North Carolina at Chapel Hill; Gleason, Karen K.;	Environmentally Benign Lithography for Semiconductor Manufacturing (abstract)	Chapel Hill	NC

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
	Massachusetts Institute of Technology; Ober, Christopher K.; Cornell University			
2003 No	Buckman Laboratories International, Inc.	Enzymes as an Alternative to Toxic Materials for Treatment of Slime Deposits in the Paper Industry (abstract)	Memphis	TN
2003 No	Crivello, James V.; Rensselaer Polytechnic Institute	Synthesis and Photopolymerization of Monomers Derived from Biorenewable Sources (abstract)	Troy	NY
2003 No	Crompton Corporation	ACRAMITE TM - A New Selective and Safe Miticide (abstract)	Greenwich	CT
2003 No	Deft, Inc.	Zero VOC Protective Coatings for Aerospace Applications (abstract)	Irvine	CA
2003 Yes	DuPont	Microbial Production of 1,3- Propanediol (summary)	Wilmington	DE
2003 No	Epmar Corporation	Kemiko and Sta-Crete Low VOC Architectural Coating (abstract)	Santa Fe Springs	CA
2003 No	Flexabar Corporation	Aquagard Waterbase Antifouling Bottom Boat Paint (abstract)	Lakewood	NJ
2003 Yes	Gross, Richard A.; Polytechnic University	New Options for Mild and Selective Polymerizations Using Lipases (summary)	Brooklyn	NY
2003 No	H2OK Engineering	The Use of Vitamin C To Neutralize Oxidants Such as Chlorine in Drinking Water Which Is Often Discharged to the Environment (abstract)	Mount Vernon	WA
2003 No	Hudlicky, Tomas; University of Florida	<u>Direct Biocatalytic Synthesis of</u> <u>Functionalized Catechols: A Short</u> <u>Route to Combretastatin A-1 (abstract)</u>	Gainesville	FL
2003 No	Kaplan, David L.; Tufts University	Antioxidant-Functionalized Polymers (abstract)	Medford	MA
2003 No	Kraus, George A.; Iowa State University	Photoacylation and Photoalkylation of Quinones (abstract)	Ames	IA
2003 No	Micro Interconnect Technology	An Economically Advantaged, Green Process, for the Fabrication of Printed Circuit Boards (abstract)	Bedford	NH
2003 No	Nicolaou, K.C.; University of California, San Diego	<u>Tandem Reactions, Cascade Sequences</u> <u>and Biomimetic Strategies in Chemical</u> <u>Synthesis (abstract)</u>	La Jolla	CA
2003 No	ONDEO Nalco Company	STABREX® Microorganism Control Chemical: An Environmentally	Naperville	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Sensible Chlorine Alternative for Industrial Water Treatment (abstract)		
2003 No	Periana, Roy Anthony; University of Southern California	Low Temperature, Hydrocarbon Hydroxylation: The Key to Greener, Lower Cost Chemistry for Chemicals, Fuel and Power for the 21st Century (abstract)	Los Angeles	CA
2003 No	Plug Power Inc.	High CO Tolerant Polymer Electrolyte Membrane Fuel Cell Technology (abstract)	Latham	NY
2003 No	RajanBabu, T. V.; Ohio State University	Asymmetric Catalysis in Water: Hydroxyphosphine and Hydroxyphosphinite Ligands for Amino Acid Synthesis (abstract)	Columbus	ОН
2003 Yes	Shaw Industries, Inc.	EcoWorx TM Carpet Tile: A Cradle-to- Cradle Product (summary)	Dalton	GA
2003 No	Shi, Yian; Colorado State University	An Environmentally Benign Asymmetric Epoxidation Me (abstract)	Fort Collins	CO
2003 No	Smart Sonic Corporation	440-R SMT Detergent Hazardous Solvent Alternative for Printed Circuit Board Stencil Cleaning (abstract)	Van Nuys	CA
2003 Yes	Süd-Chemie Inc.	A Wastewater-Free Process for Synthesis of Solid Oxide Catalysts (summary)	Louisville	KY
2003 No	Syngenta Crop Protection, Inc.	Conversion of the Herbicide, Metolachlor, to S-Metolachlor in the U.S. Marketplace (abstract)	Greensboro	NC
2003 No	Treyco Supply, Inc.	Development of a Safer and More Effective Biodegradable Antimicrobial Cleaning Product (abstract)	Wilson	NC
2003 No	U.S. Air Force, Air Force Research Laboratory, Wright Patterson Air Force Base	New, Environmentally Protective Aircraft De-Icing Technology (abstract)	Dayton	ОН
2003 No	Wachs, Israel E.; Lehigh University	Converting Pollution to Profits: Valuable Chemicals & Energy (abstract)	Bethlehem	PA
2003 No	Xerox Corporation	Xerographic Dry Ink Resin Manufacturing Hazard & Emission Reduction (abstract)	Webster	NY
2004 No	Advanced Marine Technologies (AMT) BioProducts Corporation	Reducing Nitrates in Buzzards Bay with the Production of Organic Gem® Fertilizer from New Bedford's Fish Processing Wastes (An SGNB Project) (abstract)	South Dartmouth	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 No	BASF Corporation	All-Acrylic Binders for Low VOC Architectural Coatings (abstract)	Charlotte	NC
2004 No	Beckman, Eric J.; University of Pittsburgh	<u>In-Situ Generation of H2O₂ in CO₂ for Green Oxidations (abstract)</u>	Pittsburgh	PA
2004 No	Bergman, Robert G.; University of California at Berkeley	Developing Highly Efficient C-H Activation of Hydrocarbons (abstract)	Berkeley	CA
2004 No	Bose, Ajay K.; Stevens Institute of Technology	Cost Effective Green Chemistry Approaches to Pharmaceuticals: Microwave Techniques & "Grindstone Chemistry" for Solventless Reactions and Less Pollution (abstract)	Hoboken	NJ
2004 Yes	Bristol-Myers Squibb Company	Development of a Green Synthesis for Taxol® Manufacture via Plant Cell Fermentation and Extraction (summary)	New York	NY
2004 Yes	Buckman Laboratories International, Inc.	Optimyze [®] : A New Enzyme Technology to Improve Paper Recycling (summary)	Memphis	TN
2004 No	C.H. Thompson Co. Inc.	Non Chromate Chemical Conversion Alternative Coating (abstract)	Binghamton	NY
2004 No	Cargill, Inc.	BioTrans® 1000 Soybean-Based Transformer Fluid (abstract)	Wayzata	MN
2004 No	Dionysiou, Dionysios D.; University of Cincinnati	Water Immiscible Room Temperature Ionic Liquids as Green Solvents for Extraction and In-Situ Photolytic Destruction of Environmental Organic Contaminants (abstract)	Cincinnati	ОН
2004 No	Dow Chemical Company, The	n-Alkyl Propionate Ester Solvents (abstract)	Midland	MI
2004 Yes	Eckert, Charles A.; Liotta, Charles L.; Georgia Institute of Technology	Benign Tunable Solvents Coupling Reaction and Separation Processes (summary)	Atlanta	GA
2004 No	Emisphere Technologies, Inc.	Environmental Advantages Offered by Boric Acid Mediated Amidation Between a Carboxylic Acid and an Amine to Form a Carboxamide, a Basic Unit of Peptides and Proteins (abstract)	Tarrytown	NY
2004 Yes	Engelhard Corporation	Engelhard Rightfit TM Organic Pigments: Environmental Impact, Performance, and Value (summary)	Iselin	NJ
2004 No	Environmentally Sensitive Solutions, Inc.	<u>Utilization of Neutral Cleaners for</u> <u>Reducing Environmental and Health</u> <u>Impacts (abstract)</u>	Mequon	WI

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 No	Ethyl Petroleum Additives Inc.	Metal, Phenol and Ash-Free Antiwear Hydraulic Additive Providing Performance Previously Only Achieved by Use of Zinc Containing Additives (abstract)	Richmond	VA
2004 No	Folia, Inc.	Reactin Series TM AS Copolymers: <u>Specialty Reactive Aspartic Acid</u> <u>Copolymers (abstract)</u>	Birmingham	AL
2004 No	Goodyear Tire & Rubber Company, The	RPS Technology: Breakthrough Technology for Water-Based Paints, Coatings, Adhesives and Sealants (abstract)	Akron	ОН
2004 No	Janda, Kim D.; Lerner, Richard A.; The Scripps Research Institute	Antibody Catalysis (abstract)	La Jolla	CA
2004 No	Janssen Pharmaceutica Inc.	ECONEA® 028: Designing and Developing a Metal-Free, Environmentally Safe, and Effective Antifoulant for Use Against Hard Fouling Marine Organisms (abstract)	Titusville	NJ
2004 Yes	Jeneil Biosurfactant Company	Rhamnolipid Biosurfactant: A Natural, Low-Toxicity Alternative to Synthetic Surfactants (summary)	Saukville	WI
2004 No	Knockout Group, The	"Knockout": A Dynamic Cleaning Experience, In a Colloidal Format, With Pollution Prevention Qualities (abstract)	Chicago	IL
2004 No	LCP Tech Holdings LLC	Development of Novel Liquid Crystal Polymers (abstract)	Cincinnati	ОН
2004 No	Li, Chao-Jun; Tulane University	Developing Direct Catalytic Addition of Alkynes to Aldehydes and Imines in Water and under Solventless Conditions (abstract)	New Orleans	LA
2004 No	PanTerra Technologies, Incorporated	Reducing Domestic Petroleum Consumption by Twenty-five Percent (abstract)	Goshen	СТ
2004 No	Plug Power Inc.	Demonstration of a Home Energy Station for Production of Electricity, Heat, and Hydrogen (abstract)	Latham	NY
2004 No	Plug Power Inc.	Zero-to-Landfill Fuel Cell Systems (abstract)	Latham	NY
2004 No	PPG Architectural Finishes, Inc.	Pure Performance "Zero" VOC Latex Coating (abstract)	Pittsburgh	PA
2004 No	ProChemTech International, Inc.	ElectroBrom Biocide System (abstract)	Brockway	PA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2004 No	Ragauskas, A.J.; Georgia Institute of Technology	Mill Designed Biobleaching Technologies (abstract)	Atlanta	GA
2004 No	RD Chemical Company	<u>ChemBondTM EC An Alternate Printed</u> <u>Circuit Board Oxide Process (abstract)</u>	Mountain View	CA
2004 No	Sahinidis, Nikolaos V.; University of Illinois at Urbana	A Systematic Methodology for the Design and Identification of Environmentally Benign Chemicals (abstract)	Urbana	IL
2004 No	Sheth, Atul C.; University of Tennessee Space Institute	From Waste-to-Energy: Catalytic Steam Gasification of Poultry Litter (abstract)	Tullahoma	TN
2004 No	U.S. Department of Energy, Los Alamos National Laboratory	Formamide Replacement in Genetic Sequencing (abstract)	Los Alamos	NM
2004 No	Ulano Corporation	Waste Minimization and Pollution Prevention Programs for the Production of Films & Chemicals in the Graphic Arts Industry (abstract)	Brooklyn	NY
2004 No	Uniseal Inc.	Elimination of Trichloroethylene, a Hazardous Air Pollutant (HAP), From A Production Process (abstract)	Evansville	IN
2004 No	Zeller International	Aqua Form TM , a water based, odorless, non-emissive, non-styrenated bonding/laminating resin for structural/advanced composites (abstract)	Downsville	NY
2005 No	Afton Chemical Corporation	Metal-, Phenol-, and Ash-Free Antiwear Hydraulic Additive: Providing Performance Previously Only Achieved by Use of Zinc- Containing Additives (abstract)	Richmond	VA
2005 No	Air Products Polymers, L.P.	Airflex® EF811 Vinyl Acetate Ethylene (VAE) Emulsion Polymer: A Binder for Environmentally Friendly, High-Performance, Cost-Effective Architectural Coatings (abstract)	Allentown	PA
2005 Yes	Archer Daniels Midland Company	Archer RC TM : A Nonvolatile, Reactive Coalescent for the Reduction of VOCs in Latex Paints (summary)	Decatur	IL
2005 Yes	Archer Daniels Midland Company; Novozymes	NovaLipid TM : Low <i>Trans</i> Fats and Oils Produced by Enzymatic Interesterification of Vegetable Oils Using Lipozyme [®] (summary)	Decatur	IL
2005 No	Atmospheric Glow Technologies, Inc.	Sterilization of Medical Devices with Atmospheric Plasma (abstract)	KNO _x ville	TN

