

## ESD Publications 1995-2002

### Sorted by year, pub type, first author

1995 | [1996](#) | [1997](#) | [1998](#) | [1999](#) | [2000](#) | [2001](#) | [2002](#)

#### 1995 Book Sections

1. Hill, W.R., A.D. Steinman, and B.H. McFarland, BOOK SECTION: *Periphyton and Bryophytes*. 1995, North American Benthological Soc. p. 1-4.
2. Hunsaker, C.T., BOOK SECTION: *Managing Cumulative Impacts: A Key to Sustainability?*, in *Improving Interaction Between Sciences and Policy in the Gulf of Maine Region*, N.R.C. Ocean Studies Board, Editor. 1995, National Academy Press: Washington, DC. p. 67-83.

#### 1995 Conference Papers

3. Bevelhimer, M.S. CONFERENCE PAPER: *Smallmouth bass habitat use and movement patterns with respect to reservoir thermal structure*. in *49. Annu. Conf. Southeastern Association of Fish and Wildlife Agencies*. 1995. Nashville: SEAWFA.

#### 1995 Journal Articles

4. Barnett, M.O., L.A. Harris, R.R. Turner, T.J. Henson, R.E. Melton, and R.J. Stevenson, Water Air Soil Pollut. ARTICLE: *Characterization of Mercury Species in Contaminated Floodplain Soils*. Water Air Soil Pollut., 1995. **80**(1-4): p. 1105-1108.
5. Bevelhimer, M.S., Fisheries ARTICLE: *Recent Advances in Contaminant Assessment Offer Proactive Alternatives for Managing Contaminated Fisheries*. Fisheries, 1995. **20**(12): p. 6-10.
6. Broecker, W.S., S. Sutherland, W. Smethie, T.H. Peng, and G. Ostlund, Glob. Biogeochem. Cycle. ARTICLE: *Oceanic Radiocarbon - Separation of the Natural and Bomb Components*. Glob. Biogeochem. Cycle., 1995. **9**(2): p. 263-288.
7. Butler, M.J., J.H. Hunt, W.F. Herrnkind, M.J. Childress, R. Bertelsen, W. Sharp, T. Matthews, J.M. Field, and H.G. Marshall, Mar. Ecol.-Prog. Ser. ARTICLE: *Cascading disturbances in Florida bay, USA: Cyanobacteria blooms, sponge mortality, and implications for juvenile spiny lobsters *Panulirus argus**. Mar. Ecol.-Prog. Ser., 1995. **129**(1-3): p. 119-125.
8. Chambers, R.C., K.A. Rose, and J.A. Tyler, Neth. J. Sea Res. ARTICLE: *Recruitment and recruitment processes of winter flounder, *Pleuronectes americanus*, at different latitudes: Implications of an individual-based simulation model*. Neth. J. Sea Res., 1995. **34**(1-3): p. 19-43.
9. **Cooper, L.W.**, J.M. Grebmeier, I.L. Larsen, C. Solis, and C.R. Olsen, Scie. Total Environ. ARTICLE: *Evidence for re-distribution of super(137)Cs in Alaskan tundra, lake, and marine sediments*. Scie. Total Environ., 1995. **160-161**: p. 295-306.
10. Das, S., T.R. Curlee, C.G. Rzy, and S.M. Schexnayder, Resour. Conserv. Recycl. ARTICLE: *Automobile Recycling in the United-States - Energy Impacts and Waste Generation*. Resour. Conserv. Recycl., 1995. **14**(3-4): p. 265-284.
11. Deangelis, D.L., M. Loreau, D. Neergaard, P.J. Mulholland, and E.R. Marzolf, Ecol. Model. ARTICLE: *Modeling Nutrient-Periphyton Dynamics in Streams - the Importance of Transient Storage Zones*. Ecol. Model., 1995. **80**(2-3): p. 149-160.
12. Dees, C., D. Ringelberg, T.C. Scott, and T.J. Phelps, Appl. Biochem. Biotechnol. ARTICLE: *Characterization of the Cellulose-Degrading Bacterium *Ncimb-10462**. Appl. Biochem. Biotechnol., 1995. **51-2**: p. 263-274.
13. Derry, J.M.J., P. Wiedemann, P. Blair, Y. Wang, J.A. Kerns, V. Lemahieu, V.L. Godfrey, J.E. Wilkinson, and U. Francke, Genomics ARTICLE: *The Mouse Homolog of the Wiskott-Aldrich Syndrome Protein (*Wasp*) Gene Is Highly Conserved and Maps near the Scurfy (*Sf*) Mutation*

