



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SAB-EC-86-019

February 18, 1986

MEMORANDUM

OFFICE OF  
THE ADMINISTRATOR

Subject: SAB Review of Papers Nominated for the 1985  
Scientific and Technological Achievement Awards

From: Kathleen Conway *Kathleen Conway*  
Executive Secretary  
Science Advisory Board

Thru: Terry F. Yosie  
Director  
Science Advisory Board

To: Donald Ehreth  
Acting Assistant Administrator  
for Research and Development

The Science Advisory Board's 1985 Scientific and Technological Achievement Awards Subcommittee chaired by Dr. James Whittenberger met January 29-30, 1986 and completed its review of the 92 papers transmitted to the Board for its recommendation. The Subcommittee judged the nominations in the light of the Statement of Principles and Processes (Revised 1983) attached to Dr. Bernard Goldstein's memorandum of August 8, 1985 to ORD Office Directors and Laboratory Directors. A copy of this was given to the Board.

A listing of the Subcommittee's recommendations for awards is attached (Attachment I). Briefly, of the 92 papers nominated, 24 are recommended for awards. A table showing the number of recommended awards by category is attached (Attachment II). A Subcommittee Roster is also provided (Attachment III).

The Subcommittee welcomed this opportunity to be of assistance to the Agency and to support your efforts to promote and recognize scientific and technological achievement by Agency employees. The Subcommittee had a number of comments and observations regarding this program which will be transmitted in a letter to you from the Chairman, Dr. Whittenberger.

Attachments (3)

cc: R. Cortesi  
L. Swaby  
C. Bishop  
T. Yosie  
J. Whittenberger

## 1985 Scientific and Technological Achievement Awards

Awards Recommended by SAB: Level I Awards (1)

<u>Category</u>	<u>Title and Author(s)</u>	<u>Laboratory</u>
TRANSPORT AND FATE	"Measurements of the Products of Atmospheric Photochemical Reactions in Laboratory Studies and in Ambient Air-Relationships Between Ozone and Other Products," <u>Atmospheric Environment</u> , 17, pp. 2382-2427, 1983 Dr. A. P. Altshuller	Atmospheric Sciences Research Laboratory/RTP

Awards Recommended by SAB: Level II Awards (4)

<u>Category</u>	<u>Title and Author(s)</u>	
ECOLOGY	"The Use of Microcosms for Evaluation of Interactions Between Pollutants and Microorganisms," <u>Advances in Microbial Ecology</u> , Vol. 7, C. C. Marshall (editor), pp. 133-215, 1984 Dr. P. H. Pritchard and Dr. A. W. Bourquin	ERL/Gulf Breeze
TRANSPORT AND FATE	"Organic Pollutant Sorption in Aquatic Systems," <u>Journal of Hydraulic Engineering</u> , 110(6), pp. 707-735, 1984 Dr. Samuel W. Karickhoff	ERL/Athens
HEALTH	"Binding of Chloroform to the Cysteine of Hemoglobin," <u>Chem.-Biol. Interactions</u> , 51, pp. 115-123, 1984 Dr. Michael A. Pereira, Mrs. Lina W. Chang, Mr. James L. Ferguson (ineligible author), and Dr. Daniel Couri (ineligible author)	HERL/CIN
HEALTH	"Postnatal Evaluation of Morphological and Functional Effects of Prenatal Exposure to Nitrofen in the Long-Evans Rat," <u>Journal of Toxicology and Environmental Health</u> , 11, pp. 679-690, 1983 Dr. Robert J. Kavlock and Dr. L. Earl Gray, Jr.	HERL/RTP

## 1985 Scientific and Technological Achievement Awards

Awards Recommended by SAB: Level III Awards (19)