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 Yes	BASF Corporation	A UV-Curable, One-Component, Low- VOC Refinish Primer: Driving Eco- Efficiency Improvements (summary)	Whitehouse	ОН
2005 No	Beckman, Eric J.; University of Pittsburgh	N-Vinyl Formamide: The "Greening" of a Green Replacement for Acrylamide (abstract)	Pittsburgh	PA
2005 No	Bose, Ajay K.; Stevens Institute of Technology	<u>Unconventional High-Efficiency Green</u> <u>Synthesis (abstract)</u>	Hoboken	NJ
2005 No	Chemical Compliance Systems, Inc.	Green Product and Munitions Compliance Analytical Systems (abstract)	Lake Hopatcong	NJ
2005 No	Cholli, Ashok L.; University of Massachusetts Lowell	Biocatalytically Synthesized High- Performance Novel Antioxidants for Materials (abstract)	Lowell	MA
2005 No	Cleary Chemical Corporation	ROACH TERMINAL TM Insect Control: A Non-toxic Alternative that Prevents the Development of Pest Cockroach Populations (abstract)	Dayton	NJ
2005 No	Crane & Company, Inc.	Substitution with Carbon Dioxide Eliminates Major Use of Sulfuric Acid (abstract)	Dalton	MA
2005 No	DeSimone, Joseph M.; University of North Carolina at Chapel Hill	Surfactant-Free Supercritical Carbon Dioxide Fluoroolefin Polymerization Technology (abstract)	Chapel Hill	NC
2005 No	Dow BioProducts Ltd.	WOODSTALK TM Strawboard (abstract)	Midland	MI
2005 No	Dow Chemical Company, The	VORANOL* VORACTIV* Polyols for Flexible Polyurethane Foams (abstract)	Midland	MI
2005 No	Ecolab	Formula 1 TM Laundry System (abstract)	Inver Grove Heights	MN
2005 No	Eli Lilly and Company	An Improved Approach to the Preparation of Duloxetine and Atomoxetine (abstract)	Lafayette	IN
2005 No	GlaxoSmithKline	Discovery and Development of a Green Process for Radafaxine (abstract)	Philadelphia	PA
2005 No	Harris Labs	Evapo-Rust TM : Nonhazardous Rust Removal by Selective Chelation (abstract)	Springdale	AR
2005 No	Highland Supply Corporation	Using Chemistry and Engineering Technology to Reduce Volatile Organic Compound (VOC) Emissions and Eliminate Hazardous Process Waste in the Printing Industry (abstract)	Highland	IL

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2005 No	International Chemical Products, Inc. (ICP)	PICKLEX®: An Environmentally Safe Metal Surface Preparation and Pretreatment Chemical (abstract)	Huntsville	AL
2005 No	Lonza, Inc.	Equinox TM : A Greener Approach to Microbiological Control (abstract)	Fair Lawn	NJ
2005 No	MacRitchie, Finlay; Kansas State University	The Application of Ultrasound to Catalyze Reactions in Some Industrial Processes (abstract)	Manhattan	KS
2005 Yes	Merck & Co.	A Redesigned, Efficient Synthesis of Aprepitant, the Active Ingredient in Emend®: A New Therapy for Chemotherapy-Induced Emesis (summary)	Rahway	NJ
2005 Yes	Metabolix, Inc.	Producing Nature's Plastics Using Biotechnology (summary)	Cambridge	MA
2005 No	METSS Corporation	Environmentally Friendly Aircraft Deicing Fluid (abstract)	Westerville	ОН
2005 No	Microcide, Inc.	Technology of Safe, Biodegradable, and Non-Polluting Products as Alternatives to Toxic Microbicidal Chemicals (abstract)	Troy	MI
2005 No	Novartis Pharmaceuticals Corporation	Development of Green and Practical Processes Utilizing Dialkyl Carbonates as Alkylating Reagents (abstract)	East Hanover	NJ
2005 No	Pfizer Global Research and Development	A Green Process for the Synthesis of Quinapril Hydrochloride (abstract)	New London	CT
2005 No	Pfizer Global Research and Development	Separation of Racemic Tetralone (abstract)	New London	CT
2005 No	Pfizer Global Research and Development	The Discovery and Development of an Environmentally Benign Commercial Route to Sildenafil Citrate (abstract)	New London	СТ
2005 Yes	Rogers, Robin D.; University of Alabama	A Platform Strategy Using Ionic Liquids to Dissolve and Process Cellulose for Advanced New Materials (summary)	Tuscaloosa	AL
2005 No	Rynex Holdings, Ltd.	RYNEX® Dry Cleaning Solution (abstract)	Woodbury	NY
2005 No	Severtson, Steven J.; University of Minnesota	Research, Development, and Commercialization of Environmentally Benign Thermoplastic Pressure- Sensitive Adhesive Label Products (abstract)	St. Paul	MN
2005 No	Stoller Enterprises, Inc.	Stoller STIMULATE: A Natural Product for Improving Crop Plant	Houston	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Performance and Enhancing Pest Resistance (abstract)		
2005 No	U.S. Army, U.S. Army Engineer Research and Development Center	Environmentally Friendly Water Treatments for Control of Corrosion, Scale, and Bioactivity in Heating and Cooling Systems (abstract)	Champaign	IL
2005 No	U.S. Army, U.S. Army Engineer Research and Development Center	Mold Prevention through the Novel Use of In Situ Electrochemistry to Eliminate Water Seepage in Concrete Structures (abstract)	Champaign	IL
2005 No	Westech Aerosol Corporation	WT-HSC13: A High-Strength, Low- VOC Aerosol Adhesive (abstract)	Port Orchard	WA
2006 No	ArchAngel Enterprises, LLC	Stalosan F Microbial and Environmental Control for Use in Housing of All Animals (abstract)	Cedar Rapids	IA
2006 Yes	Arkon Consultants and NuPro Technologies, Inc.	Environmentally Safe Solvents and Reclamation in the Flexographic Printing Industry (summary)	Winston Salem	NC
2006 No	Broin and Associates	BFRAC TM and BPX TM : Launching the Biorefining Revolution (abstract)	Sioux Falls	SD
2006 No	Bunge North America; Novozymes North America, Inc.	Enzymatic Degumming of Vegetable Oils: Reducing Environmental Impact and Improving Oil Yield (abstract)	Saint Louis	МО
2006 No	Coastwide Laboratories	Sustainable Earth® Cleaning Products Designed for Health and the Environment (abstract)	Wilsonville	OR
2006 Yes	Codexis, Inc.	Directed Evolution of Three Biocatalysts to Produce the Key Chiral Building Block for Atorvastatin, the Active Ingredient in Lipitor® (summary)	Redwood City	CA
2006 No	Diwekar, Urmila; University of Illinois at Chicago	Greener by Design: An Efficient, Multiobjective Framework Under Uncertainty (abstract)	Chicago	IL
2006 No	Dow AgroSciences LLC	Aminopyralid: Increasing Protection of Endangered Species through Improved Management of Non-Native Plants While Maximizing Land Use and Significantly Reducing Herbicide Volume and Application (abstract)	Indianapolis	IN
2006 No	Dow AgroSciences LLC; U.S. Department of Agriculture, Agricultural Research Service	GF-120 TM NF Naturalyte TM Fruit Fly Bait (abstract)	Indianapolis	IN

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	DuPont Company	Bioderived Solvents, Surfactants, Fuel Additives, and Monomers (abstract)	Wilmington	DE
2006 No	DuPont Company	New Asymmetric Hydroxylation Technology for the Commercial Manufacture of Indoxacarb (abstract)	Wilmington	DE
2006 No	Duraflame, Inc.	<u>Duraflame[®] All-Natural Manufactured</u> <u>Firelog (abstract)</u>	Stockton	CA
2006 No	FluidPhase Technologies Inc.	A Preproduction System for Re- Refining Used Oil Using Closed-Loop, Patented, Atomization Technology (abstract)	Pittsburgh	PA
2006 No	Foster-Miller, Inc.	Environmentally Advantaged Formulations for Aircraft Ice Control (abstract)	Waltham	MA
2006 No	Garcia-Garibay, Miguel A.; University of California, Los Angeles	Solvent-Free, Crystal-to-Crystal Photochemical Reactions: The Synthesis of Adjacent Stereogenic Quaternary Centers (abstract)	Los Angeles	CA
2006 No	GE Plastics	Flexible NORYL* Resins for Wire Coating (abstract)	Selkirk	NY
2006 No	Go-Tec, Inc.	Acetylene: A Viable Fuel Alternative for the Internal Combustion Engine (abstract)	Columbia	МО
2006 No	GreenEarth® Cleaning, LLC	GreenEarth® Cleaning, Dry Cleaning with Silicone Solvent (abstract)	Kansas City	MO
2006 No	Halliburton Energy Services	ACCOLADE TM Synthetic-Based Drilling Fluid System (abstract)	Houston	TX
2006 No	HALOX	New Water-Based Organic Corrosion Inhibitor (abstract)	Hammond	IN
2006 No	Innovative Formulation Company	Ecological Paint Antimicrobial Clear Coat (abstract)	Tucson	AZ
2006 No	Interface Fabrics	Closing the Loop with "Benign by Design" Biobased Fabrics and Backings (abstract)	Grand Rapids	MI
2006 No	iSoy Technologies Corporation	Biocatalytic Production of Biobased Personal Care Products (abstract) JONCRYL® FLX 5000: A High-	Trout Valley	IL
2006 No	Johnson Polymer, LLC	Performance, Water-Based Polymer to Facilitate the Conversion from Solvent- to Water-Based Inks in Surface Film Flexible Packaging Printing (abstract)	Sturtevant	WI
2006 No	JohnsonDiversey, Inc.	A Novel Cleaning System Using Less Toxic, Safer Chemicals (abstract)	Sturtevant	WI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 No	LANXESS Corporation	Picaridin: A Safe, Effective, and Environmentally Friendly Insect Repellent that People Will Use (abstract)	Pittsburgh	PA
2006 Yes	Merck & Co., Inc.	Novel Green Synthesis for β-Amino Acids Produces the Active Ingredient in Januvia TM (summary)	Rahway	NJ
2006 No	MLI Associates	Environmentally Benign Deicing/Anti- Icing Agents (abstract)	Shoreham	NY
2006 No	Montana Polysaccharides Corporation	Multipurpose Exopolymer as a Raw Material (abstract)	Rock Hill	SC
2006 No	Netravali, Anil N.; Cornell University	Green Composites: Environment- Friendly and Fully Sustainable (abstract)	Ithaca	NY
2006 No	Nike, Inc.	Development of Nike Brand Footwear Outsole Rubber as Environmentally Preferred Material (abstract)	Beaverton	OR
2006 No	Pfizer Global Research and Development	Green Chemistry in the Redesign of the Celecoxib Process (abstract)	New London	CT
2006 No	PostSaver USA	PostSaver® (abstract)	Memphis	TN
2006 No	Praxair, Inc.	Oxygen-Enhanced Combustion for NO _x Control (abstract)	Tonawanda	NY
2006 No	Recovery Systems Inc.	Innovative Process for Treatment of Hog Waste and Production of Saleable Products from This Waste (abstract)	Wilmington	NC
2006 No	Rhodia Inc.	Guar-Based Chemistry Advances Targeted Performance of Crop Sprays by Reducing Drift and Improving Retention (abstract)	Cranbury	NJ
2006 No	Rohm and Haas Company; Johns Manville	Invention and Commercialization of Environmentally Smart Thermosetting Binders (abstract)	Philadelphia	PA
2006 No	Rust-Oleum Corporation	Zero-VOC, Zero-HAP, No-Odor Industrial Coatings (abstract)	Vernon Hills	IL
2006 Yes	S.C. Johnson & Son, Inc.	Greenlist TM Process to Reformulate Consumer Products (summary)	Racine	WI
2006 No	Separation Technologies LLC	Beneficiation and Use of Coal Combustion Fly Ash: A Major Success in Reducing Solid Waste and Increasing Supplies of Construction Materials While Reducing Greenhouse Gas Emissions (abstract)	Needham	MA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2006 Yes	Suppes, Galen J.; University of Missouri- Columbia	Biobased Propylene Glycol and Monomers from Natural Glycerin (summary)	Columbia	МО
2006 No	Syngenta	Mesotrione and Callisto® Plant Technology (abstract)	Washington	DC
2006 No	Tester, Jefferson W.; Massachusetts Institute of Technology	Replacing Organic Solvents and Homogeneous Catalysts with Water and Carbon Dioxide (abstract)	Cambridge	MA
2006 No	U.S. Department of Energy, Pacific Northwest National Laboratory	Self-Assembled Monolayers on Mesoporous Silica Technology: A Green Alternative Synthesis of a Novel Adsorbent for Mercury Source Reduction (abstract)	Richland	WA
2006 No	Ventana Research Corporation	Development of High Performance, Environmentally Benign Hard Disk Drive Polishing Fluids and Corrosion Inhibitors (abstract)	South Tucson	AZ
2006 No	W.F. Taylor Co., Inc.	Meta-Tec TM Low-VOC, One- Component, Cross-Linking Adhesive: Innovative Science–Applied Technology (abstract)	Dalton	GA
2006 No	Warner, John C.; University of Massachusetts Lowell	Bioinspired Thymine-Based Photopolymers: A Green Chemistry Platform for Innovation, Research, Education, and Outreach (abstract)	Lowell	MA
2006 No	Xerox Corporation	Xerox's Emulsion Aggregation Toner Technology (abstract)	Webster	NY
2006 No	ZIVATECH Corporation	<u>High-Efficiency Olefin to Polyolefin</u> <u>Process with Toxic Solvent Elimination</u> <u>(abstract)</u>	North Hills	CA
2006 No	ZIVATECH Corporation	New Biomass Catalytic Reforming Process for Solid Oxide Fuel Cell Power Generation (abstract)	North Hills	CA
2007 No	3M Office Supplies Division Laboratory	<u>Development of Water-Based Materials</u> <u>for Post-it® Super Sticky Notes</u> <u>(abstract)</u>	St. Paul	MN
2007 No	Advanced BioCatalytics Corporation	Uncoupling Biochemical Processes for Enhanced Biological Efficiency (abstract)	Irvine	CA
2007 No	Amerikal Products Corporation	Genesis® BRIGL Wash (abstract)	Waukegan	IL
2007 No	Arch Treatment Technologies, Inc.	Wolman® AG Metal-Free Wood Preservative (abstract)	Smyrna	GA
2007 No	Arkema Inc.	Green Chemistry in the Manufacture of Thioglycolic Acid (abstract)	Philadelphia	PA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Aspen Technology, Inc.	Correlating and Predicting Drug Molecule Solubility with a Nonrandom, Two-Liquid Segment Activity Coefficient Model (abstract)	Cambridge	MA
2007 No	Barricade International, Inc.	Environmentally and Toxicologically Safe Firefighting Gel (abstract)	Hobe Sound	FL
2007 No	BASF Corporation	A Non-HAP (Hazardous Air Pollutant) Coating for Extruded Aluminum (abstract)	Southfield	MI
2007 No	Beaulieu Group, LLC	Nexterra TM Carpet: Modified PET Carpet Backing (abstract)	Adairsville	GA
2007 No	Benchmark Performance Group, Inc.	GreensKeeper® Polymer Slurries for Oil and Gas Well Stimulation (abstract)	Houston	TX
2007 No	Bristol-Myers Squibb Company	<u>Irbesartan (Avapro®) Greenness Project</u> (abstract)	New York	NY
2007 No	Buckman Laboratories International, Inc.	Enzymes to Reduce Energy Use and Increase Recycling of Paper (abstract)	Memphis	TN
2007 Yes	Cargill, Incorporated	BiOH TM Polyols (summary)	Wayzata	MN
2007 No	Century Industrial Coatings Inc.	Nulo TM Technology: HAP-Free, Low- VOC, Water-Based, Air-Dry Coatings (abstract)	Jacksonville	TX
2007 No	Changing World Technologies, Inc.	Waste to Renewable Diesel (abstract)	West Hempstead	NY
2007 No	Cholli, Ashok L.; University of Massachusetts Lowell	High Performance Macromolecular Antioxidants for Materials: A Green Chemistry Approach (abstract)	Lowell	MA
2007 No	Crosslink	Corrosion-Resistance without Chromium: On-Demand Release of Environmentally Safe, Non-Chromium Corrosion Inhibitors from Electroactive Polymer Coatings (abstract)	Fenton	МО
2007 No	Dasgupta, Purnendu K.; The University of Texas at Arlington	A Green Analyzer for Arsenic in Drinking Water (abstract)	Arlington	TX
2007 No	Eastman Chemical Company	Optifilm Enhancer 400 – A Nonvolatile Coalescent for Formulating High-Performance, Reduced-VOC Architectural Coatings (abstract)	Kingsport	TN
2007 No	Ecology Coatings	Green Chemistry for Industrial Coatings (abstract)	Akron	ОН
2007 No	ECOSIL Technologies LLC	New One-Step, Chromate-Free Anticorrosion Coatings for Aluminum Alloys and HDG Steel (abstract)	Fairfield	ОН

