

SCIENTIFIC LEADERSHIP

I was interviewed by the American Chemical Society Newservice, Washington, DC, in April 1997 about a story for press release on the risks to the public from recent Mississippi River flooding, due to my ACS National Meeting presentations on transport of toxic organic compounds on the suspended sediment in the Mississippi River, and my 1993 Mississippi River Flood manuscript. The reporter recorded the interview, asking about possible dangers from these compounds and impact to the Gulf of Mexico. Although transport of toxic organic compounds increased dramatically during the 1993 Flood, I put this in perspective using the fact that fecal coliforms from breached sewage treatment plants are a greater immediate health risk, and that the organic nutrient-rich soils carried by flooding may have an eventual favorable impact on agricultural fields.

I have been invited to speak at several national meetings, workshops, and conferences on colloid science about my work on natural colloids in surface waters--their particle sizes, organic carbon, nitrogen, and carbon/nitrogen ratios, and the comparison between colloid and suspended sediment transport by mass and organic carbon.

My MS/MS work led to consultations with other environmental chemists on specific techniques for fast, sensitive analysis of ultra-trace toxic compounds, including an invited international lecture at the Fourth Annual International Workshop on Tandem Mass Spectrometry (Environmental Applications Session), in Lake Louise, Calgary, Canada, November 21-24, 1991, entitled "Selected environmental applications of tandem mass spectrometry."

SCIENTIFIC AND PUBLIC SERVICE

CURRENT MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American Chemical Society (ACS), Environmental Division, 1980 - present

Society of Environmental Toxicology and Chemistry (SETAC), 1995 - present

Rocky Mountain Regional Chapter of SETAC, 1996-present

American Society for Mass Spectrometry (ASMS), 1990 - present

American Geophysical Union (AGU), 1993 - present

American Water Works Association (AWWA), 1996 - present

Rocky Mountain Mass Spectrometry Discussion Group 1986 - present

Rocky Mountain Regional Chapter of SETAC (Society of Environmental Toxicology and Chemistry), **Board of Directors**, June 1996-May 1998

Rocky Mountain Mass Spectrometry Discussion Group: Executive Committee, 1986 to present.

Rocky Mountain Chromatography Discussion Group/AAS: evening lecture, entitled, "Tandem Mass Spectrometric Analysis", April 30, 1986.

Rocky Mountain Mass Spectrometry Discussion Group: Editor of Newsletter, 1986-1987.

Chairman of a session at 28th Rocky Mountain Conference, August 1986.

TECHNICAL PRESENTATIONS

- 1 Donelan (**Rostad**), C. E., and Smith, G. D., 1976, Are there structured solutions containing only hexane, water, and 2-propanol? ACS Rocky Mountain Regional Meeting, Laramie, Wyo., (journal article published).
- 2 **Rostad**, C. E., Pereira, W. E., and Taylor, H. E., 1981, Organic contaminants in ash, water, and sediment samples associated with Mount St. Helens, 1980 volcanic eruption: 23rd Rocky Mountain Conference, Denver, Colorado (journal article published).
- 3 Pereira, W. E., **Rostad**, C. E., Steinheimer, T. R., and Johnson, S. M., 1981, Characterization of organic compounds associated with weathered, surface-retorted oil shales using capillary gas chromatography/mass spectrometry/ computer techniques: 23rd Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 4 **Rostad**, C. E., and Pereira, W. E., 1982, Characterization of organic compounds in groundwater contaminated by coal-tar wastes using gas chromatography/mass spectrometry/computer techniques: 24th Rocky Mountain Conference, Denver, Colorado, published paper resulted.