- on the X-Chromosome. *Genomics*, 1995. **29**(2): p. 471-477.
14. Dunbar, N.W., G.K. Jacobs, and M.T. Naney, *Contrib. Mineral. Petrol.* ARTICLE: *Crystallization Processes in an Artificial Magma - Variations in Crystal Shape, Growth-Rate and Composition with Melt Cooling History.* *Contrib. Mineral. Petrol.*, 1995. **120**(3-4): p. 412-425.
  15. Faulkner, J.S., Y. Wang, and G.M. Stocks, *Phys. Rev. B* ARTICLE: *Electrons in extended systems.* *Phys. Rev. B*, 1995. **52**(24): p. 17106-17111.
  16. Garten, C.T., *J. Environ. Radioact.* ARTICLE: *Dispersal of Radioactivity by Wildlife from Contaminated Sites in a Forested Landscape.* *J. Environ. Radioact.*, 1995. **29**(2): p. 137-156.
  17. Gates, D.D. and R.L. Siegrist, *J. Environ. Eng.-ASCE* ARTICLE: *In-Situ Chemical Oxidation of Trichloroethylene Using Hydrogen-Peroxide.* *J. Environ. Eng.-ASCE*, 1995. **121**(9): p. 639-644.
  18. Gierke, J.S., C.G. Wang, O.R. West, and R.L. Siegrist, *Environ. Sci. Technol.* ARTICLE: *In-Situ Mixed Region Vapor Stripping in Low-Permeability Media .3. Modeling of Field-Tests.* *Environ. Sci. Technol.*, 1995. **29**(9): p. 2208-2216.
  19. Goyal, A., M. Paranthaman, Q. He, F.A. List, E.D. Specht, D.K. Christen, D.M. Kroeger, J.E. Tkaczyk, and P. Haldar, *IEEE Trans. Appl. Supercond.* ARTICLE: *Fabrication, Processing and Properties of Tl-1223 Conductors.* *IEEE Trans. Appl. Supercond.*, 1995. **5**(2): p. 1405-1408.
  20. Graedel, T.E., C.M. Benkovitz, W.C. Keene, D.S. Lee, and G. Marland, *Water Air Soil Pollut.* ARTICLE: *Global emissions inventories of acid-related compounds.* *Water Air Soil Pollut.*, 1995. **85**(1): p. 25-36.
  21. Gray, B.R. and W.R. Hill, *J. N. Am. Benthol. Soc.* ARTICLE: *Nickel sorption by periphyton exposed to different light intensities.* *J. N. Am. Benthol. Soc.*, 1995. **14**(2): p. 299-305.
  22. Griest, W.H., R.L. Tyndall, A.J. Stewart, J.E. Caton, A.A. Vass, C.-H. Ho, and W.M. Caldwell, *Environ. Toxicol. Chem.* ARTICLE: *Chemical characterization and toxicological testing of windrow composts from explosives-contaminated sediments.* *Environ. Toxicol. Chem.*, 1995. **14**(1): p. 51-59.
  23. Gu, B.H., J. Schmitt, Z. Chen, L.Y. Liang, and J.F. McCarthy, *Geochim. Cosmochim. Acta* ARTICLE: *Adsorption and Desorption of Different Organic-Matter Fractions on Iron-Oxide.* *Geochim. Cosmochim. Acta*, 1995. **59**(2): p. 219-229.
  24. Gu, B.H., O.R. West, and R.L. Siegrist, *Environ. Sci. Technol.* ARTICLE: *Using C-14-Labeled Radiochemicals Can Cause Experimental Error in Studies of the Behavior of Volatile Organic-Compounds.* *Environ. Sci. Technol.*, 1995. **29**(5): p. 1210-1214.
  25. Gwo, J.P., P.M. Jardine, G.V. Wilson, and G.T. Yeh, *J. Hydrol.* ARTICLE: *A Multiple-Pore-Region Concept to Modeling Mass-Transfer in Subsurface Media.* *J. Hydrol.*, 1995. **164**(1-4): p. 217-237.
  26. Hamilton, W.P., R.R. Turner, and M.M. Ghosh, *Water Air Soil Pollut.* ARTICLE: *Effect of Ph and Iodide on the Adsorption of Mercury(Ii) by Illite.* *Water Air Soil Pollut.*, 1995. **80**(1-4): p. 483-486.
  27. Hanson, P.J., S.E. Lindberg, T.A. Tabberer, J.G. Owens, and K.H. Kim, *Water Air Soil Pollut.* ARTICLE: *Foliar Exchange of Mercury-Vapor - Evidence for a Compensation Point.* *Water Air Soil Pollut.*, 1995. **80**(1-4): p. 373-382.
  28. Hargrove, W.W., *Q. Rev. Biol.* ARTICLE: *Principles of Environmental Sampling - Acs Professional Reference Book - Acs Software.* *Q. Rev. Biol.*, 1995. **70**(2): p. 269-270.
  29. He, Q., D.K. Christen, C.E. Klabunde, J.E. Tkaczyk, K.W. Lay, M. Paranthaman, J.R. Thompson, A. Goyal, A.J. Pedraza, and D.M. Kroeger, *Appl. Phys. Lett.* ARTICLE: *High-Current Superconducting Tl1ba2ca2cu3oy Thick-Films on Polycrystalline Ag by Spin-Coating.* *Appl. Phys. Lett.*, 1995. **67**(2): p. 294-296.
  30. Hill, L.J. and S.W. Hadley, *Bioresour. Technol.* ARTICLE: *Federal-Tax Incentives and Disincentives for the Adoption of Wood-Fuel Electric-Generating Technologies.* *Bioresour. Technol.*, 1995. **53**(2): p. 173-178.
  31. Hill, L.J. and S.W. Hadley, *Energy Policy* ARTICLE: *Federal-Tax Effects on the Financial Attractiveness of Renewable Versus Conventional Power-Plants.* *Energy Policy*, 1995. **23**(7):