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Emerson & Cuming	<u>Tin- and Copper-Compatible</u> <u>Conductive Adhesive for Lead-Free</u> <u>Electronic Circuit Assembly (abstract)</u>	Billerica	MA
2007 No	Environmentally Sensitive Solutions, Inc.	Liquid Seal and Nonhazardous Cleaner Eliminate Odor, Health, and Maintenance Problems Stifling the Acceptance and Implementation of Waterless Urinals (abstract)	Mequon	WI
2007 No	Exelus, Inc.	ExSact – A "Green" Gasoline Technology (abstract)	Livingston	NJ
2007 No	Exelus, Inc.	ExSyM – The Next Generation of Styrene Monomer Technology (abstract)	Livingston	NJ
2007 No	Fungi Perfecti, LLC	Mycopesticides and Mycoattractants (abstract)	Olympia	WA
2007 No	Georgia-Pacific Chemicals, LLC; Tao, Daniel, University of Kentucky	Georgia-Pacific Mining Reagents That Improve Recovery, Reduce Wastes, and Conserve Water and Other Natural Resources (abstract)	Decatur	GA
2007 No	Georgia-Pacific Corporation	Nitamin Steady Delivery Fertilizers for Improved Nitrogen Efficiency in Crops (abstract)	Decatur	GA
2007 No	Green Blue (Green Blue Institute)	<u>CleanGredientsTM: Systems-Based</u> <u>Information Technology for Green</u> <u>Chemistry (abstract)</u>	Charlottesville	VA
2007 Yes	Headwaters Technology Innovation	<u>Direct Synthesis of Hydrogen Peroxide</u> <u>by Selective Nanocatalyst Technology</u> (summary)	Lawrenceville	NJ
2007 No	Hutchison, James E.; University of Oregon	Greener Production of Functionalized Nanoparticles (abstract)	Eugene	OR
2007 No	IPAX Cleanogel, Inc.	The Use of Green Unikleen in Oil Spill Clean-Up, Both on Land and in Water (abstract)	Detroit	MI
2007 Yes	Krische, Michael J.; University of Texas at Austin	Hydrogen-Mediated Carbon-Carbon Bond Formation (summary)	Austin	TX
2007 No	LATA Group, The	New Green Technology for Eliminating Hydrogen Sulfide in Aqueous Systems, Especially Petroleum Industry Systems (abstract)	Ochelata	OK
2007 Yes	Li, Kaichang; Oregon State University; Columbia Forest Products; Hercules Incorporated	Development and Commercial Application of Environmentally Friendly Adhesives for Wood Composites (summary)	Corvallis	OR

Year Winne	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Maffia, Gennaro J.; Widener University	Application of Collagen Nanofibrils in Green Processing and Synthesis (abstract)	Chester	PA
2007 No	McCullough, Richard D.; Carnegie Mellon University	Regioregular Polythiophenes as a Platform for Organic Photovoltaic Technology (abstract)	Pittsburgh	PA
2007 No	Merck & Co., Inc.	A New, Highly Efficient, Environmentally Responsible Synthesis of Laropiprant (MK-0524) (abstract)	Rahway	NJ
2007 No	Merck & Co., Inc.	Kilogram-Scale Purification of Pharmaceutical Candidates and Intermediates Using Preparative Supercritical Fluid Chromatography (abstract)	Rahway	NJ
2007 No	Momentive Performance Materials Inc.	Commercialization of NXT Z [®] : An Ethanol-Free, Low-VOC, High- Performance Silane for Silica Tires (abstract)	Tarrytown	NY
2007 No	Momentive Performance Materials Inc.	Novel Superspreading Siliconized Surfactants (abstract)	Tarrytown	NY
2007 No	MYCELX Technologies Corp.	Novel Device for Removing Mercury from Produced Water and Vapor Streams (abstract)	Gainesville	GA
2007 No	Nalco Company	A New Corrosion Inhibitor Reduces the Environmental Impact of Industrially Treated Water (abstract)	Naperville Naperville	IL
2007 No	Nitrate Elimination Co., Inc., The	Greener Chemistry for Nitrate Analysis: Enzymatic Reduction Method (abstract)	Lake Linden	MI
2007 Yes	NovaSterilis, Inc.	Environmentally Benign Medical Sterilization Using Supercritical Carbon Dioxide (summary)	Lansing	NY
2007 No	Osmose, Inc.	MicroPro TM Technology in Wood Preservation (abstract)	Griffin	GA
2007 No	Pantheon Chemical	PreKote® Surface Pretreatment: Replacing Hexavalent Chromium with an Environmentally Safe Solution (abstract)	Phoenix	AZ
2007 No	Pirrung, Michael C.; University of California, Riverside	Environmentally Friendly Isonitrile- Based Syntheses (abstract)	Riverside	CA
2007 No	Procter & Gamble Company, The	Tide Coldwater®: Energy Conservation through Residential Laundering Innovation and Commercialization (abstract)	Cincinnati	ОН

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2007 No	Schultz, Tor P.; Nicholas, Darrel D.; Mississippi State University	Enhancing the Efficacy of Totally Organic Wood Preservatives with Low- Cost, Benign Additives (abstract)	Mississippi State	MS
2007 No	Severn Trent Services	Iron Oxide for Arsenic Removal from Drinking Water (abstract)	Fort Washington	PA
2007 No	Soloshonok, Vadim A.; Ueki, Hisanori; The University of Oklahoma	Biomimetic Reductive Processes (abstract)	Norman	OK
2007 No	Stoller Enterprises, Inc.	Alternative to Methyl Bromide to Overcome Nematode Damage to Crops and Concomitantly Enhance Yield, Crop Quality, and Abiotic and Biotic Tolerance (abstract)	Houston	TX
2007 No	Super Trap Inc.	GEL-COR®: A New, Environmentally Compatible, Bullet-Trapping Medium for Small-Arms Firing Ranges (abstract)	Corona	CA
2007 No	U.S. Army, U.S. Army Edgewood Chemical Biological Center	Enzyme-Based Technology for Decontaminating Toxic Organophosphorus Compounds (abstract)	Aberdeen Proving Ground	MD
2007 No	U.S. Department of Energy, Argonne National Laboratory	Solventless Process for Making Tackifiers and Adhesives (abstract)	Washington	DC
2007 No	U.S. Department of Energy, Los Alamos National Laboratory	Green Primaries: Environmentally Friendly, Sensitive Explosives (abstract)	Los Alamos	NM
2007 No	U.S. Department of Energy, Los Alamos National Laboratory	Ultrapure Carbon and Carbon–Nitride Nanomaterials Derived from Simple Pyrolyses of Nearly Chock-Full Nitrogen Compounds (abstract)	Los Alamos	NM
2007 No	van Ooij, Wim J.; University of Cincinnati	Novel, One-Step, Chromate-Free Coatings Containing Anticorrosion Pigments to Replace Chromate Pretreatment and Pigments (abstract)	Cincinnati	ОН
2007 No	Velocys Inc.	Olefins by High-Intensity Oxidation (abstract)	Plain City	ОН
2007 No	Zhang, Xumu; The Pennsylvania State University	Practical Asymmetric Catalytic Hydrogenation (abstract)	University Park	PA
2007 No	Zhao, Huimin; van der Donk, Wilfred A.; Metcalf, William W.; University of Illinois	A Novel Phosphite Dehydrogenase Based NAD(P)H Regeneration Technology for Industrial Biocatalysis (abstract)	Urbana	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	Adventus Group, The	EHC TM for a Greener Groundwater Treatment Technology (abstract)	Freeport	IL
2008 No	Arkema Inc.	Replacement of Perfluorinated Alkyl Surfactants with Nonfluorinated Surfactants in Polymer Manufacturing (abstract)	King of Prussia	PA
2008 No	Ashland Inc.	GEOSET NEO®: Low Emission Technology for the Metal Casting Industry (abstract)	Dublin	ОН
2008 No	Ashland Inc.	Reducing the Environmental, Health and Safety Impact of Cooling Water Treatment Programs (abstract)	Boonton	NJ
2008 No	Ashland Inc.	Solventless, Low-Toxicity, Thermosetting Oligomers that Require Only Low Energy to Cure (abstract)	Dublin	ОН
2008 No	ATK Lake City Ammunition Division	P4rimer TM : A Non-Toxic, Heavy- Metal-Free Primer Fueled by Red Phosphorus for Small Arms Cartridges (abstract)	Independence	МО
2008 No	Augustine, Robert L.; Seton Hall University; NutraSweet Corporation, The	Bromine Free, TEMPO Based Catalyst System for the Oxidation of Alcohols (abstract)	South Orange	NJ
2008 Yes	Battelle	Development and Commercialization of Biobased Toners (summary)	Columbus	ОН
2008 No	ChK group, Inc.	Nanophase Mn(VII) Oxide: Synthesis using Green Technology and Applications (abstract)	Plano	TX
2008 No	Codexis, Inc.	Greening Montelukast Manufacture: Replacing a Stoichiometric Chiral Boron Reagent with a Green-by- Design, Economical Biocatalytic Reduction Enabled by Directed Evolution (abstract)	Redwood City	CA
2008 No	Cutting Edge Formulations, Inc.	Nature's Avenger® Organic Herbicide: A Fast-Acting, Highly Effective, Organic Alternative to Synthetic and Natural Herbicides (abstract)	Buford	GA
2008 No	Cytec Industries Inc.	Cytec Innovation Management System: Sustainable Development of New Products (abstract)	West Paterson	NJ
2008 No	Cytec Industries Inc.	Revolutionizing Energy-Curing Resins for Food Packaging Applications (abstract)	West Paterson	NJ