- 5 McKnight, D., Pereira, W. E., **Rostad**, C. E., and Stiles, E., 1982, Toxicity of spent oil shale leachate to a blue-green alga: 24th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 6 **Rostad**, C. E., and Pereira, W. E., 1983, Partitioning of polycyclic coal tar constituents in a two-phase ground-water system: 25th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 7 Pereira, W. E., and **Rostad**, C. E., 1983, Ground-water contamination by hazardous chemical compounds derived from wood-treatment processes: 25th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 8 **Rostad**, C. E., Pereira, W. E., and Ratcliff, S. M., 1984, Bonded-phase extraction column isolation and determination of organic compounds in ground water at a hazardous waste site near Pensacola Florida: 26th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 9 Pereira, W. E., and **Rostad**, C. E., 1984, Geochemical investigations of hazardous wastes in the subsurface environment at an abandoned wood-treatment facility near Pensacola, Florida: 26th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 10 **Rostad**, C. E., and Pereira, W. E., 1985, Application of n-octanol/water partition coefficients in the evaluation of a coal-tar contaminated, two-phase ground-water system: 27th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 11 Pereira, W. E., 1985, Contamination of a surficial aquifer by polychlorinated dibenzo-p-dioxins: 27th Rocky Mountain Conference, Denver, Colorado, published paper resulted.
- 12 **Rostad**, C. E., and Pereira, W. E., 1986, Bioconcentration of creosote compounds in snails obtained from Pensacola Bay, near an onshore hazardous-waste site: ACS 8th Rocky Mountain Regional Meeting, Denver, Colorado, published paper resulted.
- 13 Pereira, W. E., **Rostad**, C. E., Updegraff, D. M., Bennett, J. L., 1986, Anaerobic microbial transformations of azaarenes in ground water at hazardous waste sites: ACS 8th Rocky Mountain Regional Meeting, Denver, Colorado, published paper resulted.
- 14 Pereira, W. E., Updegraff, D. M., **Rostad**, C. E., and Bennett, J. L., 1986, Microbial transformations of azaarenes in aquifers contaminated by wood-treatment wastes. Chapman Conference in Microbial Process in the Transport, Fate, and In-Situ Treatment of Subsurface Contaminants, October 1-3, 1986, Showbird, Utah (Journal article published).
- 15 Updegraff, D. M., Bennett, J. L., Pereira, W. E., and **Rostad**, C. E., 1986, Oxidation of azaarenes to hydroxyazaarenes by anaerobic bacteria: 43rd Annual Meeting of the Society of Industrial Microbiology, August 10-15, 1986, San Francisco, California, (journal article published).
- 16 **Rostad**, C. E., and Pereira, W. E., 1987, Determination of halogenated organic compounds in estuarine biota and sediments by chemical ionization tandem mass spectrometry. Surface Water Toxics Technical Meeting, February 2-4,, 1987, Lakewood, Colorado (journal article published).
- 17 Pereira, W. E., **Rostad**, C. E., and Chiou, C. T., 1987, Contamination of estuarine water, biota, and sediments by halogenated organic compounds: A field study. Surface Water Toxics Technical Meeting, February 2-4, 1987, Lakewood, Colorado (journal article published).
- 18 **Rostad**, C. E., and Pereira, W. E., 1987, Characterization of halogenated organic compounds in estuarine biota and sediments by chemical ionization tandem mass spectrometry: 35th ASMS Conference on Mass Spectrometry and Allied Topics, May 24-27, 1987, Denver, Colorado (published paper resulted).
- 19 **Rostad**, C. E., and Pereira, W. E., 1987, Daughter ion spectra of selected chlorinated compounds: 29th Rocky Mountain Conference, August 1987, Denver, Colorado (published paper resulted).
- 20 Pereira, W. E., **Rostad**, C. E., and Chiou, C. T., 1987, Distribution of halogenated organic compounds in estuarine water, biota, and sediments: 194th ACS National Meeting, Environmental Division, August 30 - September 4, 1987, New Orleans, Louisiana (published paper resulted).
- 21 Pereira, W. E., **Rostad**, C. E., Updegraff, D. M., and Bennett, J. L., 1988, Microbial transformations of azaarenes in creosote-contaminated soil and ground water: Laboratory and field studies: Proceedings of the International Conference Water and Wastewater Microbiology, February 8-11, 1988, Newport Beach, California (journal article published).
- 22 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J., 1988, Analysis of selected herbicides and their metabolites in river water samples by chemical ionization tandem mass spectrometry: 36th ASMS Conference on Mass Spectrometry and Applied Topics, June 5-10, 1988, San Francisco, California (published paper resulted).