<u>Category</u>	<u>Title and Author(s)</u>	<u>Laboratory</u>
ECOLOGY	"Dietary Accumulation of PCBs from a Contaminated Sediment Source by a Demersal Fish ( <u>Leiostomus Xanthurus</u> )," <u>Aquatic Toxicology</u> , Vol. 5, pp. 331-342, 1984 Mr. Norman I. Rubenstein, Mr. W. T. Gilliam and N. R. Gregory (ineligible author)	ERL/Narragansett
ECOLOGY	"Effect of Phenol Molecular Structure on Bacterial Transformation Rate Constants in Pond and River Samples," <u>Applied and Environmental Microbiology</u> , 45, pp. 1153-1155, 1983 Mrs. Doris F. Paris, Dr. N. Lec Wolfe, Dr. William C. Steen, and Mr. George L. Baughman (has excused himself from any monies awarded this paper)	ERL/Athens
ECOLOGY	"Validation of Exposure Models: The Role of Conceptual Verification, Sensitivity Analysis, and Alternative Hypotheses," <u>Aquatic Toxicology and Hazard Assessment: Sixth Symposium</u> , W. E. Bishop, R. D. Cardwell, and B. B. Heidolph (eds.), <u>Amer. Soc. Testing and Mat.</u> STP 802, Philadelphia, 1983 Dr. Lawrence A. Burns	ERL/Athens
ECOLOGY	"Morphological and Morphometrical Changes in Chloride Cells of the Gills of <u>Pimephales promelas</u> After Chronic Exposure to Acid Water," <u>Cell and Tissue Research</u> , 236, pp. 121-128, 1984 Mr. J. Howard McCormick and Dr. Richard L. Leion (ineligible author)	ERL/Duluth
ECOLOGY	"Early Life-Stage Toxicity Test with Tidewater Silversides ( <u>Menidia peninsulae</u> ) and Chlorine-produced Oxidants," <u>Environmental Toxicology and Chemistry</u> , Vol. 2, pp. 337-342, 1983 Mr. Larry R. Goodman, Dr. Douglas P. Middaugh, Mr. David J. Hansen, Ms. Geraldine M. Cripe, and Ms. Peggy K. Higdon Also nominated for Monitoring and Measurement Methods	ERL/Gulf Breeze
TRANSPORT AND DATE	"Source Apportionment Methods Applied to the Determination of the Origin of Ambient Aerosols That Affect Visibility in Forested Areas," <u>Atmospheric Environment</u> , Vol. 18, No 2, pp. 261-272, 1984 Mr. Robert K. Stevens, Dr. Thomas G. Duzbay, Dr. Charles W. Lewis, and Dr. Robert W. Shaw, Jr.	Atmospheric Sciences Research Laboratory/RTP

1985 Scientific and Technological Achievement Awards

Awards Recommended by SAB: Level III Awards (19)  
(con't)