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 Yes	Dow AgroSciences	Spinetoram: Enhancing a Natural Product for Insect Control (summary)	Indianapolis	IN
2008 No	Dow Chemical Company	Novel Process for Producing Polyols Based on Natural Oils (abstract)	Midland	MI
2008 No	Dow Corning Corporation	Water and Energy Conservation in Denim Finishing (abstract)	Midland	MI
2008 No	DuraBan International, Inc.	Environmentally Friendly Antimicrobial Surface Treatment (abstract)	Buffalo	MN
2008 No	Eastman Chemical Company	IntegRex Technology (abstract)	Kingsport	TN
2008 No	Eli Lilly and Company	A Practical and Green Chemical Strategy for the Manufacture of Neurokinin 1 Antagonist, LY686017 (abstract)	Indianapolis	IN
2008 No	EverNu Technology, LLC	Enabling Technology for Methacrylic Acid Production using Isobutane as the Feedstock (abstract)	Maple Glen	PA
2008 No	EverTech LLC	Everdex-Enhanced Alowood (abstract)	Ferndale	WA
2008 No	G3 Technology Innovations, LLC	Surface Functionalized Nanomaterials: Significantly Reducing Fluorochemicals in Consumer Items (abstract)	Pittsford	NY
2008 No	GlaxoSmithKline	GlaxoSmithKline's Eco-Design Toolkit TM (abstract)	Philadelphia	PA
2008 No	Hach Company	Arsenic-Free SPADNS Chemistry for Fluoride Analysis in Water (abstract)	Loveland	CO
2008 No	Huntsman Corporation	G2 Catalyst for New and Improved SURFONIC® Non-Ionic Surfactants (abstract)	The Woodlands	TX
2008 No	Inland Environmental Resources, Inc.	Environmentally Friendly Antacid Formulations for Wastewater Treatment (abstract)	Pasco	WA
2008 No	International Polyol Chemicals, Inc. (IPCI)	Production of Diverse Industrial Glycols from Renewable Six and Five- Carbon Sugars and Glycerin, the Byproduct of Biodiesel Manufacture (abstract)	Ephrata	WA
2008 No	Jiang, Shaoyi; University of Washington	Development of Environmentally Benign Nonfouling Materials and Coatings for Marine Applications (abstract)	Seattle	WA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	Johnson & Johnson	Application of Green Chemistry Principles in the Scale-Up of the Darunavir Process (abstract)	New Brunswick	NJ
2008 No	Leadbeater, Nicholas E.; University of Connecticut	Microwave Heating as an Enabling Tool for Greener Synthesis (abstract)	Storrs	СТ
2008 No	Lubrizol Corporation, The	Novel Green Chemistries Extend the Useful Life of Automobile Catalytic Converters and Reduce Exhaust Gaseous Emissions (abstract)	Wickliffe	ОН
2008 Yes	Maleczka, Robert E., Jr.; Milton R. Smith, III; Michigan State University	Green Chemistry for Preparing Boronic Esters (summary)	East Lansing	MI
2008 No	MIOX Corporation	On-Site Generation of Mixed Oxidants as a Safe, Green Alternative to Chlorine Gas and Concentrated Bulk Bleach (abstract)	Albuquerque	NM
2008 Yes	Nalco Company	3D TRASAR® Technology (summary)	Naperville	IL
2008 No	NCH Corporation	System for Bioremediation of Effluents (abstract)	Irving	TX
2008 No	Organic Recovery, LLC.	Biochemical Hydrolyzation of Organics in Food Wastes into a Liquid Fertilizer and Soil Amendment (abstract)	Pompano Beach	FL
2008 No	Peng, Xiaogang; University of Arkansas; Nanomaterials and Nanofabrication Laboratories, LLC (NN- Labs)	Doped Semiconductor Nanocrystals as Heavy-Metal-Free Quantum Dots (abstract)	Fayetteville	AR
2008 No	Pfizer, Inc.	Convergent Green Synthesis of Linezolid (Zyvox TM), an Oxazolidinone Antibacterial Agent (abstract)	Kalamazoo	MI
2008 No	Pyrotechnique by Grucci, Inc.	Perchlorate-Free Pyrotechnic Composition for Military Training Munitions (abstract)	Brookhaven	NY
2008 No	Ragauskas, Arthur J.; Georgia Institute of Technology	Developing Lignocellulosic Biorefineries (abstract)	Atlanta	GA
2008 No	Rhein Chemie Corporation	Additives for Optimizing Renewable Resources in the Production of Polyurethane Systems and Plastics (abstract)	Chardon	ОН
2008 No	Roche Carolina Inc.	Scalable Non-Aqueous Process to Prepare Water-Soluble Aminodiol (abstract)	Florence	SC

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2008 No	Sepracor, Inc.	Adventures in Green Chemistry (abstract)	Marlborough	MA
2008 Yes	SiGNa Chemistry, Inc.	New Stabilized Alkali Metals for Safer, Sustainable Syntheses (summary)	New York	NY
2008 No	Specialty Fertilizer Products	Biodegradable, Water-Soluble Anionic Polymers, Prepared in an Environmentally Benign Process, Enhance the Efficiency of Phosphorus Use by Plants (abstract)	Belton	МО
2008 No	Tennant Company	ech2o TM - Electrically Charged Water (abstract)	Minneapolis	MN
2008 No	Thames, S. F.; Rawlins, J. W.; The University of Southern Mississippi	Vegetable Oil Based Macromonomers in Emulsion Polymers for High- Performance, Zero-VOC Architectural Coatings (abstract)	Hattiesburg	MS
2008 No	Thermo Fisher Scientific	Green pH Electrodes (abstract)	Beverly	MA
2008 No	Torch Technologies LLC	Manufactured Firelogs Based on Whole Timber (abstract)	Ferndale	WA
2008 No	TyraTech, Inc.	Greening Insecticides and Parasiticides (abstract)	San Francisco	CA
2008 No	Wildeman, Thomas; Colorado School of Mines	Passive Treatment of Metal- Contaminated Water (abstract)	Golden	СО
2009 No	$3M^{TM}$	Reformulation of 3M TM Neutral Cleaner and 3M TM General Purpose Cleaner for the 3M TM Twist 'n Fill TM Chemical Management System Reduces Air Pollution and Employee Health Hazards (abstract)	St. Paul	MN
2009 No	American Ordnance LLC	Inert Filler TB-1 (abstract)	Middletown	IA
2009 No	Ashland Hercules Water Technologies	Pulp Mill Defoamers Based on Vegetable Oil (abstract)	Wilmington	DE
2009 No	Ashland Inc.	Water-Based Refractory Coatings with Wet/Dry Color Change Indication (abstract)	Dublin	ОН
2009 No	Bayer MaterialScience LLC	AURA® Infusion Technology: A Green Method to Incorporate Color and Performance Additives (abstract)	Pittsburgh	PA
2009 Yes	CEM Corporation	Innovative Analyzer Tags Proteins for Fast, Accurate Results without Hazardous Chemicals or High Temperatures (summary and podcast)	Matthews	NC

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Clorox Company, The	GreenWorks TM Natural Cleaners from the Makers of Clorox: Home Cleaning Products (abstract)	Pleasanton	CA
2009 No	Codexis, Inc.	Greening Atorvastatin Manufacture: Replacing a Wasteful, Cryogenic Borohydride Reduction with a Green- by-Design, More Economical Biocatalytic Reduction for a Higher Quality Product (abstract)	Redwood City	CA
2009 No	Davis, James Hillard Jr.; University of South Alabama	Liquid but Nonvolatile Sulfonic Acids and Amines: Greener Chemicals for Greening Processes (abstract)	Mobile	AL
2009 No	Doty Energy	Recycling Carbon Dioxide into Carbon-Neutral Liquid Fuels (abstract)	Columbia	SC
2009 No	Dow Chemical Company, The	Glycerin to Epichlorohydrin Process: How Green is my Epichlorohydrin? (abstract)	Freeport	TX
2009 Yes	Eastman Chemical Company	A Solvent-Free Biocatalytic Process for Cosmetic and Personal Care Ingredients (summary and podcast)	Kingsport	TN
2009 No	Ecolab Inc.	Wash 'n Walk TM Floor Care System (abstract)	Inver Grove Heights	MN
2009 No	Eli Lilly and Company	New Manufacturing Route for Arzoxifene Hydrochloride (abstract)	Indianapolis	IN
2009 No	FlyAshDirect Ltd.; Cognis Corporation	Carbon Blocker TM Fly Ash Conditioning Treatment (abstract)	Cincinnati	ОН
2009 No	French Creek Software, Inc	Chemical Treatment Modeling and Optimization Software: The French Creek Software Calculation Engine (abstract)	Kimberton	PA
2009 No	Gill, Raminderjit (Sonam); Alvarez, Jessica; University of California, Santa Barbara	The University of California, Santa Barbara Green Chemistry Initiative (abstract)	Santa Barbara	CA
2009 No	GVD Corporation	Novel Solvent-Free Fluoropolymer Coating Process (abstract)	Cambridge	MA
2009 No	Gyberg, Arlin E., Augsburg College; SarTec Corporation	The Mcgyan Process: A Green Synthetic Route for Biodiesel Production (abstract)	Anoka	MN
2009 No	Henkel Corporation	Aquence® Autodeposition Coating: The Smart Coating Solution (abstract)	Madison Heights	MI
2009 No	Henkel Corporation	Bonderite® TecTalis: Next-Generation Coating (abstract)	Madison Heights	MI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	Huntsman Advanced Materials Corporation	Manufacturing More Efficient Fuel Cells to Reduce Carbon Dioxide Emissions (abstract)	The Woodlands	TX
2009 No	Ingenuity IEQ, Inc.	Green Chemistry for Energy Conservation and Indoor Environmental Quality (abstract)	Midland	MI
2009 Yes	Matyjaszewski, Krzysztof; Carnegie Mellon University	Atom Transfer Radical Polymerization: Low-impact Polymerization Using a Copper Catalyst and Environmentally Friendly Reducing Agents (summary and podcast)	Pittsburgh	PA
2009 No	Merck & Co., Inc.	Green Chemistry in Action: A Remarkably Efficient and Sustainable Synthesis of the HIV Integrase Inhibitor, Raltegravir TM (abstract)	Rahway	NJ
2009 No	Method Products	Method Smarty Dish for Fish: An Environmentally Responsible and Effective Cleaning Solution: No Phosphates, Acrylates, or Ethylenediaminetetraacetic Acid (abstract)	San Francisco	CA
2009 No	Milliken & Company	TractionBack®: Alternative Green Adhesives Solutions for Textile Composites Used in Commercial Buildings (abstract)	Spartanburg	SC
2009 No	Narayan, Ramani; Michigan State University: KTM Industries, Inc.	Biodegradable, Chemically Modified Starch Polymers for Protective Foam Packaging and Insulation Applications (abstract)	East Lansing	MI
2009 No	Ozone International LLC	Cleaning and Disinfecting with Ozone: Making Green Chemistry with WhiteWater TM Ozone (abstract)	Bainbridge Island	WA
2009 No	Plasmatreat North America Inc.; Ford Motor Company	Openair TM Plasma Surface Treatment: Reducing Emissions of Volatile Organic Compounds and Improving Environmentally Sensitive Paint Processes (abstract)	Dearborn	MI
2009 No	PPG Industries, Inc.	Green Logic TM : Chitosan-Enhanced Paint Detackifier (abstract)	Troy	MI
2009 No	PPG Industries, Inc.	Zircobond TM Pretreatment (abstract)	Troy	MI
2009 Yes	Procter & Gamble Company, the; Cook Composites and Polymers Company	Chempol® MPS Resins and Sefose® Sucrose Esters Enable High- Performance Low-VOC Alkyd Paints and Coatings (summary and podcast)	Cincinnati	ОН

