NCER Funded
Science to Achieve Results (STAR)
Research Projects:

Tropospheric Ozone

NATIONAL CENTER FOR ENVIRONMENTAL RESEARCH

Office of Research and Development
U.S. Environmental Protection Agency

Tabular Query Results of NCER Program and Solicitation Information

72 Abstracts are listed

Number	Identifier	Abstract	Institution	Principal Investigator	Grant Amount	Proposed Start Date
1	R82-1256	Heterogeneous Gas-Liquid Interactions Relative to Tropospheric Ozone Formation-Destruction Processes	Boston College	Paul Davidowitz	$335,401	3 years

2	R826371	Research Consortium on Ozone and Fine Particle Formation in California and in the Northeastern United States	California Institute of Technology, University of California at Riverside, New Jersey Institute of Technology, University of California at Irvine, Carnegie-Mellon University, Oregon Graduate Institute of Science and Technology, Georgia Institute of Techno	Glen Cass, Richard Flagan and John Seinfeld; Janet Arey, Roger Atkinson, and Kimberly Prather; Joseph Bozzelli; Donald Dabdub; Cliff Davidson and Spyros Pandis; James Pankow; Armistead Russell	$3,000,000	April 15, 1998 - April 14, 2001
3	124LUB0458	Field Study Abstract: A Model of Ambient Air Pollution in Southeast Texas Using Artificial Neural Network Technology	Lamar University	Anita L. Riddle, Jack R. Hopper	none	none

4	R81-9720	Spectroscopic Investigations of Chemical Intermediates of Environimental Significance	Howard University	Prabhakar Misra	$260,785	3 years
5	R823319	Atmospheric Free Radical Measurements Related to Photochemical Oxidants in Urban Air	Portland State University	Thomas Hard	$276,323	October 1, 1995 - September 30, 1997
6	R826236	RO2 and HOx Radicals in Urban and Rural Air: Measurements of OH and RO2 Formation From Ozone-Alkene Reactions, and the Rate Coefficients of the Reactions of High Molecular Weight RO2 Radicals with HO2	University of California at Los Angeles	Suzanne Paulson, Stanley Sander	$440,323	January 15, 1998 - January 14, 2001
7	R825268	Pulmonary Toxicity of Particulate Matter and Ozone	New York University Medical Center	Lung Chi Chen	$172,446	November 18, 1996 - November 17, 1998

8	R824792	Quantification of Uncertainty in Air Quality Models Used for Analysis of Ozone Control Strategies	University of Colorado; University of California	Jana B. Milford and Robert A. Harley	$426,233	October 1, 1995 - September 30, 1998
9	R825261	Techniques for Standardization, Validation, and Measurement of Targeted Trace Gases Which Participate in Tropospheric Ozone Formation	National Center for Atmospheric Research	Eric C. Apel	$472,250	January 1, 1997 - December 31, 1999
10	R825259	Biogenic Ozone-Precursors From Mechanism to Algorithm	University of Colorado	Ray Fall	$379,889	November 15, 1996 - November 14, 1999
11	R825244	Impact of Ambient O3 on Physiological, Visual, and Growth Responses of Sensitive Eastern Hardwood Tree Species Under Natural and Varying Site Conditions	Pennsylvania State University	John Skelly, Donald D. Davis, Kim C. Steiner	$494,000	November 1, 1996 - October 31, 1999

12	R82-2453	Stratospheric Sulfate Aerosols and Heterogeneous Ozone Destruction	Tufts University	Mary Jane Shultz	$314,705	3 years
13	R825260	Integrating Observations and Modeling in Ozone Management Efforts	State University of New York - Albany	S. Trivikrama Rao	$367,697	November 15, 1996 - November 14, 1999
14	R826176	The First Robust RO2 Analyzer for Urban Air	Portland State University	Thomas M. Hard	$355,290	January 1, 1998 - December 31, 2000
15	R825256	Development, Evaluation, and Application of a Fast Time Response Mass Spectrometric Method for Quantitative Monitoring of Oxidant Precursors	Purdue University	Paul Shepson	$440,262	October 1, 1996 - September 30, 1999
16	GF-95-01227	Development of a Real Time Remote Sensing Network to Monitor Small Fluctuations in Urban Air Quality	Massachusetts Institute of Technology	Gary Adamkiewicz	$34,000	6/95