<u>Category</u>	<u>Title and Author(s)</u>	<u>Laboratory</u>
TRANSPORT AND FATE	"Review: Natural Volatile Organic Substances and Their Effect on Air Quality in the United States," <u>Atmospheric Environment</u> , 17, pp. 2131-2165, 1983 Dr. A. P. Altshuller	Atmospheric Sciences Research Laboratory/KTP
TRANSPORT AND FATE	"Photolysis Rates of (2,4,5-Trichlorophenoxy) acetic Acid and 4-Amino-3,5,6-trichloropicolinic Acid in Natural Waters," <u>Journal of Agricultural and Food Chemistry</u> , 31, pp. 1065-1071, 1983 Dr. Richard G. Zepp, Mr. George Baughman, and Yuri I. Skurlatov (ineligible author)	ERL/Athens
MONITORING AND MEASUREMENT METHODS	"A Rapid Aquatic Toxicity Assay Utilizing Labeled Thymidine Incorporated in Sea Urchin Embryos," <u>Environmental Toxicology and Chemistry</u> , Vol. 3, pp. 631-636, 1984 Dr. Eugene Jackim and Ms. Diane Nacci (ineligible author)	ERL/Narragansett
MONITORING AND MEASUREMENT METHODS	"Identification of Dyes by Thermo Spray Ionization and Mass Spectrometry, Mass Spectrometry," <u>Analytical Chemistry</u> , Vol. 54, pp. 2604-2607, 1984 Dr. Leon D. Betowski and Dr. John Ballard (ineligible author)	EMSL/Las Vegas
MONITORING AND MEASUREMENT METHODS	"High-Resolution PCB Analysis: Synthesis and Chromatographic Properties of All 209 PCB Congeners," <u>Environ. Sci. Technol.</u> , Vol 18, No. 6, pp. 468-476, 1984 Dr. Michael D. Mullin, Ms. Cynthia M. Pochini (ineligible author), S. McCrindle (ineligible author), M. Ronkes (ineligible author), S. H. Safe (ineligible author), and L. M. Safe (ineligible author)	ERL/Duluth
MONITORING AND MEASUREMENT METHODS	"A Seven-Day Life-Cycle Cladoceran Toxicity Test," <u>Environmental Toxicology and Chemistry</u> , Vol 3 pp. 425-434, 1984 Dr. Donald I. Mount and Mrs. Teresa J. Norbeg-King	ERL/Duluth
HEALTH	"Mutagenicity of Cyclopenta-fused Isomers of Benz(a)anthracene in Bacterial and Rodent Cells and Identification of the Major Rat Liver Microsomal Metabolites," <u>Cancer Research</u> , 44, pp. 4993-5003, 1984 Dr. Stephen Nesnow, Ms. Sharon Leavitt, Mr. Robert Easterling, Mr. Randall Watts, Dr. Larry Claxton, Ineligible Authors As Follows: Stephanie H. Toney, Dr. Avram Gold, Dr. R. Sangaiah, Dr. Glen E. Toney, James Wiley, and Phillip Fraher	Health Effects Research Laboratory/KTP

## 1985 Scientific and Technological Achievement Awards

Awards Recommended by SAB: Level III Awards (19)  
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<u>Category</u>	<u>Title and Author(s)</u>	<u>Laboratory</u>
HEALTH	"A Model for Some of the Effects of an Externally Applied Electric Field on Charged Membrane Constituents," <u>International Journal of Quantum Chemistry: Quantum Biology Symposium 11</u> , pp. 249-256, 1984 Dr. James R. Rabinowitz	Health Effects Research Laboratory/RTP
HEALTH	"An Analysis of the Spectra of Genetic Activity Produced by Known or Suspected Human Carcinogens," <u>Mutation Research</u> , 134, pp. 89-111, 1984 Dr. Michael D. Waters, Neil E. Garrett (ineligible author), H. Frank Stack (ineligible author), and M. R. Gross (ineligible author)	Health Effects Research Laboratory/RTP
HEALTH	"Scaling the Physiological Effects of Exposure to Radiofrequency Electromagnetic Radiation: Consequences of Body Size," <u>Int. J. Radiat. Biol.</u> , 46, pp. 387-397, 1984 Dr. Christopher J. Gordon and Dr. J. Homer Ferguson (ineligible author)	Health Effects Research Laboratory/RTP
HEALTH	"Growth and Development of Mice Offspring After Irradiation In Utero with 2,450-MHz Microwaves," <u>Teratology</u> , 30, pp. 393-402, 1984 Dr. Ezra Berman, Mr. Hershell B. Carter, and Mr. Dennis E. House	Health Effects Research Laboratory/RTP
HEALTH	"Postnatal Developmental Alterations Following Prenatal Exposure to the Herbicide 2,4-Dichlorophenyl-p-nitrophenyl Ether: A Dose Response Evaluation in the Mouse," <u>Toxicology and Applied Pharmacology</u> , 67, pp. 1-14, 1983 Dr. Leon Earl Gray, Jr., Dr. Robert J. Kavlock, Dr. Neil Chernoff, Mr. Joe Ostby, and Ms. Janet Ferrell (ineligible author)	Health Effects Research Laboratory/RTP
HEALTH	"An Extended Evaluation of an In Vivo Teratology Screen Utilizing Postnatal Growth and Viability in the Mouse," <u>Teratogenesis, Carcinogenesis, and Mutagenesis</u> , 4, pp. 403-426, 1984 Dr. Leon Earl Gray, Jr. and Dr. Robert J. Kavlock	Health Effects Research Laboratory/RTP

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