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2009 No	SABIC Innovative Plastics	Chemical Conversion of Post- Consumer Recycled Polyethylene Terephthalate Waste into Sustainable Valox iQ TM and Xenoy iQ TM Engineering Thermoplastic Products (abstract)	Mount Vernon	IN
2009 No	Schweitzer, Linda; Oakland University; Reed, Robert; University of Missouri; Earth Science Laboratories, Inc.	EarthTec®: Green Water Treatment (abstract)	Rochester	MI
2009 No	Sherwin-Williams Company, The	High-Solids Hybrid Sucrose Ester Polymer Technology (abstract)	Cleveland	ОН
2009 No	STERIS Corporation; Virox Technologies	An Alternative to Aldehyde-Based Liquid Chemical Sterilants and High- Level Disinfectants for Reprocessing Heat-Sensitive, Semi-Critical Medical Instruments (abstract)	Mentor	ОН
2009 No	TDA Research, Inc.; Cytec Industries Inc.	Replacement for Solvent-Based, Chromate-Containing Primer (abstract)	Golden	СО
2009 No	U.S. Department of Energy, Argonne National Laboratory	Diesel DeNO _x Catalyst (abstract)	Argonne	IL
2009 No	U.S. Department of Energy, Argonne National Laboratory	Resin Wafer Technology (abstract)	Argonne	IL
2009 No	VeruTEK Technologies, Inc.	Green Synthesis of Nanometal Catalysts and Plant Surfactant-Based, In Situ Chemical Oxidation for Sustainable Treatment and Remediation (abstract)	Bloomfield	СТ
2009 Yes	Virent Energy Systems, Inc.	BioForming® Process: Catalytic Conversion of Plant Sugars into Liquid Hydrocarbon Fuels (summary and podcast)	Madison	WI
2009 No	Water Conservation Technology International, Inc.	Sustainable, Natural Green Chemistry for Cooling Water Treatment (abstract)	Temecula	CA
2009 No	Wender, Paul A.; Stanford University	Green Chemistry through Function- Oriented Synthesis, Step Economy, and Ideal Synthesis (abstract)	Stanford	CA
2009 No	ZeaChem Inc.	<u>Cellulose-Based Fuels and Intermediate</u> <u>Chemicals (abstract)</u>	Lakewood	СО
2009 No	Zep Inc.	Renewable-Resource Industrial Products (abstract)	Atlanta	GA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2010 No	A.S. Trust & Holdings, Inc.	HCR-188C1: A.S. Trust & Holdings, Inc.'s All-New, High-Efficiency Hydrocarbon Refrigerant With No Impact on Global Warming or the Ozone Layer (abstract)	Kaneohe	НІ
2010 No	Advanced Technology Materials, Inc.	RegenSi TM : A Wafer Reclaim Solution with a Low Carbon Footprint that Extends the Life Cycle of Silicon Test Wafers (abstract)	Danbury	CT
2010 No	AkzoNobel Functional Chemicals, LLC	Bipolar Membrane Electrodialysis for Greener Processing of Chelates (abstract)	Chicago	IL
2010 No	APTech Group, Inc.	Safer, Sustainable, Biodegradable, Solid-State Chemistry for Treating Cooling Water Systems (abstract)	Cincinnati	ОН
2010 No	Baker Hughes Incorporated	Highly Water-Dispersed Oilfield Corrosion Inhibitors Eliminate over One Million Pounds of Nonrenewable Solvents Annually (abstract)	Sugar Land	TX
2010 No	Bayer Material Science, LLC	IMPACT Technology: A Greener Polyether Polyol Process (abstract)	South Charleston	WV
2010 No	BCR Environmental LLC; SABIC Innovative Plastics	Recovering and Using a Formerly Incinerated Sodium Nitrite Waste Stream to Disinfect and Stabilize Municipal Biosolids (abstract)	Jacksonville	FL
2010 No	Bend Research Inc.	Spray-Dried Dispersions Based on Hydroxypropyl Methylcellulose Acetate Succinate for Delivery of Low- Solubility Drugs (abstract)	Bend	OR
2010 No	Berry Plastics; Flame Chk Inc.; Chemische Fabrik Budenheim KG	Nonhalogenated Flame Retardant for Use in High-Performance Adhesives and Coatings (abstract)	Bristol	RI
2010 No	BioFuelBox, Inc.	Supercritical—Solid Catalyst Reaction Process for Converting Waste Fats, Oils, and Greases into Premium Biodiesel (abstract)	San Jose	CA
2010 No	Cargill, Incorporated	The Development and Commercialization of a Low-pH, Lactic Acid Process for Renewable Plastics (abstract)	Minnetonka	MN
2010 No	Chemguard Ltd.	Elimination of Perfluorinated Alkyl Surfactants from Fire-Fighting Foams (abstract)	Mansfield	TX
2010 Yes	Clarke	Natular TM Larvicide: Adapting Spinosad for Next-Generation	Roselle	IL

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Mosquito Control (summary and podcast)		
2010 No	Codexis, Inc.	Rapid Enablement of Green Processes for Chiral Alcohols by the Codex TM Panel of Robust, Divergent Evolvants of One Ancestral Ketoreductase (abstract)	Redwood City	CA
2010 No	Cortec Corporation	Corrosion Control with a Greener Pathway (abstract)	St. Paul	MN
2010 No	Cytec Industries Inc.	UV-Curable Pressure Sensitive Adhesive (abstract)	Woodland Park	NJ
2010 No	Dionex Corporation	Accelerated Solvent Extraction with Solvent Saver Mode TM : Reducing Organic Solvent Consumption and Waste in Laboratories (abstract)	Sunnyvale	CA
2010 No	Dow Chemical Company, The	An Innovative Approach to Texturizers without Hydrofluoric Acid or Nitric Acid for Multicrystalline Silicon Photovoltaics (abstract)	Marlborough	MA
2010 No	Dow Chemical Company, The	Energy Savings from a New Manufacturing Route for Vinyl Methyl Ether (abstract)	Midland	MI
2010 Yes	Dow Chemical Company, The; BASF	Innovative, Environmentally Benign Production of Propylene Oxide via Hydrogen Peroxide (summary and podcast)	Midland	MI
2010 No	E. I. du Pont de Nemours and Company	Cerenol® Polyol Technology Platform for a Sustainable Bio-Based Economy (abstract)	Wilmington	DE
2010 No	Henkel Technologies	A Safer, Environmentally Superior, High-Performance Acid Inhibitor Designed to Protect Metallic Infrastructure during Industrial Cleaning (abstract)	Madison Heights	MI
2010 Yes	Liao, James C.; Easel Biotechnologies, LLC; University of California, Los Angeles	Recycling Carbon Dioxide to Biosynthesize Higher Alcohols (summary and podcast)	Los Angeles	CA
2010 Yes	LS9, Inc.	Microbial Production of Renewable Petroleum TM Fuels and Chemicals (summary and podcast)	South San Francisco	CA
2010 No	MacGillivray, Leonard R.; University of Iowa; University of Iowa Research Foundation	Template-Controlled Reactivity in the Organic Solid State (abstract)	Iowa City	IA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2010 Yes	Merck & Co., Inc.; Codexis, Inc.	Greener Manufacturing of Sitagliptin Enabled by an Evolved Transaminase (summary and podcast)	Rahway	NJ
2010 No	Pennakem LLC	2-Methyltetrahydrofuran: A Green Alternative to Oil Derived Ethers and Chlorinated Solvents (abstract)	Memphis	TN
2010 No	Preventive Technology Inc.	PRE-TEC 3000®: An Environmentally Friendly Wood Treatment (abstract)	Greenville	SC
2010 No	STERIS Corporation	An Environmentally Friendly Alternative for Cleaning Surgical Instruments in Healthcare Facilities (abstract)	Mentor	ОН
2010 No	Sun, Xiuzhi Susan; Kansas State University; SoyResin, LLC	Green Process of Unfolding Soy Protein Polymers for Green Adhesives (abstract)	Manhattan	KS
2010 No	Thermphos USA Corp.	Dequest® PB: Carboxymethyl Inulin, A Versatile Scale Inhibitor from the Roots of Chicory (abstract)	Mechanicsville	VA
2010 No	Troy Corporation	Source Reduction and Sustainability through Use of Mergal® 753 Antimicrobial Preservative (abstract)	Florham Park	NJ
2011 No	Aeroclay, Inc.; Schiraldi, David; Case Western Reserve University	AeroClay®: A Green Aerogel for Industry (abstract)	Solon	ОН
2011 No	BASF Corporation	Green Sense SM Concrete (abstract)	Beachwood	ОН
2011 No	Battelle Memorial Institute	Bio-Derived Green Primary Polyvinyl Chloride Plasticizers with Improved Thermal Stability and Plasticization Efficiency (abstract)	Columbus	ОН
2011 Yes	BioAmber, Inc.	Integrated Production and Downstream Applications of Biobased Succinic Acid (summary and podcast)	Minneapolis	MN
2011 No	Champion Technologies, Inc.	Lysine-Based Phosphonate Scale Inhibitor with Improved Biodegradation and Maintained Performance (abstract)	Houston	TX
2011 No	Chemical Safety Software	Source Reduction through Software Technology (abstract)	Emeryville	CA
2011 No	Commercial Fluid Power LLC	Elimination of Hexavalent Chromium from Hydraulic and Pneumatic Tubing and Bar (abstract)	La Porte	IN
2011 No	Cytec Industries Inc.	iSUSTAIN® Green Chemistry Index Tool for Sustainable Development (abstract)	Woodland Park	NJ

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Cytec Industries Inc.	Waterborne, Ambient-Cure, Stain- Blocking Primer (abstract)	Woodland Park	NJ
2011 No	Desilube; United Soybean Board	High Performance Soy-Based Metalworking Fluid (abstract)	St. Louis	МО
2011 No	Diversey Inc.	ReNew Air Scrubber Technology (abstract)	Sturtevant	WI
2011 No	Dober Chemical Corporation	A Safer, Less Toxic, Reliable, and Green Water Treatment by Smart Release® Technology (abstract)	Woodridge	IL
2011 No	Earth Friendly Products	Earth Conscious Chemistry: Eliminating 1,4 Dioxane in Cleaning Products (abstract)	Garden Grove	CA
2011 No	Ecolab Inc.	<u>DryExx Conveyor Lubricant Program</u> (abstract)	Eagan	MN
2011 No	Ecolab Inc.	Low-Temperature Cleaning In Place (abstract)	Eagan	MN
2011 No	Eli Lilly and Company	Continuous Processing Enables a Convergent Route to a New Drug Candidate: LY2624803*H3PO4 (abstract)	Indianapolis	IN
2011 No	Finn, M. G.; The Scripps Research Institute	Metal Adhesive Polymers from Cu(I)- Catalyzed Azide-Alkyne Cycloaddition: a New Approach to Solder Replacements (abstract)	La Jolla	CA
2011 No	FMC Corporation	VigorOx® Biocide: Advancing Environmentally Responsible Energy Production (abstract)	Philadelphia	PA
2011 No	Foam Supplies, Inc.	Ecomate® Environmentally Benign Blowing Agent for Polyurethane Foams (abstract)	Earth City	МО
2011 No	Fuel Energy Service Corporation	Surachi Fuel Technology (abstract)	Mobile	AL
2011 No	Genencor	Gentle Power Bleach TM : A Revolutionary Enzymatic Textile Bleaching System (abstract)	Palo Alto	CA
2011 No	General Motors	Applying Green Chemistry Principles to Enable Zero-Waste Manufacturing (abstract)	Grand Blanc	MI
2011 Yes	Genomatica	Production of Basic Chemicals from Renewable Feedstocks at Lower Cost (summary and podcast)	San Diego	CA
2011 No	Hach Company	Simplified Total Kjeldahl Nitrogen Method for Wastewater: A Green	Loveland	СО