17	none	Sierra Ozone Studies	Center for Ecological Health Research (Cal-Davis)	John Carroll	none	6/30/96 ending date
18	R825821	Cost-benefit and Uncertainty Analysis for Ambient Ozone Reductions: Development and Demonstration of an Integrated Model and Framework	Resources for the Future, Georgia Institute of Technology	Jhih-Shyang Shih, Alan J. Krupnick, Armistead G. Russell	$300,000	October 1, 1997 - September 30, 2000
19	R824796	A Study of Ozone Concentration Gradients in Large Buildings, Including an Examination of Indoor Chemistry, Ventilation, Occupant Health Effects and Effects on HVAC Systems	Harvard University School of Public Health	John D. Spengler	$425,708	October 1, 1995 - September 30, 1998
20	R826410	Pulmonary Immunotoxicity of Ozone: Alterations in Cytokine Metabolism and the Cell Mediated Immune Response	New York University Medical Center	Richard B. Schlesinger	$410,026	April 7, 1998 - April 6, 2001

21	R825379	Modeling the Influence of Boundary-Layer Processes in Biogenic Hydrocarbon Mixing and Chemistry	University of Minnesota; National Center for Atmospheric Research	Kenneth J. Davis, Mary C. Barth and Chin-Hoh Moeng	$399,040	December 2, 1996 - December 1, 1999
22	R824789	Mechanistic Studies of Isoprene and Aromatic Hydrocarbons	University of North Carolina at Chapel Hill	Dr. Harvey E. Jeffries	$450,000	October 1, 1995 - September 30, 1998
23	R825252	Atmospheric Chemistry of Volatile Organic Compounds and their Atmospheric Reaction Products	University of California, Riverside	Roger Atkinson, Janet Arey and Ernesto C. Tuazon	$387,254	November 1, 1996 - October 31, 1999
24	R825388	Development and Application of an Air Quality Modeling System with Integrated Meteorology, Chemistry, and Emissions	Supercomputing Center of North Carolina	Aijun Xiu and Rohit Mathur	$372,830	October 1, 1996 - September 30, 1999
25	R826373	Investigations of Factors Determining the Occurrence of Ozone and Fine Particles in Northeastern USA	Penn State University	C. Russell Philbrick	$3,000,000	April 15, 1998 - April 14, 2001

26	none	Terrestrial - Forests	Center for Ecological Health Research (Cal-Davis)	John Carroll (Land, Air and Water Resources), Teresa Fan (Land, Air and Water Resources), Richard Higashi (Bodega Marine Laboratory)	215,256	6/30/95
27	R81-9765	Spectroscopic Studies of Radical Intermediates Involved in the Breakdown of HCFCs	Tulane University	Brent D. Koplitz	$214,847	3 years
28	R826238	Observation-Based Approaches to VOC Emissions Inventory Reconciliation And Control Strategies for Photochemical Smog	University of Southern California	Ronald C. Henry	$441,574	February 1, 1998 - January 31, 2001
29	R824096	Human Influence on Ozone in the Tropical Troposphere An Interpretation of Observations Using a Global Three-dimensional Model	Harvard University	Daniel J. Jacob, Jennifer A. Logan, Clarisa M. Spivakovsky, and Steven C. Wofsy	$415,798	October 1, 1995 - September 30, 1998

30	R825417	Measurements of Non-Methane Volatile Organic Compounds in the Lower Troposphere From Tethered Balloon and Kite Sampling Platforms by Internal Standard Calibration Using Ambient CFC Reference Compounds	University of Colorado	Detlev Helmig, John Birks, and Ben Balsley	$436,172	October 1, 1996 - September 30, 1999
31	R827028	Development and Evaluation of Modeling Techniques for the Study of Interactions between Urban and Point Source Plumes and Regional Atmospheres in the Formation of Secondary Pollutants	Georgia Institute of Technology and North Carolina State University	M. Talat Odman and D. Scott McRae	$468,324	January 15, 1999 - January 14, 2002
32	R826247	Transformations of Selected Organic Urban HAPs: Mechanistic and Modeling Studies to Identify Cancer and Non-Cancer Human Health Risk	University of North Carolina at Chapel Hill	Harvey E. Jeffries	$540,000	December 8, 1997 - December 7, 2000