- p. 593-597.
32. Hill, W.R., M.G. Ryon, and E.M. Schilling, Ecology ARTICLE: *Light Limitation in a Stream Ecosystem - Responses by Primary Producers and Consumers*. Ecology, 1995. **76**(4): p. 1297-1309.
  33. Hunsaker, C.T. and D.A. Levine, Bioscience ARTICLE: *Hierarchical Approaches to the Study of Water-Quality in Rivers*. Bioscience, 1995. **45**(3): p. 193-203.
  34. Jardine, P.M. and D.L. Taylor, Geochim. Cosmochim. Acta ARTICLE: *Kinetics and Mechanisms of Co(II)Edta Oxidation by Pyrolusite*. Geochim. Cosmochim. Acta, 1995. **59**(20): p. 4193-4203.
  35. Jardine, P.M. and D.L. Taylor, Geoderma ARTICLE: *Fate and Transport of Ethylenediaminetetraacetate Chelated Contaminants in Subsurface Environments*. Geoderma, 1995. **67**(1-2): p. 125-140.
  36. Jen, M.S., A.M. Hoylman, N.T. Edwards, and B.T. Walton, Environ. Exp. Bot. ARTICLE: *Experimental method to measure gaseous uptake of C-14-toluene by foliage*. Environ. Exp. Bot., 1995. **35**(3): p. 389-398.
  37. Johnson, A.H., E.R. Cook, T.G. Siccama, J.J. Battles, S.B. McLaughlin, D.C. Leblanc, and P.M. Wargo, Can. J. For. Res. ARTICLE: *Synchronic Large-Scale Disturbances and Red Spruce Growth Decline - Comment*. Can. J. For. Res., 1995. **25**(5): p. 851-858.
  38. Johnson, D.W. and S.E. Lindberg, Water Air Soil Pollut. ARTICLE: *The Biogeochemical Cycling of Hg in Forests - Alternative Methods for Quantifying Total Deposition and Soil Emission*. Water Air Soil Pollut., 1995. **80**(1-4): p. 1069-1077.
  39. Jones, D.S. and R.V. O' Neill, J. Reg. Sci. ARTICLE: *Development policies, urban unemployment and deforestation: The role of infrastructure and tax policy in a two-sector model*. J. Reg. Sci., 1995. **35**(1): p. 135-153.
  40. Jones, D.W., V.H. Dale, J.J. Beauchamp, M.A. Pedlowski, and R.V. O' Neill, Resource and Energy Economics ARTICLE: *Farming in Rondonia*. Resource and Energy Economics, 1995. **17**(2): p. 155-188.
  41. Kaufman, E.N., J.N. Petersen, Y. Wang, and M.H. Little, Chem. Eng. Sci. ARTICLE: *Experimental and Numerical Characterization of Liquid Fluidized-Beds of Coal Particles*. Chem. Eng. Sci., 1995. **50**(23): p. 3703-3714.
  42. Kearl, P.M., N. Korte, J.L. Zutman, and M. Stites, Waste Manage. ARTICLE: *Using an integrated approach for quantifying VOC source areas for site remediation*. Waste Manage., 1995. **15**(8): p. 599-607.
  43. Kieft, T.L., J.K. Fredrickson, J.P. McKinley, B.N. Bjornstad, S.A. Rawson, T.J. Phelps, F.J. Brockman, and S.M. Pfiffner, Appl. Environ. Microbiol. ARTICLE: *Microbiological Comparisons within and across Contiguous Lacustrine, Paleosol, and Fluvial Subsurface Sediments*. Appl. Environ. Microbiol., 1995. **61**(2): p. 749-757.
  44. Kim, K.H. and S.E. Lindberg, Water Air Soil Pollut. ARTICLE: *Design and Initial Tests of a Dynamic Enclosure Chamber for Measurements of Vapor-Phase Mercury Fluxes over Soils*. Water Air Soil Pollut., 1995. **80**(1-4): p. 1059-1068.
  45. Kim, K.H., S.E. Lindberg, and T.P. Meyers, Atmos. Environ. ARTICLE: *Micrometeorological Measurements of Mercury-Vapor Fluxes over Background Forest Soils in Eastern Tennessee*. Atmos. Environ., 1995. **29**(2): p. 267-282.
  46. King, A.W., W.R. Emanuel, S.D. Wullschleger, and W.M. Post, Tellus Ser. B-Chem. Phys. Meteorol. ARTICLE: *In Search of the Missing Carbon Sink - a Model of Terrestrial Biospheric Response to Land-Use Change and Atmospheric Co<sub>2</sub>*. Tellus Ser. B-Chem. Phys. Meteorol., 1995. **47**(4): p. 501-519.
  47. Kooner, Z.S., P.M. Jardine, and S. Feldman, Journal of Environmental Quality ARTICLE: *Competitive Surface Complexation Reactions of Sulfate and Natural Organic-Carbon on Soil*. Journal of Environmental Quality, 1995. **24**(4): p. 656-662.
  48. Kriger, A.A. and R.R. Turner, Water Air Soil Pollut. ARTICLE: *Field Analysis of Mercury in Water, Sediment and Soil Using Static Headspace Analysis*. Water Air Soil Pollut., 1995. **80**(1-

- 4): p. 1295-1304.
49. Liang, L., J.D. Goodlaxson, J.L. Clausen, and D.T. Davenport, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Ornl Mmes Research into Remedial Applications of Zero-Valence Metals .1. Laboratory Studies of Reductive Dechlorination of Tce*. Abstr. Pap. Am. Chem. Soc., 1995. **209**: p. 145-ENVR.
50. Lindberg, S.E., T.P. Meyers, and J. Munthe, Water Air Soil Pollut. ARTICLE: *Evasion of mercury vapor from tee surface of a recently limed acid forest lake in Sweden*. Water Air Soil Pollut., 1995. **85**(2): p. 725-730.
51. Lindberg, S.E., K.H. Kim, and J. Munthe, Water Air Soil Pollut. ARTICLE: *The Precise Measurement of Concentration Gradients of Mercury in Air over Soils - a Review of Past and Recent Measurements*. Water Air Soil Pollut., 1995. **80**(1-4): p. 383-392.
52. Lindberg, S.E., K.H. Kim, T.P. Meyers, and J.G. Owens, Environ. Sci. Technol. ARTICLE: *Micrometeorological Gradient Approach for Quantifying Air-Surface Exchange of Mercury-Vapor - Tests over Contaminated Soils*. Environ. Sci. Technol., 1995. **29**(1): p. 126-135.
53. Lotts, J.W. and A.J. Stewart, Environ. Toxicol. Chem. ARTICLE: *Minnows Can Acclimate to Total Residual Chlorine*. Environ. Toxicol. Chem., 1995. **14**(8): p. 1365-1374.
54. Marland, G. and B. Schlamadinger, Energy ARTICLE: *Biomass Fuels and Forest-Management Strategies - How Do We Calculate the Greenhouse-Gas Emissions Benefits*. Energy, 1995. **20**(11): p. 1131-1140.
55. McCarthy, J.F., J.D. Marsh, and E. Tipping, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Mobilization of Actinides from Disposal Trenches by Natural Organic-Matter*. Abstr. Pap. Am. Chem. Soc., 1995. **209**: p. 97-NUCL.
56. McLaughlin, S.B. and D.J. Downing, Nature ARTICLE: *Ambient Ozone and Loblolly Pines - Reply*. Nature, 1995. **378**(6556): p. 450-451.
57. McLaughlin, S.B. and D.J. Downing, Nature ARTICLE: *Interactive Effects of Ambient Ozone and Climate Measured on Growth of Mature Forest Trees*. Nature, 1995. **374**(6519): p. 252-254.
58. Moline, G.R. and J.M. Bahr, Math. Geol. ARTICLE: *Estimating Spatial Distributions of Heterogeneous Subsurface Characteristics by Regionalized Classification of Electrofacies*. Math. Geol., 1995. **27**(1): p. 3-22.
59. Mook, H.A., P. Dai, G. Aeppli, T.E. Mason, N.E. Hecker, J.A. Harvey, T. Armstrong, K. Salama, and D. Lee, Physica B ARTICLE: *Recent Neutron-Scattering Results on High-Temperature Superconductors*. Physica B, 1995. **213**: p. 43-47.
60. Mulholland, P.J., E.R. Marzolf, S.P. Hendricks, R.V. Wilkerson, and A.K. Baybayan, J. North American Benthol. Soc. ARTICLE: *Longitudinal Patterns of Nutrient Cycling and Periphyton Characteristics in Streams - a Test of Upstream-Downstream Linkage*. J. North American Benthol. Soc., 1995. **14**(3): p. 357-370.
61. Napolitano, G.E., H. Heras, and A.J. Stewart, Biochem. Syst. Ecol. ARTICLE: *Fatty-Acid Composition of Fresh-Water Phytoplankton During a Red Tide Event*. Biochem. Syst. Ecol., 1995. **23**(1): p. 65-69.
62. Napolitano, G.E. and J.E. Richmond, Environ. Toxicol. Chem. ARTICLE: *Enrichment of Biogenic Lipids, Hydrocarbons and Pcb's in Stream-Surface Foams*. Environ. Toxicol. Chem., 1995. **14**(2): p. 197-201.
63. Nicholson, D.M.C., G.M. Stocks, Y. Wang, W.A. Shelton, Z. Szotek, and W.M. Temmerman, Surf. Rev. Lett. ARTICLE: *Local-Density Calculations for Large Systems Using Multiple-Scattering Theory*. Surf. Rev. Lett., 1995. **2**(1): p. 71-79.
64. Nodvin, S.C., H. VanMiegroet, S.E. Lindberg, N.S. Nicholas, and D.W. Johnson, Water Air Soil Pollut. ARTICLE: *Acidic deposition, ecosystem processes, and nitrogen saturation in a high elevation Southern Appalachian watershed*. Water Air Soil Pollut., 1995. **85**(3): p. 1647-1652.
65. Norby, R.J., S.D. Wullschleger, C.A. Gunderson, and C.T. Nietch, New Phytol. ARTICLE: *Increased Growth Efficiency of Quercus-Alba Trees in a Co2-Enriched Atmosphere*. New Phytol., 1995. **131**(1): p. 91-97.