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Alternative to Traditional Kjeldahl Methodology (abstract)		
2011 No	JEEN International	Polyelectrolytes: Reduce Your Carbon Footprint Using an Eco-Friendly Technology to Disperse Wax in Water without Heat (abstract)	Fairfield	NJ
2011 Yes	Kraton Performance Polymers, Inc.	NEXAR TM Polymer Membrane Technology (summary and podcast)	Houston	TX
2011 Yes	Lipshutz, Bruce H.; University of California, Santa Barbara	Towards Ending Our Dependence on Organic Solvents (summary and podcast)	Santa Barbara	CA
2011 No	L'Oreal USA	Kiehl's "Aloe Vera" Biodegradable Liquid Body Cleanser (abstract)	Clark	NJ
2011 No	Lubrizol Corporation, The	Positive Environmental Impact of Novel Crankcase Lubricant Technology (abstract)	Wickliffe	ОН
2011 No	Natural State Research, Inc.	Conversion of Waste Plastics into Fuel (abstract)	Stamford	CT
2011 No	Novozymes North America, Inc.	Enabling a Sustainable Biorefinery with Green Chemistry: Enzymatic Hydrolysis of Lignocellulosic Biomass for the Production of Advanced Biofuels and Renewable Chemicals (abstract)	Franklinton	NC
2011 No	Orono Spectral Solutions	Device and Method for Analyzing Oil and Grease in Wastewaters without Solvent (abstract)	Old Town	ME
2011 No	Pacific Scientific Energetic Materials Co.	New Lead Free Materials for Replacement of Existing Primary Explosives (abstract)	Chandler	AZ
2011 No	Piedmont Biofuels Industrial, LLC	Enzymatic Catalysis for Biodiesel Production (abstract)	Pittsboro	NC
2011 No	Polar Industries, Inc.	Zero-VOC, BioBased HiOmega® Linseed Oil Epoxies, Adhesives, and Alkyd Resins as Replacements for Epichlorohydrin— Epoxy Resins and Other VOC- containing Coatings, Paints, Adhesives, and Epoxies (abstract)	Miami	FL
2011 No	PPG Industries, Inc.	Waterborne Refi nish Coatings Manufacture (abstract)	Strongsville	ОН
2011 No	Rochester Midland Corporation	Enhance O ₂ Soil Remover for Commercial Fryers (abstract)	Rochester	NY

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2011 No	Rochester Midland Corporation	PRS Water Damage PreClean: Biological Cleaning for Restoration and Remediation (abstract)	Rochester	NY
2011 No	Savage, Phillip E.; University of Michigan	Terephthalic Acid Synthesis at High Concentrations in High-Temperature Liquid Water (abstract)	Ann Arbor	MI
2011 Yes	Sherwin Williams Company, The	Water-based Acrylic Alkyd Technology (summary and podcast)	Cleveland	ОН
2011 No	Sigma-Aldrich	Green Chemistry Process for the Large-Scale Manufacture of Polyamino Acids (abstract)		МО
2011 No	Solvair LLC	Solvair Cleaning System (abstract)	Naperville	IL
2011 No	Steward Advanced Materials	Development and Commercial Application of SAMMS®: A Novel Compound that Adsorbs and Removes Mercury and Other Toxic Heavy Metals (abstract)	Chattanooga	TN
2011 No	Terrabon, Inc.	Conversion of Municipal Solid Wastes to Drop-In Fuels and Chemicals (abstract)	Houston	TX
2011 No	Timber Treatment Technologies, LLC	TimberSIL® (abstract)	Springfield	VA
2011 No	Tower Oil & Technology Co.	Saf-T-Vanish®: A Zero-VOC, Green Replacement for Petroleum Solvent Vanish Oils (abstract)	Chicago	IL
2011 No	van Heiningen, Adriaan; Genco, Joseph; Pendse, Hemant; van Walsum, Peter; University of Maine	Pre-Pulping Extraction of Hardwood Chips to Recover Hemicelluloses as a High-Value Renewable Chemical Feedstock that Reduces Waste and Saves Fossil Fuel (abstract)	Orono	ME
2011 No	WM Barr & Company, Inc.	Klean-Strip® Green TM Safer Paint Thinner (abstract)	Memphis	TN
2012 No	Albemarle Corporation	Concrete-Friendly TM Powdered Active Carbon (C-PAC TM) to Remove Mercury from Flue Gas Safely (abstract)	Baton Rouge	LA
2012 No	Armstrong World Industries, Inc.	BioBased Tile®: A Non-PVC Flooring Made with Rapidly Renewable Resources (abstract)	Lancaster	PA
2012 No	Ashland Performance Materials	Envirez TM Technology: Incorporating Renewable and Recycled Feedstocks into Unsaturated Polyester Resins (abstract)	Dublin	ОН
2012 No	BASF Corporation	Compostable Multilayer Food Packaging (abstract)	Wyandotte	MI

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2012 No	Bayer MaterialScience and Bayer AG	One-Component, UV-Curable, Waterborne Polyurethane Coatings (abstract)	Pittsburgh	PA
2012 No	BCD Group-II, Inc.	Producing Chemicals and Carbon from Waste Tires, Plastics, Carpet, and Biomass (abstract)	Cincinnati	ОН
2012 No	Bennett, Jacqueline; State University of New York Oneonta; SUNY Research Foundation	Ethyl L-Lactate as a Tunable Solvent for Greener Synthesis of Diaryl Aldimines (abstract)	Oneonta	NY
2012 No	Blue Marble Biomaterials LLC	Greening the Design of Chemical Production with Microbes (abstract)	Missoula	MT
2012 Yes	Buckman International, Inc.	Enzymes Reduce the Energy and Wood Fiber Required to Manufacture High- Quality Paper and Paperboard (summary and podcast)	Memphis	TN
2012 No	CCP Composites	FIREBLOCK TM Intumescent Resin (abstract)	Kansas City	МО
2012 Yes	Coates, Geoffrey W.; Cornell University	Synthesizing Biodegradable Polymers from Carbon Dioxide and Carbon MoNO _x ide (summary and podcast)	Ithaca	NY
2012 Yes	Codexis, Inc.; Yi Tang; University of California, Los Angeles	An Efficient Biocatalytic Process to Manufacture Simvastatin (summary and podcast)	Redwood City	CA
2012 No	Colonial Chemical, Inc.	Suga®Nate: A Safer, Milder, Greener Surfactant (abstract)	South Pittsburg	TN
2012 No	Cooper Power Systems	Vegetable Oil Insulating Fluid for Improved High Voltage Transformer Capability (abstract)	Waukesha	WI
2012 No	CPS Biofuels, Inc.	Glycerol tert-Butyl Ether (GTBE): A Biofuel Additive for Today (abstract)	Virginia Beach	VA
2012 No	Cytec Industries Inc.	Saturated Polyester–Phenolic Resin Systems Eliminate Bisphenol A and Epoxy from Interior Can Coatings for Food Packaging (abstract)	Woodland Park	NJ
2012 Yes	Cytec Industries Inc.	MAX HT® Bayer Sodalite Scale Inhibitor (summary and podcast)	Woodland Park	NJ
2012 No	DuPont Company	Chlorantraniliprole: Increased Food Production, Reduced Risks, More Sustainable Agriculture (abstract)	Wilmington	DE
2012 No	DuPont Company and Butamax TM Advanced BioFuels LLC	Production of Isobutanol from the Synergy between Metabolic and Process Engineering (abstract)	Wilmington	DE

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2012 No	e2e Materials, Inc.	Formaldehyde-Free, High-Strength Biocomposites from Sustainable Resources (abstract)	Ithaca	NY
2012 No	Ecology Coatings	Generally Recognized as Safe (GRAS) Coatings (abstract)	Warren	MI
2012 No	Electrovaya Inc.	Zero-Emission Production of the Green Lithium Ion SuperPolymer® Battery (abstract)	Malta	NY
2012 Yes	Elevance Renewable Sciences, Inc.	Using Metathesis Catalysis to Produce High-Performing, Green Specialty Chemicals at Advantageous Costs (summary and podcast)	Woodridge	IL
2012 No	Eli Lilly and Company	Grignards Going Greener by Continuous Processing (abstract)	Indianapolis	IN
2012 No	IBM Corporation	Catalytic Treatment of Hydrogen Peroxide in IBM Semiconductor Wastewater (abstract)	Hopewell Junction	NY
2012 No	IBM Corporation	Elimination of PFOS and PFOA in IBM Semiconductor Manufacturing Processes and Development of Photoacid Generators Free of Perfluoroalkyl Sulfonates (abstract)	Hopewell Junction	NY
2012 No	InfiChem Polymers, LLC	InfiGreen TM Polyols (abstract)	Sterling Heights	MI
2012 No	John, George; The City College of the City University of New York	Sustainable Molecular Design through Biorefineries: Biomass as an Enabling Platform for Safe Oil-Thickening Agents (Amphiphiles) (abstract)	New York	NY
2012 No	Johnson & Johnson Consumer Companies, Inc.; AkzoNobel Surface Chemistry LLC	NATRASURF TM PS-111 Polymeric Surfactant: Achieving Next Generation Mildness in Personal Care Products with a Reduced Environmental Footprint (abstract)	Skillman	NJ
2012 No	Kop-Coat, Inc.	<u>Tru-Core® Protection System for Wood</u> (abstract)	Pittsburg	PA
2012 No	LubriGreen Biosynthetics	Development and Commercialization of Oleic Estolide Esters (abstract)	Irvine	CA
2012 No	Mascal, Mark; University of California, Davis	Chemical Conversion of Biomass into New Generations of Renewable Fuels, Polymers, and Value-Added Products (abstract)	Davis	CA
2012 No	Masterchem Brands	KILZ MAX TM PRIMER-SEALER- STAINBLOCKER: Oil-Based Performance in a Water-Based Formula	Chesterfield	МО

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		with Less Environmental Impact (abstract)		
2012 No	NALCO	NALCO's APEX TM Program: Sustainable Technology for Paint Detackification (abstract)	Coraopolis	PA
2012 No	Novomer, Inc.	High-Performance Polyols from CO ₂ at Low Cost (abstract)	Waltham	MA
2012 No	NSR Technologies, Inc.	Electrodialysis and Chromatographic Separation Technology for Chlorine- Free Production of Potassium Hydroxide and Hydrochloric Acid (abstract)	Decatur	IL
2012 No	OPX Biotechnologies, Inc.	Producing Industrial Chemicals by Fermenting Renewable Feedstocks at a Lower Cost (abstract)	Boulder	СО
2012 No	Performance Chemicals, LLC	BURN-OUT TM Durable, Green, Nontoxic Flame Retardant (abstract)	Concord	NH
2012 No	Pfizer	New Green Commercial Biocatalytic Route to Atorvastatin Calcium, the Lipitor API (abstract)	Kalamazoo	MI
2012 No	Plata, Desirée L.; Duke University	Improved Resource Use in Carbon Nanotube Synthesis via Mechanistic Understanding (abstract)	Durham	NC
2012 No		Ethylene: A Feedstock for Fine Chemical Synthesis (abstract)	Columbus	ОН
2012 No	RPS Environmental Solutions, LP	Zero-VOC Cleaning and Remediation Technology (abstract)	Dallas	TX
2012 No	SiGNa Chemistry, Inc.	Sodium Silicide: A New Alkali Metal Derivative for Safe, Sustainable, and On-Demand Generation of Hydrogen (abstract)	New York City	NY
2012 No	Tandus Flooring	Ethos TM Modular Commercial Floor Coverings (abstract)	Dalton	GA
2012 No	U.S. Department of Energy, Pacific Northwest National Laboratory; Archer Daniels Midland Company	Propylene Glycol from Renewable Resources (abstract)	Richland	WA
2012 No	Verdezyne, Inc.	Biobased Adipic Acid for Renewable Nylon and Polyurethane Resins (abstract)	Carlsbad	CA
2012 No	Verenium Corporation	Pyrolase® Cellulase Enzyme Breaker as a Biodegradable Replacement for Corrosive Acids and Oxidizers in	San Diego	CA