33	R25221	Development of Techniques for Eddy-Correlation Measurements of Non-Methane Volatile Organic Compound Fluxed in the Atmosphere	University of Colorado	Detlev Helmig	$499,926	December 1, 1996 - November 30, 2001
34	R825222	Development of Lightweight Instrumentation for Measurement of Long-Lived Trace Gases	University of Colorado	Linnea M. Avallone	$466,074	December 1, 1996 - November 30, 2001
35	R825262	A Numerical Study of the Effects of Large Eddies on Trace Gas Measurements and Photochemistry in the Convective Boundary Layer	University of Alabama in Huntsville, National Oceanic and Atmospheric Administration, Oak Ridge, TN	Richard T. McNider, A.P Biazar, J.A. Song, and Jerold A. Herwehe	$275,828	February 3, 1997 - February 2, 2000
36	R826240	Real-Time Monitoring of Individual Atmospheric Aerosol Particles: Establishing Correlations Between Particle Size and Chemical Speciation	University of California, Riverside	Kimberly A. Prather	$547,000	February 1, 1998 - January 31, 2001

37	R825377	Kinetics of Semi-volatile Organic Compounds and Hydroxyl Radical Reactions	Indiana University	Ronald A. Hites	$356,212	October 14, 1996 - October 13, 1999
38	R823933	Multiplexed Diode-Laser Gas Sensor System for In Situ Multispecies Emissions Measurements	Stanford University	Prof. R.K. Hanson (PI) and Dr. D.S. Baer	$194,870	October 1, 1994 - September 30, 1996
39	R825430	Novel Catalysts for Lean-NOx Reduction by Methane	Tufts University	Maria Flytzani-Stephanopoulos	$479,533	December 5, 1996 - December 4, 1999
40	none	Mathematical Models of the Transport and Fate of Airborne Organics	Department of Chemical Engineering, Massachusetts Institute of Technology	Gregory J. McRae	$154,852.57	06/31/97 ending date
41	R825419	Emission and Fate of Biogenic Volatile Organic Compounds	Washington State University	Brian Lamb	$372,986	November 1, 1996 - October 31, 1999
42	R825253	Heterogeneous Chemistry of Sub-micron Aerosols Related to Tropospheric Oxidants	Boston College; Aerodyne Research, Inc.	Paul Davidovits, J.T. Jayne, D.R. Worsnop and C.E. Kolb	$440,343	October 1, 1996 - September 30, 1999

43	R825275	Asthma Indices Associated with Ambient Submicron Particles and Formaldehyde in Ambient Air Pollution	National Jewish Medical and Research Center	Kevin P. Fennelly	$178,865	December 1, 1996 - November 30, 1997
44	R82-1240-101	Economic and Social Impact of Employees Commute Requirements of the Federal Clean Air Act Amendments of 1990	Towson State University	Gordon Scott Bonham	$341,233	3 years
45	R823419	Lagrangian Modeling of Pollutant Dispersal in the Atmospheric Boundary Layer	CIRES, University of Colorado	Jeffrey C. Weil	$164,473	October 1, 1995 - September 30, 1997
46	R825258	The Chemical Kinetics and Mechanisms of Hydrocarbons Contributing to Ozone Production in the Atmosphere	University at Albany/SUNY and Harvard University	Kenneth L. Demerjian and James G. Anderson	$534,939	November 25, 1996 - November 24, 1999
47	R823333	Nitrogen Deposition onto Aqueous Media	The George Washington University	J. Houston Miller	$182,227	September 15, 1995 - September 14, 1998

48	104LUB2383, 104UCF2383	Photocatalytic Oxidation of NOx and Recovery as Nitric Acid	Lamar University, University of Central Florida	Daniel H. Chen, Thomas Ho, Clovis A. Linkous	none	none
49	R825254	Development and Evaluation of a Shallow Convection Parameterization for Mesoscale Models	Pennsylvania State University	Nelson Seaman	$449,000	October 1, 1996 - September 30, 1999
50	R825366	Orthogonal Background Suppression Technique for EPA's Field Infrared Data Processing	University of Denver	Xu Liu, A.W. Dybdahl, and F.J. Murcray	$248,743	October 1, 1996 - September 30, 1999
51	none	Cumulative and Integrative Biochemical Indicators	Center for Ecological Health Research (Cal-Davis)	Richard Higashi, Teresa Fan	none	6/30/96 ending date
52	R823186	Project to Further Research, Develop, and Apply a New Air Pollution Modeling System	Stanford University	Mark Z. Jacobson	$325,701	September 1, 1995 - August 31, 1998
53	R826372	Southern Center For the Integrated Study of Secondary Air Pollutants (SCISSAP)	Georgia Institute of Technology	William L. Chameides	$3,000,000	April 1, 1998 - March 31, 2001