66. Palumbo, A.V., S.P. Scarborough, S.M. Pfiffner, and T.J. Phelps, Appl. Biochem. Biotechnol. ARTICLE: *Influence of Nitrogen and Phosphorus on the in-Situ Bioremediation of Trichloroethylene*. Appl. Biochem. Biotechnol., 1995. **51-2**: p. 635-647.
67. Perlack, R.D. and L.L. Wright, Energy ARTICLE: *Technical and Economic-Status of Wood Energy Feedstock Production*. Energy, 1995. **20**(4): p. 279-284.
68. Pinnaduwege, L.A., M.Z. Martin, and L.G. Christophorou, Contrib. Plasma Phys. ARTICLE: *Enhanced Negative-Ion Formation in ArF-Laser Irradiated Methane - Possible Implications for Plasma Processing Discharges*. Contrib. Plasma Phys., 1995. **35**(4-5): p. 433-438.
69. Saunders, J.A. and L.E. Toran, Appl. Geochem. ARTICLE: *Modeling of radionuclide and heavy metal sorption around low- and high-pH waste disposal sites at Oak Ridge, Tennessee*. Appl. Geochem., 1995. **10**(6): p. 673-684.
70. Shubzda, J., S.E. Lindberg, C.T. Garten, and S.C. Nodvin, Water Air Soil Pollut. ARTICLE: *Elevational trends in the fluxes of sulphur and nitrogen in throughfall in the southern Appalachian mountains: Some surprising results*. Water Air Soil Pollut., 1995. **85**(4): p. 2265-2270.
71. Siegrist, R.L., O.R. West, M.I. Morris, D.A. Pickering, D.W. Greene, C.A. Muhr, D.D. Davenport, and J.S. Gierke, Environ. Sci. Technol. ARTICLE: *In-Situ Mixed Region Vapor Stripping in Low-Permeability Media .2. Full-Scale Field Experiments*. Environ. Sci. Technol., 1995. **29**(9): p. 2198-2207.
72. Smith, E.P. and K.A. Rose, Ecol. Model. ARTICLE: *Model Goodness-of-Fit Analysis Using Regression and Related Techniques*. Ecol. Model., 1995. **77**(1): p. 49-64.
73. Southworth, G.R., R.R. Turner, M.J. Peterson, and M.A. Bogle, Chemosphere ARTICLE: *Form of Mercury in Stream Fish Exposed to High-Concentrations of Dissolved Inorganic Mercury*. Chemosphere, 1995. **30**(4): p. 779-787.
74. Stratton, W.J. and S.E. Lindberg, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Measurement of Gas-Phase Ionic Mercury(Ii) Species in Ambient Air*. Abstr. Pap. Am. Chem. Soc., 1995. **210**: p. 60-GEOC.
75. Stratton, W.J. and S.E. Lindberg, Water Air Soil Pollut. ARTICLE: *Use of a Refluxing Mist Chamber for Measurement of Gas-Phase Mercury(Ii) Species in the Atmosphere*. Water Air Soil Pollut., 1995. **80**(1-4): p. 1269-1278.
76. Sun, L., E.M. Perdue, and J.F. McCarthy, Water Res. ARTICLE: *Using Reverse-Osmosis to Obtain Organic-Matter from Surface and Ground Waters*. Water Res., 1995. **29**(6): p. 1471-1477.
77. Suter, G.W., Ecol. Econ. ARTICLE: *Adapting Ecological Risk Assessment for Ecosystem Valuation*. Ecol. Econ., 1995. **14**(2): p. 137-141.
78. Suter II, G.W., B.W. Cornaby, C.T. Hadden, R.N. Hull, M. Stack, and F.A. Zafran, Risk Anal. ARTICLE: *An approach for balancing health and ecological risks at hazardous waste sites*. Risk Anal., 1995. **15**(3): p. 221-231.
79. Taylor, D.L. and P.M. Jardine, J. Environ. Qual. ARTICLE: *Analysis of Cobalt(Ii)Edta and Cobalt(Iii)Edta in Pore-Water by Ion Chromatography*. J. Environ. Qual., 1995. **24**(4): p. 789-792.
80. Tschantz, M.F., J.P. Bowman, T.L. Donaldson, P.R. Bienkowski, J.M. Stronggunderson, A.V. Palumbo, S.E. Herbes, and G.S. Saylor, Environ. Sci. Technol. ARTICLE: *Methanotrophic Tce Biodegradation in a Multistage Bioreactor*. Environ. Sci. Technol., 1995. **29**(8): p. 2073-2082.
81. Tschaplinski, T.J., D.B. Stewart, P.J. Hanson, and R.J. Norby, New Phytol. ARTICLE: *Interactions between Drought and Elevated Co2 on Growth and Gas-Exchange of Seedlings of 3 Deciduous Tree Species*. New Phytol., 1995. **129**(1): p. 63-71.
82. Tschaplinski, T.J., D.B. Stewart, and R.J. Norby, New Phytol. ARTICLE: *Interactions between Drought and Elevated Co2 on Osmotic Adjustment and Solute Concentrations of Tree Seedlings*. New Phytol., 1995. **131**(2): p. 169-177.
83. Tschaplinski, T.J., G.M. Gebre, J.E. Dahl, G.T. Roberts, and G.A. Tuskan, Canadian Journal of Forest Research ARTICLE: *Growth and Solute Adjustment of Calli of Populus Clones Cultured*