- 23 Leiker, T. J., Pereira, W. E., and **Rostad**, C. E., 1988, GC/MS analysis of hydrophobic organic contaminants in catfish from the Mississippi River: 36th ASMS Conference on Mass Spectrometry and Applied Topics, June 5-10, 1988, San Francisco, California.
- 24 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J., 1988, Analysis of selected herbicides and their metabolites by chemical ionization tandem mass spectrometry: 30th Rocky Mountain Conference, July 31 - August 5, 1988, Denver, Colorado (journal article published).
- 25 Pereira, W. E., **Rostad**, C. E., and Chiou, C. T., 1988. Bioconcentration of hydrophobic organic compounds in stream biota in the Calcasieu River Estuary, Louisiana: Fourth Toxic Substances Hydrology Technical Meeting, Phoenix, Arizona, September 25-30, 1988.
- 26 Pereira, W. E., **Rostad**, C. E., and Leiker, T. J., 1988. Preliminary assessment of the fate and transport of synthetic organic agrochemicals in the Lower Mississippi River and its Tributaries: Fourth Toxic Substances Hydrology Technical Meeting, Phoenix, Arizona, September 25-30, 1988 (journal article published).
- 27 Pereira, W. E., **Rostad**, C. E., and Leiker, T. J., 1988. Distribution of agrochemicals in the Lower Mississippi River and its Tributaries: International Symposium on the Fate and Effects of Toxic Chemicals in Large Rivers and their Estuaries; Quebec City, Canada, October 10-14, 1988 (journal article published).
- 28 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J. 1989, Mass spectrometric analysis of some chloroalkyl phosphate flame retardants: 37th ASMS Conference on Mass spectrometry and Applied Topics, May 21-26, 1989, Miami Beach, Florida.
- 29 Leiker, T. J., Pereira, W. E., and **Rostad**, C. E., 1989, A reconnaissance study of the distribution of halogenated organic compounds in catfish from the lower Mississippi River and its tributaries: 37th ASMS Conference on Mass Spectrometry and Applied Topics, May 21-26, 1989, Miami Beach, Florida.
- 30 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J., 1989, Determination of halogenated organic compounds in Mississippi River suspended sediments by negative ion chemical ionization: 31st Rocky Mountain Conference, July 30 - August 4, 1989, Denver, Colorado.
- 31 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J. 1989, Mass spectrometric analysis of some chloroalkyl phosphate flame retardants: 31st Rocky Mountain Conference, July 30 - August 4, 1989, Denver, Colorado.
- 32 Leiker, T. J., Pereira, W. E., **Rostad**, C. E., and Barnes, C., 1989. A reconnaissance study of the distribution of halogenated organic compounds in catfish from the lower Mississippi River and its tributaries: 31st Rocky Mountain Conference, July 30 - August 4, 1989, Denver, Colorado.
- 33 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J., 1989, Determination of halogenated organic compounds in Mississippi River suspended sediment by negative ion chemical ionization: U.S. Geological Survey 2nd National Symposium on Water Quality, November 12-17, 1989, Orlando, Florida.
- 34 Leiker, T. J., Pereira, W. E., **Rostad**, C. E., and Barnes, C., 1989. A reconnaissance study of the distribution of halogenated organic compounds in catfish from the lower Mississippi River and its tributaries: U.S. Geological Survey 2nd National Symposium on Water Quality, November 12-17, 1989, Orlando, Florida.
- 35 Pereira, W. E., **Rostad**, C. E., and Leiker, T. J., 1989. Occurrence, distribution, fate and transport of synthetic organic compounds in the lower Mississippi River and its major tributaries: U.S. Geological Survey 2nd National Symposium on Water Quality, November 12-17, 1989, Orlando, Florida.
- 36 **Rostad**, C. E., Pereira, W. E., and Leiker, T. J., 1989, Analysis of selected herbicides and their metabolites in river water samples by chemical ionization tandem mass spectrometry: 1989 International Chemical Congress of Pacific Basin Societies, December 17-22, 1989, Honolulu, Hawaii.
- 37 Pereira, W. E., **Rostad**, C. E., and Leiker, T. J., 1989, Synthetic organic agrochemicals in the lower Mississippi and its major tributaries: occurrence, fate and transport: 1989 International Chemical Congress of Pacific Basin Societies, December 17-22, 1989, Honolulu, Hawaii.
- 38 Leiker, T. J., Pereira, W. E., and **Rostad**, C. E., 1989, Analysis of halogenated organic compounds in water, fish, and sediment samples collected near and industrial outfall in the Calcasieu River estuary, Louisiana by GC/MS: 1989 International Chemical Congress of Pacific Basin Societies, December 17-22, 1989, Honolulu, Hawaii.

