

Postdoctoral Program in Environmental Chemistry

| <u>Institution</u> | <u>Awardee</u> | <u>Department</u> | <u>Area of Interest</u> |
|---------------------------------------|---------------------|--|--|
| 2006 | | | |
| California Institute of Technology | Dianne K. Newman | Biology and Geological and Planetary Science | Mechanism of phototrophic Fe(II)-oxidation as a mechanism for metabolic depositing of ancient iron ores |
| Harvard University | Scot T. Martin | Division of Engineering and Applied Sciences | Tandem differential mobility measurements of mixed organic-sulfate particles of controlled and variable chemical properties, and their phase transitions |
| Harvard University | Eric N. Jacobsen | Chemistry and Chemical Biology | Design of greener chemical reactions with small molecules as efficient organocatalysts |
| Princeton University | Daniel M. Sigman | Geosciences | An isotopic study of denitrifiers and their respiratory nitrate reductases to understand the apparent ocean N imbalance |
| The University of Chicago | Norbert F. Scherer | Chemistry and the James Franck Institute | Novel noble metal clusters for enhanced light harvesting, photocatalytic activity, and multi-electron chemistry (H ₂ formation) |
| The University of Chicago | Hisashi Yamamoto | Chemistry | Develop a super Bronsted acid catalyst for a green chemistry alternative to metals in halogenated solvents |
| The University of Wisconsin-Madison | Frank N. Keutsch | Chemistry | High sensitivity in situ measurements and modeling of formaldehyde and (methyl)glyoxal photochemistry |
| University of California, Berkeley | Ronald Cohen | Chemistry | Atmospheric chemistry of reactive nitrogen: ozone aerosols and biosphere-atmosphere exchange |
| University of California, San Diego | Kimberly A. Prather | Chemistry and Biochemistry and Scripps Institution of Oceanography | Size resolved chemistry of aerosol particles ejected from the ocean and their effects on clouds |
| University of Washington, Seattle | Joel A. Thornton | Atmospheric Sciences | Elucidating the sources, transformations, and chemical and climate impacts of particulate organic matter using CIMS |
| 2005 | | | |
| Arizona State University | Ariel Anbar | Chemistry & Biochemistry | Isotopic compositions of bioessential and toxic metals in nature |
| California Institute of Technology | Jonas C. Peters | Chemistry and Chemical Engineering | Synthesis of efficient catalysts for solar water splitting systems |
| California Institute of Technology | John Eiler | Geological and Planetary Sciences | Fingerprinting of carbon dioxide isotopes and their distribution in nature |
| Carnegie Mellon University | Neil M. Donahue | Chemistry and Chemical Engineering | Oxidation pathways linking aerosols and their chemical precursors for human health and climate |
| Massachusetts Institute of Technology | Daniel G. Nocera | Chemistry | The chemistry of energy generation through solar power looking at O-O bond formation by radical coupling mechanisms |
| Princeton University | Anne M.L. Kraepiel | Chemistry | Molybdenum speciation with bioavailability and its effect on nitrogen fixation |
| University of California, Berkeley | Kevin R. Wilson | Chemical Sciences | Free radical reactions on catalytic surfaces related to aerosols and climate |
| University of California, Berkeley | Kristie A. Boering | Chemistry and Earth & Planetary Science | Molecular beam and isotopic studies of chemical mechanisms related to sources and sinks of major greenhouse gases |

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| University of Colorado at Boulder | G. Barney Ellison | Chemistry and Biochemistry | Molecular processes that underlie oxidation of organic aerosols with a novel mass spectrometer |
| University of Illinois at Chicago | Neil C. Sturchio | Earth and Environmental Sciences | Mapping of historical climate patterns using magneto-optical trap methods on radio Kr isotopes |
| 2004 | | | |
| California Institute of Technology | Janet G. Hering | Environmental Science & Engineering | Use of Vapor-phase Synthesized Iron(0) Nanoparticles to Examine Nanoscale Reactivity |
| Indiana University | Philip S. Stevens | School of Public and Environmental Affairs | Influence of Biogenic Emissions on Atmospheric Chemistry: Investigations of Free-Radical Chemistry in Forest Environments |
| Northwestern University | Franz M. Geiger | Chemistry and Institute for Environmental Catalysis | Chemical Binding and Heterogeneous Reactions of Environmentally Relevant Molecules at Liquid-solid and Gas-solid Interfaces |
| The Johns Hopkins University | David P. Goldberg | Chemistry | Design, Synthesis and Application of Transition Metal Catalysts for Environmental Dehalogenation Chemistry |
| The Ohio State University | Heather Allen | Chemistry | Atmospheric Aerosol Chemistry and Liquid Surfaces: Condensed-Phase Organics and Hydroxyl Radical Reactions |
| The Pennsylvania State University | William H. Brune | Meteorology | Investigating the Sensitivity of Atmospheric Ozone Formation to Nitrogen Oxides and Hydrocarbons |
| University of California at Irvine | Sergey Nizkorodov | Chemistry | Earth Atmospheric Environment: From Molecular Level Understanding to Global Scale Air Pollution Modeling |
| University of California, San Diego | Mark H. Thiemens | Chemistry and Biochemistry | New Mass Independent Isotope Effects to Study Global Atmospheric Chemistry, Climate Change, and the Origin of Life and the Solar System |
| University of Pennsylvania | Marsha I. Lester | Chemistry | Novel Studies of NO _x Chemistry in the Atmosphere and on Catalytic Surfaces |
| 2003 | | | |
| Georgia Institute of Technology | Paul H. Wine | Chemistry & Biochemistry | Atmospheric Chemistry in Low Temperature Environments |
| State University of New York at Stony Brook | Clare P. Grey | Chemistry | Sequestration of Pollutants in Natural and Engineered Systems |
| University of Connecticut | Britt A. Holmen | Civil & Environmental Engineering | Fine and Ultrafine Airborne Particles: Environmental Processes Affecting Particle Physical and Chemical Properties |
| University of North Carolina | Tomas Baer | Chemistry | Spectroscopic and Mass Spectrometric Studies of Organics in Tropospheric Aerosols |
| University of Wisconsin-Madison | Gilbert M. Nathanson | Chemistry | Surfactant Control of Heterogeneous Reactions in the Atmosphere |

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| 2002 | | | |
| Iowa State University | William S. Jenks | Chemistry | Desulfurization of Gasoline and Diesel Fuels by Extraction/ Adsorption of Dibenzothiophenes |
| Princeton University | G. Charles Dismukes | Chemistry | Links Between the Carbon and Oxygen Biogeochemical Cycles of the Earth Through Oxygenic Photosynthetic Organisms. |
| University of California, Davis | Anthony Wexler | Mechanical and Aeronautical Engineering | Atmospheric Aerosol Chemistry |
| University of Minnesota | Deborah L. Swackhamer | Environmental & Occupational Health | Environmental Estrogens and Antibacterials in Aquatic Systems: Occurrence, Persistence and Fate |
| University of Oklahoma | David A. Sabatini | Civil Engineering and Environmental Science | Natural and Anthropogenic Ground-Water Contamination: Engineered Remediation Technologies, Pollutant Natural Attenuation, and Technologies for Pollution Avoidance |
| Woods Hole Oceanographic Institution | Christopher M. Reddy | Marine Chemistry and Geochemistry | Molecular Isotope Approach for Identifying Bioaccumulating Halogenated Organic Compounds in Marine Biota |