- on Nutrient Medium Containing Polyethylene-Glycol*. Canadian Journal of Forest Research, 1995. **25**(9): p. 1425-1433.
84. Vermette, S.J., S.E. Lindberg, and N.S. Bloom, Abstr. Pap. Am. Chem. Soc. ARTICLE: *The Mercury Deposition Network of the National Atmospheric Deposition Program (Nadp/Mdn)*. Abstr. Pap. Am. Chem. Soc., 1995. **210**: p. 81-GEOC.
85. Vermette, S.J., M.E. Peden, T.C. Willoughby, S.E. Lindberg, and A.D. Weiss, Atmos. Environ. ARTICLE: *Methodology for the Sampling of Metals in Precipitation - Results of the National Atmospheric Deposition Program (Nadp) Pilot Network*. Atmos. Environ., 1995. **29**(11): p. 1221-1229.
86. Villinski, J.E., M.H. Conklin, and L. Liang, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Effect of Natural Organic-Matter on the Mn/Fe Redox Couple*. Abstr. Pap. Am. Chem. Soc., 1995. **209**: p. 78-GEOC.
87. Wang, Y., G.M. Stocks, W.A. Shelton, D.M.C. Nicholson, Z. Szotek, and W.M. Temmerman, Phys. Rev. Lett. ARTICLE: *Order-N Multiple-Scattering Approach to Electronic-Structure Calculations*. Phys. Rev. Lett., 1995. **75**(15): p. 2867-2870.
88. Wang, Y., J.N. Petersen, and E.N. Kaufman, Appl. Biochem. Biotechnol. ARTICLE: *Modeling the Biological Solubilization of Coal in a Liquid Fluidized-Bed Reactor*. Appl. Biochem. Biotechnol., 1995. **51-2**: p. 437-448.
89. West, O.R., R.L. Siegrist, and R.A. Jenkins, Environ. Sci. Technol. ARTICLE: *Measurement Error and Spatial Variability Effects on Characterization of Volatile Organics in the Subsurface - Response*. Environ. Sci. Technol., 1995. **29**(12): p. 3067-3069.
90. West, O.R., R.L. Siegrist, J.S. Gierke, S.W. Schmunk, A.J. Lucero, and H.L. Jennings, Environ. Sci. Technol. ARTICLE: *In-Situ Mixed Region Vapor Stripping in Low-Permeability Media .1. Process Features and Laboratory Experiments*. Environ. Sci. Technol., 1995. **29**(9): p. 2191-2197.
91. West, O.R., R.L. Siegrist, T.J. Mitchell, and R.A. Jenkins, Environ. Sci. Technol. ARTICLE: *Measurement Error and Spatial Variability Effects on Characterization of Volatile Organics in the Subsurface*. Environ. Sci. Technol., 1995. **29**(3): p. 647-656.
92. Winemiller, K.O., L.C. Kelsowinemiller, and A.L. Brenkert, Environ. Biol. Fishes ARTICLE: *Ecomorphological Diversification and Convergence in Fluvial Cichlid Fishes*. Environ. Biol. Fishes, 1995. **44**(1-3): p. 235-261.
93. Wullschleger, S.D., R.J. Norby, and P.J. Hanson, Physiol. Plant. ARTICLE: *Growth and Maintenance Respiration in Stems of Quercus-Alba after 4 Years of Co2 Enrichment*. Physiol. Plant., 1995. **93**(1): p. 47-54.
94. Yeh, T.C.J., J. Maspla, T.M. Williams, and J.F. McCarthy, Water Resour. Res. ARTICLE: *Observation and 3-Dimensional Simulation of Chloride Plumes in a Sandy Aquifer under Forced-Gradient Conditions*. Water Resour. Res., 1995. **31**(9): p. 2141-2157.
95. Yeh, T.C.J., J. Maspla, J.F. McCarthy, and T.M. Williams, Environ. Health Perspect. ARTICLE: *Modeling of Natural Organic-Matter Transport Processes in Groundwater*. Environ. Health Perspect., 1995. **103**: p. 41-46.