- 39 **Rostad**, C. E., and Field, J. C., 1990, Analysis of trifluoroethyl derivatives of sulfophenylcarboxylates by gas chromatography/negative ion chemical ionization/mass spectrometry: 32nd Rocky Mountain Conference on Analytical Chemistry, July 28-August 2, 1990, Denver, Colorado.
- 40 **Rostad**, C. E., and Pereira, W. E., 1990, Distribution of selected anthropogenic organic compounds on suspended sediment in the Mississippi River, 200th ACS National Meeting, August 26-31, 1990, Washington, D.C.
- 41 **Rostad**, C. E., and Pereira, W. E., 1991, Distribution of selected anthropogenic organic compounds on suspended sediment in the Mississippi River, U.S.G.S. Toxic Substances Hydrology Technical Meeting, Monterey, California, March 11-15, 1991.
- 42 Field, J.A., Barber, L.B., II, Leenheer, J. A., **Rostad**, C.E., and Thorn, K.A., 1991, Persistence of linear alkylbenzenesulfonates and their metabolites in sewage-contaminated ground water, U.S.G.S. Toxic Substances Hydrology Program--Technical Meeting, Monterey, California, March 11-15, 1991.
- 43 **Rostad**, C.E., 1991, Use of Gas Chromatography/Negative Ion Chemical Ionization/Mass Spectrometry in the Ultra-trace analysis of halogenated organic compounds in suspended sediment from the Mississippi River, 39th ASMS Conference on Mass Spectrometry and Applied Topics, May 19-24, 1991, Nashville, Tennessee.
- 44 **Rostad**, C.E., and Pereira, W.E., 1991, Distribution of selected anthropogenic organic compounds on suspended sediment in the Mississippi River, 33rd Rocky Mountain Conference on Analytical Chemistry, July 28 - August 1, 1991, Denver, Colorado.
- 45 **Rostad**, C.E., 1991, Selected environmental applications of tandem mass spectrometry. *Invited international* lecture at the Fourth Annual International Workshop on Tandem Mass Spectrometry (Environmental Applications Session), in Lake Louise, Calgary, Canada, November 21-24, 1991.
- 46 Ellis, G.E., and **Rostad**, C.E., 1992, In situ application of semipermeable-membrane devices for monitoring bioconcentration of lipophilic contaminants in the Upper Mississippi River, 34th Rocky Mountain Conference on Analytical Chemistry, August 2-6, 1992, Denver, Colorado.
- 47 **Rostad**, C.E., and Monsterleet, S.G., 1993, Distribution of organic carbon in the Mississippi River: Comparison of silt and colloidal transport, 25th Annual Meeting, Mississippi River Research Consortium, April 22-23, 1993, La Crosse, Wisconsin.
- 48 Leenheer, J.A., and **Rostad**, C.E., 1993, Transport of suspended organic matter in the Mississippi River, 25th Annual Meeting, Mississippi River Research Consortium, April 22-23, 1993, La Crosse, Wisconsin.
- 49 Schmitt, C.J., Huckins, J.N., Petty, J.D., **Rostad**, C.E., and Ellis, G.S., 1993, Halogenated organic contaminants in the Upper Mississippi River: Detection and measurement with a passive accumulator, 25th Annual Meeting, Mississippi River Research Consortium, April 22-23, 1993, La Crosse, Wisconsin.
- 50 **Rostad**, C.E., and Leiker, T.J., 1993, Comprehensive analysis of Mississippi River samples by GC/PCI/MS/MS and GC/NCI/MS, 41st ASMS Conference on Mass Spectrometry and Applied Topics, May 30-June 4, 1993, San Francisco, California.
- 51 Leenheer, J.A., and **Rostad**, C.E., 1993, Transport of suspended organic matter in the Mississippi River, 1993 American Society of Limnology and Oceanography/ Society of Wetland Scientists, May 30 - June 3, 1993, Edmonton, Canada.
- 52 Huckins, J.N., Petty, J.D., Lebo, J.A., Gibson, V.L., Clark, R.C., Schmitt, C.J., Poulton, B.P., **Rostad**, C.E., and Ellis, G.S., 1993, Development of lipid-containing semipermeable membrane devices for estimation of time-weighted water concentrations of bioavailable organic contaminants, 23rd International Symposium on Environmental Analytical Chemistry, June 14-16, 1993, Jekyll Island, Georgia.
- 53 **Rostad**, C.E., 1993, Colloidal distribution and transport of organic carbon in the Mississippi River, 1991-1992, 205th ACS National Meeting, March 28-April 2, 1993, Denver, Colorado.
- 54 **Rostad**, C.E., and Monsterleet, S.G., 1993, Distribution of organic carbon in the Mississippi River: Comparison of silt and colloidal transport, 205th ACS National Meeting, March 28-April 2, 1993, Denver, Colorado.
- 55 **Rostad**, C.E., Ellis, G.E., Schmitt, C.J., Huckins, J.N., and Petty, J.D., 1993, In situ application of semipermeable-membrane devices for monitoring lipophilic contaminants in the Mississippi River, 205th ACS National Meeting, March 28-April 2, 1993, Denver, Colorado.

