

Steven D. Hoyt, Ph.D.

Environmental Analytical Service
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EDUCATION

- 1968-1972 University of California, Irvine, California
B.A., 1972.
Major: Chemistry
- 1972-1973 Northern Arizona University, Flagstaff, Arizona Graduate School
Major: Organic Chemistry
- 1973-1975 Oregon State University, Corvallis, Oregon: M.A. Chemistry, 1976.
Major: Analytical Chemistry. Minor: Physical Chemistry.
Thesis: Design of a Chemiluminesce Photometer and its Application to Trace Chromium Analysis.
- 1979-1982 Oregon Graduate Center, Beaverton, Oregon: Ph.D., 1982. Environmental Science and Engineering. Dissertation: Air-Sea Exchange of Atmospheric Trace Gases.

EXPERIENCE

- 1984- Environmental Analytical Service, San Luis Obispo, California
- Started an environmental laboratory and consulting business specializing in GC/MS methods of analysis of trace organic compounds in air, water, and hazardous waste. Services include analysis of ambient air samples for chlorinated hydrocarbons, hydrocarbon speciation, sulfur gases and fixed gases including methane and carbon dioxide. Other services include ambient air sampling for organics, indoor air pollution and the use of GC/MS in the measurement of pollutants and toxic organic contaminants in air, source and gas samples.
- 1989-1992 California Polytechnic State University, San Luis Obispo, California
- Worked as an instructor for the Department of Chemistry and the Department of Civil and Environmental Engineering. Classes taught include: General Chemistry, Introductory Environmental Engineering for Civil Engineers, Environmental Chemistry, Quantitative Analysis, Air Testing and Measurements, and Wastewater Analysis. Also taught EPA short course on Air Sampling Methods.

1982-1984 Oregon Graduate Center, Beaverton, Oregon

Worked as a Postdoctoral Research Associate on GC/MS and GC method development and evaluation for the measurement of trace gases in air and water samples. Air samples were collected in SUMMA canisters and water samples were collected special gas tight glass bottles on the NOAA oceanographic vessel the Discoverer. Samples were analyzed using a specially developed purge/cryo-trap module and fused silica capillary column connected directly to a Finnigan 4021 GC/MS. This technique was used to measure organosulfur and organochlorine compounds at the ppt level

1979-1982 Oregon Graduate Center, Beaverton, Oregon

Worked as a graduate research assistant on a packed column GC/MS technique to measure organosulfur and organochlorine compounds in air and water samples. Air samples were collected in specially passivated stainless steel containers on an oceanographic vessel at various global sites and brought to OGC for analysis. This data was used in a model to estimate global biological sources for these compounds.

1976-1978 California Regional Water Quality Control Board Palm Desert, California

Set-Up and managed a certified water analysis laboratory equipped to perform analytical tests on surface water and on domestic sewage samples. Responsibilities also include the development of a quality assurance program for the lab, and to evaluate QA programs in dischargers. Assisted Project engineers with sample collection and sample collection methodology.

1975 Environmental Protection Agency, Corvallis, Oregon

Worked as a Research Chemist on the development of a sensitive method for the determination of sulfate and total sulfur in plant and water samples.

Publications

- 01 S.D. Hoyt & J.D. Ingle, Jr., "Simple Cooled Photomultiplier Housing." Anal. 48, 232 (1976).
- 02 S.D. Hoyt & J.D. Ingle, Jr., "A Chemilluminescence Analyzer and its Application to Trace Cr (III) Analysis." Anal. Chem. Acta 87, 163 (1976).
- 03 R.A. Rasmussen, M.A.K. Kahil, & S.D. Hoyt, "Atmospheric Carbonyl Sulfide (OCS): Techniques for Measurement in Air and Water", Chemosphere 11, 869 (1982).
- 04 R.A. Rasmussen, M.A.K. Kahil, & S.D. Hoyt, "Oceanic Sources of Carbonyl Sulfide (OCS)" Atmospheric Environment 16 1591 (1982).
- 05 R.A. Rasmussen, M.A.K. Kahil, R. Gunawardena, & S.D. Hoyt, "Atmospheric Methyl Iodide (CH₃I)", Journal of Geophysical Research 87, 3086 (1982).
- 06 R.A. Rasmussen, M.A.K. Kahil, & S.D. Hoyt, "Methane and Carbon Monoxide in Snow" Journal of the Air Pollution Control Association 32, 176 (1982).
- 07 R.A. Rasmussen, M.A.K. Kahil, & S.D. Hoyt, "Trace Gases in Snow and Rain", Precipitation Scavenging, Dry Deposition, and Resuspension, Pruppacher et al., Editors, pp. 1301-1314 (1983), 4th International Conference, Santa Monica, California, November 29-December 3, 1982.
- 08 R.A. Rasmussen, M.A.K. Kahil, & S.D. Hoyt, "Atmospheric Chloroform (CHCl₃): Ocean-Air Exchange and Global Mass Balance", Tellus 35B, 266 (1983).
- 09 S.D. Hoyt, & R.A. Rasmussen, "Determining Trace Gases in Air and Seawater", Mapping Strategies in Chemical Oceanography, ACS Advances in Chemistry Series 209, American Chemical Society, Washington, D.C., 1985.
- 10 S.D. Hoyt, & R.A. Rasmussen, "Separation and Determination of Polynuclear Aromatic Hydrocarbons and Benzo[a]pyrene." Method 102. Methods of Air Sampling and Analysis, J.P. Lodge, Editor, Lewis Publications, Inc. 1989.
- 11 S.D. Hoyt and L.H. Hoyt, "Measurement of Dimethyl Sulfide in Air and Seawater" Air Chemistry Studies Over the Gulf of Mexico, NOAA Tech. Memo ERL1ESG-29, Boulder, CO, 1988.
- 12 F. Paringo, C. Nagamoto, S.D. Hoyt, H. Bravo, "The Investigation of Air Quality and Acid Rain over the Gulf of Mexico," Atmospheric Environment, 24A pp. 109-123, 1990.

- 13 F. Paringo, C. Nagamoto, B. Kopewiez, ... , S.D. Hoyt, "Geographical and Temporal Variations of Sulfate Aerosols Over the Pacific Ocean", Acta Oceanographic Sawa, 10 pp. 17-72, 1991.
- 14 S.D. Hoyt, "San Joaquin Valley/ AUSPEX Collaborative Air Quality Study - Monitoring of Volatile Organic Compounds, Analytical Methodology", Technical Team Report, Paul Solomon Editor. 1992
- 15 S.D. Hoyt, V. Longacre, M. Straupe, "Measurement of Oxygenated Hydrocarbons and Reduced Sulfur Gases by Full-Scan Gas Chromatography/Mass Spectrometry (GC/MS): EPA Method TO-14", Sampling and Analysis of Airborne Pollutants, p. 133, Edited by Eric Wineger, L.H. Keith, Lewis Publications, 1993.
- 16 S.D. Hoyt, G. Maygen, J. Neirtot, "A New Technique for Volatile Organic Compounds VOC's in Wastewater and Air", WEF Specialty Conference Odors / VOC's, Jackaonville, FL., March 1994.
- 17 E.M. Fujita and S.D. Hoyt, et. al "Interlaboratory Comparison for Analysis of Hydrocarbons During the Coastal Oxidant Assessment for Southeast Texas (Coast) Project", AWMA, 1994.
- 18 S.D. Hoyt, "Using EPA TO-15 Full Scan and SIM for Volatile Organic Compound Analysis." AWMA Specialty Conference, Air Toxics Measurements, San Francisco, CA, October, 2002.