#### 1995 Reports

96. Bonczek, R.R., J. Davidson, A.F. Diefendorf, F.G. Dolislager, N.E. Korte, C.J. Marshall, G.R. Miller, and W.L. Richards, REPORT: *Background Concentrations and Human Health Risk-Based Screening Criteria for Metals in Soil at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1417&D1*. 1995,
97. Cooper, L.W., G.L. Franklin, and G.H. Houser, REPORT: *Report of Foreign Travel by L. W. Cooper, G. L. Franklin, and G. H. Houser, August 9 - September 4, 1995, ORNL/FTR-5554*. 1995,
98. Dreier, R.B. and A.J. Caldarno, REPORT: *Sampling Results, DNAPL Monitoring Well GW-790, 1st through 3rd Quarter, FY95, ORNL/M-4847*. 1995,

99. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, F.R. Reeves, M.J. Rooks, M.L. Bell, and D. Hunsaker, REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings for Dyess Air Force Base, Texas, Preliminary Report, ORNL/M-4989. 1995,
100. Turner, R.S., W.H. Ramsey, H.E. Cardwell, F. O'Hara, M. Bell, and S.L. Davis, REPORT: Regional Assessment of Climate Change Impacts in the Southeast, Summary of Workshop I: Vulnerable Resources and Predictive Capabilities, ORNL/M-5483. 1995

#### 1996 Book Sections

101. Arnell, N., B. Bates, H. Lang, J. Magnuson, and P.J. Mulholland, BOOK SECTION: *Hydrology and Freshwater Ecology*. 1996, Cambridge University Press. p. 329-63.
102. Ashwood, T.L., B.E. Sample, R.A. Washington-Allen, and G.W. Suter, II, BOOK SECTION: *An Integrated Approach to Ecological Risk Assessment of a Large Forested Ecosystem*. 1996, St. Lucie Press.
103. Blake, T.J., J. Sperry, T.J. Tschaplinski, and S.S. Wang, BOOK SECTION: *Water Relations*. 1996, Natural Sciences and Engineering Research Council of China. p. 401-422.
104. Grubler, A., H. Ishitani, T. Johansson, G. Marland, J.R. Moreira, H.-H. Rogner, and N. Nakicenovic, BOOK SECTION: *Energy Primer*. 1996, Cambridge Press. p. 76-92.
105. Land, S.B., Jr., A.W. Ezell, S.H. Schoenholtz, G.A. Tuskan, T.J. Tschaplinski, M. Stine, H.D. Bradshaw, R.C. Kellison, and J. Portwood, BOOK SECTION: *Intensive Culture of Cottonwoods and Hybrid Poplars*. 1996, Louisiana State University Pres. p. 1-12.
106. Landsberg, J.J., S.D. Prince, P.G. Jarvis, R.E. McMurtrie, R. Luxmoore, and B.E. Medlyn, BOOK SECTION: *Energy Conversion and Use in Forests: The Analysis of Forest Production in Terms of Radiation Utilisation Efficiency*. 1996, Kluwer Academic Publishers: Dordrecht, The Netherlands. p. 273-298.
107. Lindberg, S.E., BOOK SECTION: *Forests and the global biogeochemical cycle of mercury: the importance of understanding air/vegetation exchange processes*, in *Global and Regional Mercury Cycles: Sources, Fluxes and Mass Balances*, W. Baeyens, R. Ebinghaus, and O. Vasiliev, Editors. 1996, Kluwer Academic: Dordrecht. p. 359-80.
108. Matthews, R.W., G.-J. Nabuurs, V. Alexeyev, R.A. Birdsey, A. Fischlin, J.P. Maclaren, G. Marland, and D.T. Price, BOOK SECTION: *WG3 Summary: Evaluating the Role of Forest Management and Forest Products in the Carbon Cycle*. 1996, Springer. p. 293-301.
109. Napolitano, G.E., BOOK SECTION: *Fatty Acids as Trophic and Chemical Markers in Freshwater Ecosystems*. 1996, Springer-Verlag, New York.
110. Schlamadinger, B.M., G., BOOK SECTION: *Carbon Implications of Forest Management Strategies*. 1996, Springer-Verlag: Berlin Heidelberg. p. 217-32.
111. White, D.C., H.C. Pinkart, and D.B. Ringelberg, BOOK SECTION: *Biomass Measurements: Biochemical Approaches*. 1996, Am. Soc. Microbiol. Press: Washington, DC. p. 91-101.

#### 1996 Conference Papers

112. Nyquist, J.E., L.P. Beard, and D. Johnson. CONFERENCE PAPER: *Ground and airborne magnetic and electromagnetic surveys at a hazardous waste site*. in *ASCE National Convention*. 1996. Washington: ASCE.

#### 1996 Journal Articles

113. Adams, S.M., K.D. Ham, M.S. Greeley, R.F. LeHew, D.E. Hinton, and C.F. Saylor, Can. J. Fish. Aquat. Sci. ARTICLE: *Downstream gradients in bioindicator responses: point source contaminant effects on fish health*. Can. J. Fish. Aquat. Sci., 1996. **53**(10): p. 2177-2187.
114. Adams, S.M., J.S. Jaworska, and K.D. Ham, Mar. Environ. Res. ARTICLE: *Influence of*