- 56 **Rostad**, C.E., and Monsterleet, S.G., 1993, Comparison of silt and colloidal transport of organic carbon in the Mississippi River, 35th Rocky Mountain Conference on Analytical Chemistry, July 25-29, 1993, Denver, Colorado.
- 57 Ellis, G.E., and **Rostad**, C.E., 1993, Isolation of lipophilic organic contaminants along the Upper Mississippi River using a semipermeable membrane device, U.S.G.S. Toxic Substances Hydrology Program--Technical Meeting, September 20-24, 1993, Colorado Springs, Colorado.
- 58 **Rostad**, C.E., Monsterleet, S.G., Bishop, L.M., Ellis, G.S., 1993, Organic carbon associated with suspended silt and colloid from the Mississippi River and some of its tributaries, July 1991-May 1992, U.S.G.S. Toxic Substances Hydrology Program--Technical Meeting, September 20-24, 1993, Colorado Springs, Colorado.
- 59 Schmitt, C.J., Huckins, J.N., Petty, J.D., **Rostad**, C.E., and Ellis, G.E., 1993, Halogenated organic contaminants in the Upper Mississippi River: Test of a passive accumulator for use in the biomonitoring of environmental status and trends (BEST) program, Society of Environmental Toxicology and Chemistry, 14th Annual Meeting, November 14-18, 1993, Houston, Texas.
- 60 Schmitt, C.J., Huckins, J.N., Petty, J.D., **Rostad**, C.E., and Ellis, G.E., 1993, Halogenated organic contaminants in the Upper Mississippi River: Test of a passive accumulator, 55th Annual Midwest Fish and Wildlife Conference, December 12-15, 1993, St. Louis, Missouri.
- 61 **Rostad**, C.E., and Monsterleet, S.G., 1994, Comparison of halogenated organic compound transport associated with silt and colloid in the Mississippi River, 207th ACS National Meeting, March 13-17, 1994, San Diego, California.
- 62 **Rostad**, C.E., 1994, Transport of toxic organic compounds associated with suspended sediment in the Mississippi River: before, during and after the 1993 flood, 1994 Spring Meeting, American Geophysical Union, May 23-27, 1994, Baltimore, Maryland.
- 63 **Rostad**, C.E., Leenheer, J.A., and Monsterleet, S.G., 1994, Transport of toxic organic compounds associated with silt and colloid in the Mississippi River, American Water Resources Association Annual Summer Symposium, June 26-29, 1994, Jackson Hole, Wyoming.
- 64 **Rostad**, C.E., 1995, Organic colloid as a mode of transport for toxic halogenated organic compounds in the Mississippi River, American Chemical Society, 209th National Meeting, Anaheim, California, April 2-6, 1995.
- 65 Huckins, J.N., Petty, J.D., Orazio, C.E., Lebo, J.A., Gibson, V.L., Clark, C.N., **Rostad**, C.E., Gala, W.R., and Kaiser, E.M., 1995, Effects of temperature, concentration and biofouling on semipermeable membrane device (SPMD) sampling rates in water, Second SETAC World Congress, Vancouver, British Columbia, Canada, November 5-9, 1995.
- 66 Rees, T.F., Whitaker, R. Leenheer, J.A., **Rostad**, C.E., Thorn, K.A., Barber, L.B., 1996, Attenuation and fractionation of nitrogen and organic carbon beneath an artificial recharge research basin, Water Reuse 96, San Diego, California, February 25-28, 1996.
- 67 **Rostad**, C.E., Rutherford, D.W., and Daniel, S.R., 1996, Colloid phase and particulate phase Koc's as a function of water solubility for selected halogenated organic compounds in the Mississippi River, American Chemical Society, 13th Rocky Mountain Regional Meeting, Lakewood, Colorado, June 9-12, 1996.
- 68 **Rostad**, C.E., Rees, T.F., Daniel, S.R., and Noyes, T.I., 1996, Evaluation of Large-Scale Tangential Flow Ultrafiltration for Isolation of Colloids from Samples of River Water, American Chemical Society, 212th ACS National meeting, Orlando, Florida, Aug. 25-29, 1996.
- 69 Petty, J., Huckins, J., Orazio, C., Lebo, J., Echols, K., Meadows, J., Gale, R., Gibson, G., Clark, R., Prest, H., Moring, B., **Rostad**, C., 1997, Semipermeable membrane devices: Status and overview, 4th Annual International SPMD Workshop and Symposium, Kansas City, Missouri, June 11-13, 1997.
- 70 Huckins, J.N., Petty, J.D., Orazio, C.E., Lebo, J.A., Gale, R.W., Meadows, J.C., Echols, K.R., Gibson, V.L., Clark, R.C., Prest, H., **Rostad**, C.E., 1997, SPMD Theory and Performance: Current State of the Art, 4th Annual International SPMD Workshop and Symposium, Kansas City, Missouri, June 11-13, 1997.
- 71 **Rostad**, C.E., Garbarino, J.R., 1997, Carbonate and Organic Carbon Associated with Colloids in the Mississippi River and Major Tributaries, 39th Rocky Mountain Conference on Analytical Chemistry, Denver, Colorado, August 3-7, 1997.