54	none	SP-A and SP-D in Environmental Lung Disease	National Jewish Medical and Research Center	Robert J. Mason, M.D., James L. Cook, M.D., Dennis R. Voelker, Ph.D.	none	none
55	R826780	Cardiovascular Vulnerability to Particulate Pollution	Harvard School of Public Health	Diane R. Gold, Peter Stone, Augusto Litonjua; Richard Verrier, Joel Schwartz	$648,227	October 1, 1998 - September 30, 2001
56	R826765	Investigation of Indicators for Ozone-NOx-VOC Sensitivity	University of Michigan	Sanford Sillman	$306,407	October 1, 1998 - September 30, 2001
57	R825257	Oxygenated Volatile Organic Compounds Elucidation of Atmospheric Sources	University of Miami	Rod G. Zika	$481,115	October 21, 1996 - October 20, 1999
58	none	Life-Cycle Alternative Analysis of a Degreasing Solvent	University of Detroit Mercy	Kevin P. Olmstead, Ph.D., P.E., Reddy Mekala	none	none
59	R826654	Development of a Novel Condensation Nuclei Counter and Application to Ultrafine Particle Formation	Clarkson University1, Illinois Institute of Technology2	Philip K. Hopke1, Hwa-Chi Wang2	$393,657	October 1, 1998 - September 30, 2001

60	none	Nano-Scale Metal Oxide Particles as Reagents for Destruction and Immobilization of Hazardous Substances	Kansas State University	K.J. Klabunde	none	none
61	R826235	Investigations of the Chemistry of Secondary Aerosol Formation Using Thermal Desorption Particle Beam Mass Spectrometry	University of California, Riverside	Paul J. Ziemann	$294,762	December 1, 1997 - November 30, 2000
62	R826609	The Role of Locational Equilibria and Collective Behavior in Measuring the Benefits of Air Pollution Policies	Duke University	V. Kerry Smith and Holger Sieg	$199,948	September 1, 1998 - August 31, 2001
63	R826601	Modeling Ozone Flux to Forests Across an Ozone Concentration Gradient in the Sierra Nevada Mountains, CA.	University of California at Berkeley	Allen H. Goldstein and Jeanne A. Panek,	$621,367	August 1, 1998 - July 31, 2001

64	R827113	Investigation of Four-Dimensional Data Assimilation Methodologies for Air Quality Models	MCNCûNorth Carolina Supercomputing Center and Florida State University	Aijun Xiu, Xiaolei Zou, Rohit Mathur, and Adel Hanna	$371,737	October 1, 1998 û September 30, 2001
65	R826773	A Modeling Investigation of NHx Cycling in the Troposphere and Its Impact on Particulate Matter and Acidic Substances Budgets	MCNC-North Carolina Supercomputing Center	Rohit Mathur, Uma Shankar, Carlie J. Coats, John McHenry, and Marc Houyoux	$488,744	October 1, 1998 - September 30, 2001
66	R826239	Exploration of uncertainty in the simulation of power plant plume chemistry	University of Alabama in Huntsville	Noor V. Gillani	$ 450,000	January 3, 1998 - January 2, 2001
67	none	Fundamental Study on High Temperature Chemistry of Oxygenated Hydrocarbons as Alternate Motor Fuels and Additives	Chemical Engineering and Chemistry, New Jersey Institute of Technology	Joseph W. Bozzelli	$265,604.69	12/31/95 ending date

68	none	Laboratory Studies of Intermediate Steps in the Atmospheric Oxidation of Organic Compounds	Massachusetts Institute of Technology	Mario J. Molina	$67,000.00	06/30/99 ending date
69	none	Elementary Reaction Mechanism and Pathways for Atmospheric Reactions of Aromatics - Benzene and Toluene	New Jersey Institute of Technology	Joseph W. Bozzelli and Tsan Lay	$63,000.00	05/31/97 ending date
70	none	Process Air Purification by Biofiltration	University of Minnesota	W. J. Maier	none	none
71	none	Simultaneous Removal of Soot and NOx from the Exhaust of Diesel Powered Vehicles	New Jersey Institute of Technology; Montclair State University	H. Shaw and R. Pfeffer; John G. Stevens	$22,037.33	06/30/97 ending date
72	none	Kinetics, Reaction Path Analysis and Elementary Reaction Mechanism Development for Atmospheric Photochemical Oxidation of Aromatics and Oxygenated Aromatics	New Jersey Institute of Technology	Joseph W. Bozzelli and Tsan Lay	$100,000.00	June 1999 ending date

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Return to top of this document.

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