- ecological factors on the relationship between MFO induction and fish growth: bridging the gap using neural networks.* Mar. Environ. Res., 1996. **42**(1-4): p. 197-201.
115. Andres, R.J., G. Marland, I. Fung, and E. Matthews, Glob. Biogeochem. Cycle. ARTICLE: *A 1 degrees x1 degrees distribution of carbon dioxide emissions from fossil fuel consumption and cement manufacture, 1950-1990.* Glob. Biogeochem. Cycle., 1996. **10**(3): p. 419-429.
116. Bevelhimer, M.S., Trans. Am. Fish. Soc. ARTICLE: *Relative importance of temperature, food, and physical structure to habitat choice by smallmouth bass in laboratory experiments.* Trans. Am. Fish. Soc., 1996. **125**(2): p. 274-283.
117. Bevelhimer, M.S. and S.M. Adams, Am. Fish. Soc. SYmp. ARTICLE: *Assessing contaminant distribution and effects in a reservoir fishery.* Am. Fish. Soc. SYmp., 1996. **16**: p. 119-132.
118. Blasing, T.J., R.L. Miller, and L.N. McCold, J. Air Waste Manage. Assoc. ARTICLE: *Potential consequences of the Clean Coal Program for air and waste issues.* J. Air Waste Manage. Assoc., 1996. **46**(6): p. 517-529.
119. Brooks, S.C., D.L. Taylor, and P.M. Jardine, Geochim. Cosmochim. Acta ARTICLE: *Reactive transport of EDTA-complexed cobalt in the presence of ferrihydrite.* Geochim. Cosmochim. Acta, 1996. **60**(11): p. 1899-1908.
120. Burlage, R.S., Z.K. Yang, and T. Mehlhorn, Gene ARTICLE: *A transposon for green fluorescent protein transcriptional fusions: Application for bacterial transport experiments.* Gene, 1996. **173**(1): p. 53-58.
121. Burlage, R.S., J. Microbiol. Methods ARTICLE: *Current advances in Russian Microbiology.* J. Microbiol. Methods, 1996. **24**(3): p. 201-201.
122. Cardwell, H., H.I. Jager, and M.J. Sale, J. Water Resour. Plan. Manage.-ASCE ARTICLE: *Designing instream flows to satisfy fish and human water needs.* J. Water Resour. Plan. Manage.-ASCE, 1996. **122**(5): p. 356-363.
123. Chapatwala, K.D., G.R.V. Bau, O.K. Vijaya, E. Armstead, A.V. Palumbo, C. Zhang, and T.J. Phelps, Appl. Biochem. Biotechnol. ARTICLE: *Effect of temperature and yeast extract on microbial respiration of sediments from a shallow coastal subsurface and vadose zone.* Appl. Biochem. Biotechnol., 1996. **57-8**: p. 827-835.
124. Cheng, M.D., N. Gao, and P.K. Hopke, J. Environ. Eng.-ASCE ARTICLE: *Source apportionment study of nitrogen species measured in southern California in 1987.* J. Environ. Eng.-ASCE, 1996. **122**(3): p. 183-190.
125. Coutant, C.C., Trans. Am. Fish. Soc. ARTICLE: *Comment: Effects of instream brush on juvenile coho salmon.* Trans. Am. Fish. Soc., 1996. **125**(1): p. 150-151.
126. Coutant, C.C., Trans. Am. Fish. Soc. ARTICLE: *Effects of instream brush on juvenile coho salmon - Comment.* Trans. Am. Fish. Soc., 1996. **125**(1): p. 150-151.
127. Cowan, J.H., E.D. Houde, and K.A. Rose, ICES J. Mar. Sci. ARTICLE: *Size-dependent vulnerability of marine fish larvae to predation: An individual-based numerical experiment.* ICES J. Mar. Sci., 1996. **53**(1): p. 23-37.
128. Doll, W.E., W.J. Domoracki, J.K. Costain, C. Coruh, A. Ludman, and J.T. Hopeck, Geology ARTICLE: *Seismic reflection evidence for the evolution of a transcurrent fault system: The Norumbega fault zone, Maine.* Geology, 1996. **24**(3): p. 251-254.
129. Downing, M. and R.L. Graham, Biomass Bioenerg. ARTICLE: *The potential supply and cost of biomass from energy crops in the Tennessee valley authority region.* Biomass Bioenerg., 1996. **11**(4): p. 283-303.
130. Edwards, N.T. and P.J. Hanson, Tree Physiol. ARTICLE: *Stem respiration in a closed-canopy upland oak forest.* Tree Physiol., 1996. **16**(4): p. 433-439.
131. Frohn, R.C., K.C. McGwire, V.H. Dale, and J.E. Estes, Int. J. Remote Sens. ARTICLE: *Using satellite remote sensing analysis to evaluate a socio-economic and ecological model of deforestation in Rondonia, Brazil.* Int. J. Remote Sens., 1996. **17**(16): p. 3233-3255.
132. Garten, C.T., Tellus Ser. B-Chem. Phys. Meteorol. ARTICLE: *Stable nitrogen isotope ratios in wet and dry nitrate deposition collected with an artificial tree.* Tellus Ser. B-Chem. Phys. Meteorol., 1996. **48**(1): p. 60-64.