- 72 Stricos, B.J., **Rostad**, C.E., Barber, L.B., 1997, Fate and Transport of Total Organic Halide in a Wetland Area, 39th Rocky Mountain Conference on Analytical Chemistry, Denver, Colorado, August 3-7, 1997.
- 73 **Rostad**, C.E., Rees, T.F., Daniel, S.R., Noyes, T.I., 1997, Particle sizes of colloids in the Mississippi River, American Chemical Society, 214th National meeting, Las Vegas, Nevada, September 7-11, 1997.
- 74 **Rostad**, C.E., Thorn, K.A., Noyes, T.I., 1997, Organic carbon associated with colloids from groundwater impacted by reclaimed water, American Chemical Society, 214th National meeting, Las Vegas, Nevada, September 7-11, 1997.
- 75 Thorn, K.A., **Rostad**, C.E., Noyes, T.I., 1997, Spectroscopic characterization of colloids in a ground recharge system for treated sewage effluent, American Chemical Society, 214th National meeting, Las Vegas, Nevada, September 7-11, 1997.
- 76 Barber, L.B., Brown, G.K., Leenheer, J.A., Noyes, T.I., **Rostad**, C.E., and Thorn, K.A., 1997, Organic contaminants that persist during aquifer storage and recovery of reclaimed water in Los Angeles County, California, American Water Resources Association, Annual Conference and Symposium on Conjunctive Use of Water Resources: Aquifer Storage and Recovery, Long Beach, California, October 19-23, 1997.