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Hydraulic Fracturing Operations (abstract)		
2012 No	VH Biotechnology, Inc.	Bacteriocins: A Green, Antimicrobial Pesticide (abstract)	League City	TX
2012 Yes	Waymouth, Robert M.; Stanford University; Hendrick, James L.; IBM Almaden Research Center	Organic Catalysis: A Broadly Useful Strategy for Green Polymer Chemistry (summary and podcast)	Stanford	CA
2013 No	Advanced Biocatalytics Corporation (ABC)	Changing the Nature of Surfactants: Protein-Surfactant Synergists With Enhanced Cleaning Power and Bioremediation Abilities (abstract)	Irvine	CA
2013 No	AkzoNobel Surface Chemistry, LLC	<u>Hybrid Polymers (abstract)</u>	Chicago	IL
2013 No	AnCatt Inc.	Conductive Polymer Nanodispersion (CPND) and the Environmentally Friendly Heavy-Duty Anti-Corrosion Coating Platform Technology (abstract)	Newark	DE
2013 No	Armstrong World Industries	Breakthrough Coating for Ceiling Tiles (abstract)	Lancaster	PA
2013 No	AstraZeneca and Forest Laboratories	An Order of Magnitude Improvement in Sustainability through Core Application of Green Chemistry Principles: The Process Development of Avibactam (abstract)		
2013 Yes	Cargill, Inc.	Vegetable Oil Dielectric Insulating Fluid for High-Voltage Transformers (summary)	Brookfield	WI
2013 No	Dow Chemical Company, The	INFUSE TM Olefin Block Copolymers (abstract)	Midland	MI
2013 Yes	Dow Chemical Company, The	EVOQUE TM Pre-Composite Polymer Technology (summary)	Midland	MI
2013 No	DSM Biobased Products and BP Biofuels	Sugar to Diesel (Bio-Diesel from Microbial Oil) A Sustainable, Scalable and Affordable Option to Petroleum Diesel (abstract)	Columbia	MD
2013 No	DuPont and Goodyear	An Innovative Cell Factory and Bioprocess for Production of Biolsoprene TM Monomer (abstract)	Palo Alto	CA
2013 Yes	Faraday Technology, Inc.	Functional Chrome Coatings Electrodeposited from a Trivalent Chromium Plating Electrolyte (summary)	Clayton	ОН

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	FRX POLYMERS® Inc.	Polymeric, Non-Halogenated Flame Retardants with Broad Applicability in Multiple Industries (abstract)	Chelmsford	MA
2013 No	GeoTree Technologies, Inc.	GeoSpray TM Geopolymer Mortar System for Structural Rehabilitation of Sewer and Storm Water Infrastructure (abstract)	Lafayette	СО
2013 No	Infinite Enzymes	Infinite Enzymes: Low-Cost, Plant-Based Enzymes for Converting Cellulosic Biomass into Biofuels and Other Biobased Products (abstract)	State University	AR
2013 No	International Products Corporation	Temporary Assembly Lubricants for Rubber and Plastic Articles Using Renewable Oil-in-Water Emulsion Technology (abstract)	Burlington	NJ
2013 Yes	Life Technologies Corporation	Safe, Sustainable Chemistries for the Manufacturing of PCR Reagents (summary)	Austin	TX
2013 No	Lonza, Inc.	Dantogard 2000 Preservative: An Antimicrobial Technology with Reduced Environmental Impact for Hydraulic Fracturing of Shale Gas Plays (abstract)	Allendale	NJ
2013 No	Monsanto and Biosynthetic Technologies	Vistive® Gold Soybeans and Biosynthetic Technologies Enable Biodegradable, Non-Toxic, Renewable, and Economical Industrial Bio- Lubricants (abstract)	St. Louis	МО
2013 No	Multi-Chem, A Halliburton Service	The Use of Nitrate and Selected Live Strains of Nitrate Reducing Bacteria to Replace the Use of Biocide in Hydraulic Fracturing Operations (abstract)	Houston	TX
2013 No	Myriant Corporation	Expanding the Renewable Polymers "Tool Kit" with Bio-Succinic Acid (abstract)	Woburn	MA
2013 No	Myriant Corporation	Bio-based Chemicals from Low-cost Lignocellulosic Sugars (abstract)	Woburn	MA
2013 No	Nalco Champion, An Ecolab Company	eVerified ASP560: An Environmentally Friendly Corrosion Inhibitor (abstract)	Sugar Land	TX
2013 No	New Sky Energy, LLC	Sustainable Soda Ash for the Glass Industry (abstract)	Boulder	СО

Year Winner	· Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2013 No	Novozymes	Enzymes for the Production of Economical Sugars: A Linchpin of the Carbohydrate Economy (abstract)	Franklinton	NC
2013 No	Owens Corning	Sustainability and Owens Corning's EcoTouch TM Insulation Conversion (abstract)	Newark	ОН
2013 No	Subramaniam, Bala; University of Kansas	A Greener Hydroformylation Technology (abstract)	Lawrence	KS
2013 No	Systea Scientific, LLC	Easy (1-Reagent) Nitrate Method: A Green Alternative to Traditional USEPA Approved Nitrate Methods (abstract)	Oak Brook	IL
2013 No	Thames, S. F.; Rawlins, J. W.; The University of Southern Mississippi	Formaldehyde-Free Commercial-Grade Particleboards Based Solely on Soybean Protein Adhesive (abstract)	Hattiesburg	MS
2013 No	U.S. Department of Energy, Argonne National Laboratory	Upcycling Process That Converts Unsorted Plastic Waste into Functional Carbon Materials (abstract)	Argonne	IL
2013 No	Virent, Inc.	Converting Plant Sugars into Paraxylene for 100% Renewable, 100% Recyclable Packaging and Fibers (abstract)	Madison	WI
2013 No	Washing Systems LLC	Pure Solutions Chemical Line for Laundries (abstract)	Loveland	ОН
2013 Yes	Wool, Richard P.; U Delaware	Sustainable Polymers and Composites: Optimal Design (summary)	Newark	DE
2014 No	ACTA Technology Inc.	A Greener, Safer and More Efficient Antifreeze (abstract)	Boulder	СО
2014 No	Advanced Technology Materials, Inc. (ATMI), an Entegris company	The eVOLV TM System, a Clean, Sustainable Solution to Electronic Waste (abstract)	Danbury	СТ
2014 No	AkzoNobel Functional Chemicals, LLC	Improved Performance and HSE Profile of a Novel Stimulation Fluid for Oil and Natural Gas Wells (abstract)	Chicago	IL
2014 Yes	Amyris	<u>Farnesane: a Breakthrough Renewable</u> <u>Hydrocarbon for Use as Diesel and Jet</u> <u>Fuel (summary and podcast)</u>	Emeryville	CA
2014 No	Archroma	Earthcolors Technology (abstract)	Charlotte	NC
2014 No	Arizona Chemical Company, LLC	SYLVAROAD TM RP 1000 Performance Additive: A Sustainable, Pine-Based Additive to Enable High Re-Use of Reclaimed Asphalt Pavement (abstract)	Savannah	GA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Atsumi, Shota; University of California, Davis	Green Biological Production of Short and Medium Chain Esters (abstract)	Davis	CA
2014 No	Bay State Tech, LLC	Consumer Viable and Environmentally Friendly Solvent Replacements Developed From Food Grade Compounds (abstract)	Baltimore	MD
2014 No	Blair, Richard; University of Central Florida, The	The Scalable Production of Edge Functionalized Few Layer Graphene Oxide (abstract)	Orlando	FL
2014 No	Boeing Company, The; Boeing Research & Technology	Boegel Surface Activation Technology Suite (abstract)	Seattle	WA
2014 No	Copperhead Chemical Company Inc.	Novel, Effective, Safe Delivery System for Antimicrobial Agents Derived from Sustainable Vegetable Monoglycerides (abstract)	Tampa	FL
2014 No	Cytec Industries Inc.	Cylinderized Phosphine as Safer, More Environmentally Friendly Alternatives to Traditional Stored Product Fumigants (abstract)	Stamford	СТ
2014 No	Dow Chemical Company, The	Sustainable Microbial Control Treatments for Hydraulic Fracturing (abstract)	Buffalo Grove	IL
2014 No	Dow Chemical Company, The	BETAMATE TM and BETAFORCE TM Structural Adhesives Improve Automotive Fuel Efficiency and Emissions (abstract)	Midland	MI
2014 No	Dow Chemical Company, The	FORMASHIELD TM Formaldehyde Abatement Technology (abstract)	Collegeville	PA
2014 No	Dumesic, James A.; University of Wisconsin- Madison	Enzyme-Free Biomass Depolymerization Using GVL (abstract)	Madison	WI
2014 No	E&B Green Solutions	G-Clean® Line of Green Cleaning Products Designed to Clean Hydrocarbons Safely and Effectively (abstract)	Hermosa Beach	CA
2014 No	Ecolab	Environmentally Responsible Spore Control Program Through Effective Cleaning and Sanitizing of Heat Exchange Dairy Process Equipment (abstract)	Eagan	MN
2014 No	Genentech, Inc.	Targeted Chemotherapy for Solid Tumor Cancer Treatment (abstract)	South San Francisco	CA
2014 No	GreenLife Development	Naturama - Oil Surfactant, Green Degreaser and Cleaner (abstract)	Las Vegas	NV

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Gunasekaran, Sundaram; Yang, Jiang; University of Wisconsin-Madison; LignoCarbon	Green Approaches of Nanocomposite Material Synthesis for Energy Storage, Environmental Surveillance and Sustainable Food Systems (abstract)	Mountain View	CA
2014 No	Merck & Co., Inc.	An Innovative Catalytic Intramolecular Asymmetric Reductive Amination of a Dialkyl Ketone Enables a Highly Efficient, Green Synthesis of Suvorexant (MK-4305) (abstract)	Rahway	NJ
2014 No	Monsanto Company	Bt Technology, Transforming Insect Control (abstract)	St. Louis	МО
2014 No	Musolino, Bryan; University of Tennessee, Knoxville	Ultrasound Induced, Copper Mediated Homo-Coupling Using Polymer Supported Aryltrifluoroborates (abstract)	JBSA-FSH	TX
2014 No	MWV Specialty Chemicals, a division of MeadWestvaco Corporation	Evotherm® Warm Mix Asphalt Technology (abstract)	North Charleston	SC
2014 No	Novinda Corporation	Amended Silicates® HgX (abstract)	Denver	CO
2014 No	PPG Industries, Inc.	Polyethylene Terephthalate (PET) Derived Polymers for Coatings (abstract)	Pittsburgh	PA
2014 No	Pyun, Jeffrey; Glass, Richard; U of Arizona	Utilization of Elemental Sulfur as a New Chemical Feedstock for Polymeric Materials (abstract)	Tucson	AZ
2014 Yes	QD Vision, Inc.	Greener Quantum Dot Synthesis for Energy Efficient Display and Lighting Products (summary and podcast)	Lexington	MA
2014 Yes	Solazyme, Inc.	<u>Tailored Oils Produced from</u> <u>Microalgal Fermentation (summary and podcast)</u>	South San Francisco	CA
2014 Yes	Solberg Company, The	RE-HEALING TM Foam Concentrates— Effective Halogen-Free Firefighting (summary and podcast)	Green Bay	WI
2014 Yes	Stahl, Shannon S.; University of Wisconsin- Madison	Aerobic Oxidation Methods for Pharmaceutical Synthesis (summary and podcast)	Madison	WI
2014 No	Stepan Company	STEPOSOL® MET-10U. A Bioderived, Nonionic Surfactant Solution for Solvent Replacement: Source Reduction and Inherently Lower Health Hazards in Hard Surface Cleaning and Adhesive / Paint Removal (abstract)	Northfield	IL
2014 No	Terramera, Inc.	CIRKIL Biopesticide (abstract)	Buena Park	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2014 No	Washing Systems LLC	Green Detergents for Industrial Laundries (abstract)	Loveland	ОН
2014 No	Wyman, Charles; University of California, Riverside	UCR Co-Solv Technology Achieves Unprecedented Yields of Fuel Precursors from Lignocellulosic Biomass (abstract)	Riverside	CA
2015 No	A S Filtration TM , LLC	Pathex®/PathShield TM Antimicrobial Filter Media for the Control of Bacteria in Stormwater and Industrial Process Waters (abstract)	Hixson	TN
2015 No	Acid-Amine Technologies, Inc. (AAT)	Using Bioethanol as A Raw Material, To Produce: 1. SAFEN: A Low Cost Nematicide And Fungicide, Based on Ethyl Formate, Which Is Generally Regarded as Safe by the FDA, and Which Biodegrades Into Two Naturally Occurring Substances, with No Lasting Detrimental Effects to Air, Soil and Water; and 2. Ethyl Formate in a Second Development as a Suitable Raw Material for Propionic Acid and Acrylate Production (abstract)	Lake	NJ
2015 Yes	Algenol	The Algenol Biofuel Process: Sustainable Production of Ethanol and Green Crude (summary and picture)	Fort Myers	FL
2015 No	Barreto, Reynaldo; Purdue University North Central	Photocatylic Oxidations of Ethers with Visible/Near UV Light and the Development of a Continuous Flow Photoreactor (abstract)	Westville	IN
2015 Yes	Chen, Eugene YX.; Colorado State University	Greener Condensation Reactions for Renewable Chemicals, Liquid Fuels, and Biodegradable Polymers (summary and picture)	Fort Collins	СО
2015 No	Eastman Chemical Company	Eastman Omnia TM Solvent – Changing the Chemistry of Clean. New, Safe, Highly Effective Solvent for Cleaning Applications (abstract)	Kingsport	TN
2015 No	Ecolab	OxyCide TM Daily Disinfectant Cleaner (abstract)	Eagan	MN
2015 No	Ecolab	Environmentally Preferable Biocide For Water Treatment in Hydraulic Fracturing (abstract)	Eagan	MN
2015 No	Green Biologics, Inc. (GBI)	The Reinvention of Biomass Based n-Butanol for the Renewable Chemicals Industry (abstract)	Gahanna	ОН