RENDERING SCIENTIFIC JUDGEMENT

Technical reviewer for Environmental Science and Technology, November 1997 and in the past.

Technical colleague reviews done for NRP, NWQL, NWQL Methods, Research and Development, and San Diego Subdistrict.

Education Committee, Colorado Section, American Chemical Society: Judge for the 1991 Colorado Undergraduate Research Symposium, at the U.S. Air Force Academy, April 20, 1991.

Technical Evaluation Committee for NWQL mass spectrometer service contract, Fall 1993.

Reviewed USGS WRD Merit proposal, May 1989.

LECTURESHIPS AND OTHER ACADEMIC SERVICE

National Water Quality Laboratory Seminar Series, "Isolation, particle size, and organic composition of colloids from ground and surface water", September 1997.

Colorado School of Mines, Chemistry/Geochemistry Department Seminar: "Comparison of partition coefficients in a coal-tar contaminated, two-phase ground-water system", November 1985.

Colorado School of Mines, Chemistry/Geochemistry Department Seminar: "Distribution of selected anthropogenic organic compounds on suspended sediment in the Mississippi River", October 1990.

Colorado School of Mines, Chemistry/Geochemistry Department Seminar: "Disinfection byproducts in the environment", January 1993.

University of Colorado (Boulder) INSTAAR Seminar: "Organic carbon in the Mississippi River: Comparison of silt and colloidal transport", October 1993.

Colorado School of Mines, Chemistry/Geochemistry Department Seminar: "Organic carbon in the Mississippi River: Comparison of silt and colloidal transport", October 1993.

"Organic carbon in the Mississippi River: Comparison of silt and colloidal transport", USGS-WRD, Water Resources Research Brown Bag Seminar, Denver Federal Center, Colorado, October 19, 1993.

"Tandem mass spectrometry analysis", NWQL seminar, March 1986.

"Application of n-octanol/water partition coefficients in the evaluation of a coal-tar contaminated, two-phase ground-water system", NWQL seminar, June 1985.

"Examination of a hazardous waste site at American Creosote Works, Pensacola, Florida", NWQL seminar, March 1984.

Graduate students advised:

Monsterleet, Stephanie G., 1993, *Sediment/water partition coefficients of selected organic compounds in the Mississippi River*, M.S. thesis T-4296, Colorado School of Mines, Chemistry/Geochemistry Department.

Ellis, Geoffrey E., 1994, *In situ application of a semipermeable membrane device for the monitoring of lipophilic organic contaminants*, M.S. thesis T-4413, Colorado School of Mines, Chemistry/Geochemistry Department.

Barbara Stricos Martin, in preparation, *Effects of wetlands on disinfection by-products and their formation potentials*, M.S. thesis, Colorado School of Mines, Chemistry/Geochemistry Department.

TECHNICAL TRAINING PROVIDED

Advisor for six students of NTC course on Statistical Methods for Environmental Data Analysis (G0754), NWQL version, 1995-1996.

"Organic Contaminants in Water-Mississippi River Research", People's Republic of China Delegation Tour, NWQL, May 9, 1990, 1 hr.

"Understanding Tandem Mass Spectrometry," On-the-Job Training Course, National Training Center, Denver, March 1, 1988, 45 minutes.

SPECIAL ASSIGNMENTS

Detailed to Wyoming District for consulting on interpretation of dioxin data for IRP deadline, February 1993.

At USGS Surface Water Toxics Meeting in Denver, February 2-4, 1987, spoke on halogenated organic compounds in estuarine biota and sediments by chemical ionization tandem mass spectrometry.

At USGS Toxics in Surface Water Meeting in Denver, January 6-9, 1986, reported on application of our Triple-Stage Quadrupole (GC/MS/MS/DS) to the contaminants in the Calcasieu River.

At USGS Toxic Waste--Groundwater Contamination Meeting, Tucson, Arizona, March 20-24, 1984, explained the bonded-phase extraction column technique.

At USGS Pensacola site Meeting in Denver, November 30, 1983, talked about capillary fringe results.

OTHER TECHNICAL ACTIVITIES

Helped to organize "Isolation, Fractionation, Characterization, and Reactivity of Environmental Colloids" symposium for the 214th National Meeting of the ACS, Environmental Division, Las Vegas, Nevada, September 7-11, 1997.

Proposed and helped organize a Symposium for SETAC's 2nd SETAC World Congress, Vancouver, 1996, "Geochemistry of Large Rivers", which was combined into another larger symposium.

PCBs in Bed sediments, Upper Mississippi River Sediment Workshop, Estes Park, Colorado, March 15-17, 1995.

OUTREACH AND INFORMATION TRANSFER

By reading Groundwater Digest (an international e-mail news group), I respond to questions when relevant with disinfection by-product, trihalomethane, MTBE, SPMD, pesticide, and PCB information using the USGS non-biased approach so well-regarded. I reference the MTBE Interagency Assessment of Oxygenated Fuels often.

Richard Yost and Jodie Johnson (University of Florida, Gainesville), pioneers in tandem mass spectrometry, are using my MS/MS techniques as examples of solving difficult analytical problems by MS/MS in their ASMS short courses.

My journal article (Rostad, C. E., and Pereira, W. E., 1986, Kovats and Lee retention indices by gas chromatography/mass spectrometry for organic compounds of environmental interest: *Journal of High Resolution Chromatography and Chromatography Communications*, v. 9, p. 328-334) has been included in a laboratory manual at the University of Leeds, Department of Fuel and Energy.

A non-technical summary of my ACS papers (on Silt and Colloid Transport in the Mississippi River, and Colloidal Organic Carbon in the Mississippi River) (Abst. 53, 54) for the 205th ACS National Meeting in Denver in March 1993 was requested by the ACS news service to be made available to reporters because the research is of important public interest.

I am on the **Board of Directors** of the **Rocky Mountain Regional Chapter of SETAC**. This local group is new--just getting started. It will provide an opportunity to meet and influence other environmental scientists in the region, and provide contacts with other federal agencies

I assisted in addressing technical review comments for "Semipermeable membrane devices (SPMDs) for the concentration and assessment of bioavailable organic contaminants in aquatic environments" by Huckins and others, Chapter 34 in Aquatic Toxicology, Lewis Publishers, 1996, p.625-655, because Geoffrey Ellis, the USGS author, was unavailable. This collaboration with Huckins, Petty, Tillitt (NBS, now Biological Resources Division of USGS) has been very rewarding.

Campbell Elementary School Science Fair Judge, February 21, 1998, Arvada, Colo.

Campbell Elementary School Science Fair Judge, February 8, 1997, Arvada, Colo.

I contributed NRP-related articles to the NWQL Newsletter, March 1997.

Volunteer for American Chemical Society, Colorado Section, "Chemistry is Fun" demonstration at the Children's Museum, November 1996.

Volunteer for USGS booth, WRD display area, at News 4 Education Expo (1996), Colorado Convention Center, Denver, April 1996.

Campbell Elementary School, Arvada, Colorado, October 1993, described hydrology, background required, current USGS hydrology studies and field work involved, to sixth graders, stressing the need to continue mathematics.

Gage Elementary School, Rochester, Minnesota, April 1993, described hydrology, background required, current hydrology studies and field work involved, to second and sixth graders (one hour each).

Campbell Elementary School, Arvada, Colorado, April 1993, explained Chemist careers for their Career Night.

Thornton High School, "Women Making History--Creative Options for Young Women", I served as the Science Discussion Leader, April 5, 1986.

HONORS, AWARDS, RECOGNITION, ELECTED MEMBERSHIPS

USGS-WRD Certificate of Appreciation,

for assisting in NTC Training Course, Feb. 1996

U.S. Geological Survey Performance Award Feb. 1988

American Chemical Society Scholarship (University of Wyoming), Sept. 1975