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2015 No	Honeywell International	Low Global Warming, Non-VOC, Zero-ODP Molecule for Energy Efficient Polyurethane Foam Insulation Blowing Agent, Solvents, and Heat Transfer (abstract)	Morristown	NJ
2015 Yes	Hybrid Coating Technologies/Nanotech Industries	Hybrid Non-Isocyanate Polyurethane/Green Polyurethane TM (summary and picture)	Daly City	CA
2015 Yes	LanzaTech Inc.	<u>LanzaTech Gas Fermentation Process</u> (summary and picture)	Skokie	IL
2015 No	Licht, Stuart; George Washington University	A Solar Chemical Process to End Anthropogenic Global Warming: STEP Generation of Energetic Molecules (abstract)	Washington	DC
2015 No	Light Curable Coatings	High Performance Solvent-Free Coating Technology (abstract)	Valley View	ОН
2015 No	Linde North America	Development of Vapormate as a Replacement for Methyl Bromide Fumigants (abstract)	Murray Hill	NJ
2015 No	Modular Genetics, Inc.	Greener Synthesis of Surfactants (abstract)	Cambridge	MA
2015 No	Phyllom BioProducts	grubGONE!®, beetleGONE!® and boreGONE!®, Biological Insecticides with Low Impact on Humans and the Environment Yet Effective Against Destructive Beetle Pests (abstract)	Oakland	CA
2015 No	PROSOCO, Inc.	PROSOCO R-Guard: High- Performance Phthalate-Free Air and Water Resistive Barrier Sealant and Sealant Coating System (abstract)	Lawrence	KS
2015 Yes	Renmatix	The Plantrose® Process: Supercritical Water as the Economic Enabler of Biobased Industry (summary and picture)	San Francisco	CA
2015 No	Sagamore-Adams Laboratories, LLC	PLATech, Green Chemistry Universal Adhesive-Sealing Technology (abstract)	Chicago	IL
2015 No	Siluria Technologies, Inc.	Cleaner Transportation Fuels and Commodity Chemicals from Methane (abstract)	San Francisco	CA
2015 No	Sirrus, Inc.	1, 1-Disubstituted Alkenes (abstract)	Loveland	ОН
2015 Yes	Soltex (Synthetic Oils and Lubricants of Texas)	A Novel High Efficiency Process for the Manufacture of Highly Reactive Polyisobutylene Using a Fixed Bed	Houston	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		Solid State Catalyst Reactor System (summary and picture)		
2015 No	VF Corporation	VF Corporation: CHEM- IQ SM (abstract)	Greensboro	NC
2015 No	Voorhees, Kent; Colorado School of Mines	Bacteriophage-Based Bacterial Identification and Antibiotic Resistance Test (abstract)	Golden	СО
2015 No	ZAPS Technologies, Inc.	An Application of Hybrid Multispectral Analysis; Real-Time Wastewater Process Control (abstract)	Corvallis	OR
2015 No	Zhang, Yi-Heng Percival; Cell Free Bioinnovations Inc	Ultra-High Energy Density Metal-Free Sugar Biobattery (abstract)	Blacksburg	VA
2015 No	Zhang, Yi-Heng Percival; Virginia Tech	High-Yield and High-Purity Hydrogen Production from Carbohydrates via Synthetic Enzymatic Pathways (abstract)	Blacksburg	VA
2016 No	3M	Alternative to Sulfur Hexafluoride Enables up to 99% Greenhouse Gas Emission Reduction (abstract)	St. Paul	MN
2016 No	AECOM	Green Nanotechnology Product and Processes for Cleaning Up Contaminated Soil and Groundwater (abstract)	Atlanta	GA
2016 No	Aequor, Inc.	New Chemical Impedes Biofilm Formation and the Adhesion Of Foulers (abstract)	San Diego	CA
2016 No	Alliance Finishing	Plating on Plastics (abstract)	Oxnard	CA
2016 No	Biosynthetic Technologies	Estolides: A Low-Cost, High- Performance Renewable Fluid Certified for Motor Oil (abstract)	Irvine	CA
2016 No	Bristol-Myers Squibb	Discovery, Development and Implementation of New Chemical Technology toward a Novel Commercial Synthesis for the HIV- Attachment Inhibitor, BMS-663068 (abstract)	New Brunswick	NJ
2016 No	Calgon Carbon Corporation	FLUEPAC® activated carbon products for superior mercury control from flue gas and green re-use of coal combustion residuals (abstract)	Moon Twp	PA
2016 No	Calysta	Disruptive Methantropic Technology for Sustainable Food, Fuel and Products: Green Chemistry Innovation Enabling US Global Competitiveness	Menlo Park	CA

Year Winner	r Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
		in Low-Carbon, New Economy (abstract)		
2016 No	Catalytic Innovations, LLC	Catalytic Electrolysis for Renewable Fuel Generation from Organic Waste Water (abstract)	Adamsville	RI
2016 Yes	CB&I Albemarle	AlkyClean® Technology: An Inherently Safer Technology for the Production of Gasoline Alkylate (summary)		TX
2016 Yes	Chirik, Paul J., Princeton University	Catalysis with Earth Abundant Transition Metals (summary)	Princeton	NJ
2016 No	Clean Chemistry, Inc.	PeroxyMAX TM Oxidant Technology for Pollution Prevention in Industrial Sectors (abstract)	Boulder	СО
2016 No	Collaborative Aggregates, LLC	Delta S TM : An Environmentally Benign and Worker Safe Asphalt Rejuvenator (abstract)	Wilmington	MA
2016 No	Compact Membrane Systems, Inc.	Membrane Dehydration for Solvent Recovery and Reuse (abstract)	Newport	DE
2016 No	Covestro LLC	<u>Dream Production – CO₂ as a new</u> <u>building block for high-tech plastics</u> (abstract)	Pittsburgh	PA
2016 Yes	Dow AgroSciences LLC	Instinct® Technology – Making Nitrogen Fertilizers Work More Effectively for Farmers and the Planet (summary)	Indianapolis	IN
2016 No	Dow Chemical Company, The	Dow Polymeric Flame Retardant (abstract)	Midland	MI
2016 No	Dow Chemical Company, The	SOLDERON TM BP Lead-free Solder Plating Chemistry (abstract)	Marlborough	MA
2016 No	Dow Microbial Control	<u>KathonTM 7 Tl Antimicrobial for Water</u> <u>Treatment Applications (abstract)</u>	Collegeville	PA
2016 No	DuPont	Creation, Integration, and Engineering of the World's Largest Cellulosic Ethanol BioRefinery Production Platform (abstract)	Wilmington	DE
2016 No	Elinor Specialty Coatings; Bierwagen, Gordon; North Dakota State University; Akzo Nobel Aerospace Coatings	Mg rich primer for Chrome free protection of Aluminum and its alloys (abstract)	Fargo	ND
2016 No	Floral Soil LLC	Floral Soil: A Green Chemistry Alternative to Phenol Formaldehyde Foams for Floral & Horticulture Industries (abstract)	Everett	WA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Garg, Neil; University of California, Los Angeles	Catalytic Cross-Couplings Using a Sustainable Metal and Green Solvents (abstract)	Los Angeles	CA
2016 No	H-O-H Water Technology, Inc.	Cooling Tower Water Conservation and Chemical Treatment Elimination (abstract)	Palatine	IL
2016 No	Huang, Yu; University of California, Los Angeles	Surface Engineered High-performance Catalysts for Fuel Cell Applications (abstract)	Los Angeles	CA
2016 No	Instrumental Polymer Technologies, LLC	Evolution Polymerization To Produce Sustainable Polycarbonate Dendrimers (abstract)	Westlake Village	CA
2016 No	International Flavors & Fragrances Inc. (IFF)	A Greener Process for the Fragrance Veridian and Development/Implementation of IFF's Green Chemistry Tool (abstract)	Union Beach	NJ
2016 No	ISCA Technologies, Inc.	SPLAT® VERB: An Insecticide-Free, Green Repellent for Bark Beetle Pests of North American Forestry (abstract)	Riverside	CA
2016 No	Kiverdi	Carbon Engineering Platform (abstract)	Hayward	CA
2016 No	Lygos, Inc.	Integrated Production of Sustainable Biobased Malonic Acid for Significant Source Pollution Reduction, Cost, and Performance Advantages (abstract)	Emeryville	CA
2016 No	Marrone Bio Innovations	GRANDEVO® advanced bioinsecticides (abstract)	Davis	CA
2016 No	Marrone Bio Innovations	ZEQUANOX® (abstract)	Davis	CA
2016 No	Meredian Holdings Group (Meredian, Inc. and DaniMer Scientific)	Degradable Polymers for Fracking Applications (abstract)	Bainbridge	GA
2016 No	Midwest Refrigerants, LLC a Missouri Limited Liability Company	The Recovery of Organic Halides from Waste Streams by the Chemical Reaction of Hydrogen and Carbon Dioxide (abstract)	Shoreline	WA
2016 No	Miller, Stephen; U of Florida; U.S. Bioplastics, LLC	Replacing Packaging Plastics with Sustainable Bioplastics from Megacrop Waste (abstract)	Gainesville	FL
2016 Yes	Newlight Technologies, LLC	AirCarbon: Greenhouse Gas Transformed into High-Performance Thermoplastic (summary)	Irvine	CA
2016 No	Niwayama, Satomi; Texas Tech	Highly efficient and practical monohydrolysis of symmetric diesters (abstract)	Lubbock	TX

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Novvi, LLC (a joint venture of Amyris, Inc. and Cosan S.A. Industria e Comercio)	Renewable Oils for High Performance Lubricants (abstract)	Emeryville	CA
2016 No	Ohio Soybean Council	Bio-Derived Oligomer Technology to Replace Bis Phenol-A (BPA)-Based Thermoset Coatings: A Practical Solution for BPA-Free Metal Can Coatings for Beer, Beverage, and Food Containers (abstract)	Worthington	ОН
2016 No	OMNOVA Solutions Inc.	SunCryl HP 114, an Environmentally Friendly Release Coat (abstract)	Akron	ОН
2016 No	Pfizer	A Green, Energy Efficient, Chemoenzymatic Process to Manufacture Pregabalin (abstract)	San Diego	CA
2016 No	Procter & Gamble Company, and DuPont Company	Cold-Water Enzyme: Reducing the Environmental Footprint of Residential Laundry through Low Temperature Cleaning (abstract)	Palo Alto	CA
2016 No	Rennovia Inc.	Breakthrough Catalyst Technology Enables Cost Competitive Drop-in Bio- Based Nylons and Polyurethanes (abstract)	Santa Clara	CA
2016 No	Resinate Materials Group, Inc.	Converting Landfill Wastes to Multi- Functional Green Polyols for Coating Applications (abstract)	Plymouth	MI
2016 No	Rivertop Renewables	Rivertop Renewables - Sugar Oxidation Process (abstract)	Missoula	MT
2016 No	Sabatini, Jesse; US Army Research Laboratory (ARL)	Environmentally Friendly Colored Pyrotechnic Illuminants (abstract)	Aberdeen Proving Ground	MD
2016 No	SiGNa Chemistry, Inc.; Dixie Chemical Company, Inc.	Input and Waste Associated with the Isomerization of Linear Alpha Olefins (abstract)	New York	NY
2016 No	Sun Pharmaceuticals, Inc.	Environmental protection reagents from MSW: one-step quantitative resourcing municipal solid waste (abstract)	San Diego	CA
2016 No	UOP LLC, A Honeywell Company	A Feedstock Flexible Process to produce Diesel and/or Jet Fuel from Renewable Resources (abstract)	Des Plaines	IL
2016 Yes	Verdezyne	Renewable Nylon through Commercialization of BIOLON TM DDDA (summary)	Carlsbad	CA

Year Winner	Nomination Sponsor	Nominated Technology Title (abstract/summary)	City	St.
2016 No	Vestaron Corporation	SPEAR TM Insecticide: First Member of a New Class of Biopesticides which shows Efficacy comparable to Synthetic Insecticides (abstract)	Kalamazoo	MI
2016 No	Virox Technologies Inc.	Accel 5 RTU, an Accelerated Hydrogen Peroxide® (AHP®) based cleaner-disinfectant that provides a sustainable and safer choice for infection prevention and control (abstract)	Oakville	WI
2016 No	Vitaworks, LLC	Atom-Efficient Process for Producing Taurine (abstract)	North Brunswick	NJ