133. Gibbs, M.H., L.F. Wicker, and A.J. Stewart, Environ. Toxicol. Chem. ARTICLE: *A method for assessing sublethal effects of contaminants in soils to the earthworm, Eisenia foetida*. Environ. Toxicol. Chem., 1996. **15**(3): p. 360-368.
134. Graham, R.L., M. Downing, and M.E. Walsh, Environ. Manage. ARTICLE: *A framework to assess regional environmental impacts of dedicated energy crop production*. Environ. Manage., 1996. **20**(4): p. 475-485.
135. Grittini, C., G.A. Romeo, Q. Fernando, and N.E. Korte, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Complete dechlorination of pentachlorophenol*. Abstr. Pap. Am. Chem. Soc., 1996. **212**: p. 49-ENVR.
136. Gu, B.H., T.L. Mehlhorn, L.Y. Liang, and J.F. McCarthy, Geochim. Cosmochim. Acta ARTICLE: *Competitive adsorption, displacement, and transport of organic matter on iron oxide .2. Displacement and transport*. Geochim. Cosmochim. Acta, 1996. **60**(16): p. 2977-2992.
137. Gu, B.H., T.L. Mehlhorn, L.Y. Liang, and J.F. McCarthy, Geochim. Cosmochim. Acta ARTICLE: *Competitive adsorption, displacement, and transport of organic matter on iron oxide .1. Competitive adsorption*. Geochim. Cosmochim. Acta, 1996. **60**(11): p. 1943-1950.
138. Gunter, L.E., G.A. Tuskan, and S.D. Wullschleger, Crop Sci. ARTICLE: *Diversity among populations of switchgrass based on RAPD markers*. Crop Sci., 1996. **36**(4): p. 1017-1022.
139. Gwo, J.P., L.E. Toran, M.D. Morris, and G.V. Wilson, Ground Water ARTICLE: *Subsurface stormflow modeling with sensitivity analysis using a Latin-hypercube sampling technique*. Ground Water, 1996. **34**(5): p. 811-818.
140. Gwo, J.P., P.M. Jardine, G.V. Wilson, and G.T. Yeh, Water Resour. Res. ARTICLE: *Using a multiregion model to study the effects of advective and diffusive mass transfer on local physical nonequilibrium and solute mobility in a structured soil*. Water Resour. Res., 1996. **32**(3): p. 561-570.
141. Hill, W.R., A.J. Stewart, and G.E. Napolitano, Can. J. Fish. Aquat. Sci. ARTICLE: *Mercury speciation and bioaccumulation in lotic primary producers and primary consumers*. Can. J. Fish. Aquat. Sci., 1996. **53**(4): p. 812-819.
142. Host, G.E., J.G. Isebrands, G.W. Theseira, J.R. Kiniry, and R.L. Graham, Biomass Bioenerg. ARTICLE: *Temporal and spatial scaling from individual trees to plantations: A modeling strategy*. Biomass Bioenerg., 1996. **11**(2-3): p. 233-243.
143. Inn, K.G.W., Z.V. Lin, W.S. Liggett, F.J. Schima, P. Krey, M. Feiner, C.K. Liu, R. Holloway, J. Harvey, I.L. Larsen, T. Beasley, C.A. Huh, D. McCurdy, P. Germain, M. Yamamoto, J. Handl, D.S. Popplewell, M.J. Woods, S. Jerome, T.H. Bates, A. Holms, B.R. Harvey, K.J. Odell, B.B. Warren, and P. Young, Appl. Radiat. Isot. ARTICLE: *Low-level radioactivity ocean sediment standard reference material*. Appl. Radiat. Isot., 1996. **47**(9-10): p. 967-970.
144. James, B.R., J.P. Gwo, and L. Toran, J. Water Resour. Plan. Manage.-ASCE ARTICLE: *Risk-cost decision framework for aquifer remediation design*. J. Water Resour. Plan. Manage.-ASCE, 1996. **122**(6): p. 414-420.
145. Letcher, B.H., J.A. Rice, L.B. Crowder, and K.A. Rose, Can. J. Fish. Aquat. Sci. ARTICLE: *Variability in survival of larval fish: Disentangling components with a generalized individual-based model*. Can. J. Fish. Aquat. Sci., 1996. **53**(4): p. 787-801.
146. Mann, L.K., P.D. Parr, L.R. Pounds, and R.L. Graham, Environmental Management ARTICLE: *Protection of biota on nonpark public lands; examples from the U.S. Department of Energy Oak Ridge Reservation*. Environmental Management, 1996. **20**(2): p. 207-218.
147. Marland, G., Clim. Change ARTICLE: *Could we should we engineer the earth's climate?* Clim. Change, 1996. **33**(3): p. 275-278.
148. Martin, M.Z., S.R. Desai, C.S. Feigerle, and J.C. Miller, J. Phys. Chem. ARTICLE: *Chemistry in clusters: Synthesis of NO+(N2O3)(n) and NO2+(N2O3)(n) species*. J. Phys. Chem., 1996. **100**(20): p. 8170-8174.
149. McCarthy, J.F., B. Gu, L. Liang, J. MasPla, T.M. Williams, and T.C.J. Yeh, Water Resour. Res. ARTICLE: *Field tracer tests on the mobility of natural organic matter in a sandy aquifer*. Water Resour. Res., 1996. **32**(5): p. 1223-1238.

150. McCold, L.N. and J.W. Saulsbury, *Environ. Manage.* ARTICLE: *Including past and present impacts in cumulative impact assessments.* *Environ. Manage.*, 1996. **20**(5): p. 767-776.
151. McLaughlin, S.B. and Y.C. Wang, *Trends Plant Sci.* ARTICLE: *Foliar phytochelatin levels as indicators of forest decline.* *Trends Plant Sci.*, 1996. **1**(8): p. 249-250.
152. McLaughlin, S.B. and D.J. Downing, *Can. J. For. Res.* ARTICLE: *Interactive effects of ambient ozone and climate measured on growth of mature loblolly pine trees.* *Can. J. For. Res.*, 1996. **26**(4): p. 670-681.
153. Meyers, T.P., M.E. Hall, S.E. Lindberg, and K. Kim, *Atmos. Environ.* ARTICLE: *Use of the modified Bowen-ratio technique to measure fluxes of trace gases.* *Atmos. Environ.*, 1996. **30**(19): p. 3321-3329.
154. Moline, G.R., J.J. Beauchamp, and T. Wright, *Ground Water* ARTICLE: *Determining an optimal sampling frequency for measuring bulk temporal changes in ground-water quality.* *Ground Water*, 1996. **34**(4): p. 579-587.
155. Mook, H.A., P. Dai, K. Salama, D. Lee, F. Dogan, G. Aeppli, A.T. Boothroyd, and M.E. Mostoller, *Phys. Rev. Lett.* ARTICLE: *Incommensurate one-dimensional fluctuations in YBa<sub>2</sub>CU<sub>3</sub>O<sub>6.93</sub>.* *Phys. Rev. Lett.*, 1996. **77**(2): p. 370-373.
156. Napolitano, G.E., N.C. Shantha, W.R. Hill, and A.E. Luttrell, *Arch. Hydrobiol.* ARTICLE: *Lipid and fatty acid compositions of stream periphyton and stoneroller minnows (Campostoma anomalum): Trophic and environmental implications.* *Arch. Hydrobiol.*, 1996. **137**(2): p. 211-225.
157. Norby, R.J., *Ann. Sci. For.* ARTICLE: *Oaks in a high-CO<sub>2</sub> world.* *Ann. Sci. For.*, 1996. **53**(2-3): p. 413-429.
158. Norby, R.J., *Nature* ARTICLE: *Forest canopy productivity index.* *Nature*, 1996. **381**(6583): p. 564-564.
159. Oakley, D. and N.E. Korte, *Ground Water Monit. Remediat.* ARTICLE: *Nickel and chromium in ground water samples as influenced by well construction and sampling methods.* *Ground Water Monit. Remediat.*, 1996. **16**(1): p. 93-99.
160. O'Neill, R.V., J.R. Kahn, J.R. Duncan, S. Elliott, R. Efroymson, H. Cardwell, and D.W. Jones, *Ecol. Appl.* ARTICLE: *Economic growth and sustainability: A new challenge.* *Ecol. Appl.*, 1996. **6**(1): p. 23-24.
161. O'Neill, R.V., C.T. Hunsaker, S.P. Timmins, B.L. Jackson, K.B. Jones, K.H. Riitters, and J.D. Wickham, *Landsc. Ecol.* ARTICLE: *Scale problems in reporting landscape pattern at the regional scale.* *Landsc. Ecol.*, 1996. **11**(3): p. 169-180.
162. Onstott, T.C., T.J. Phelps, and F.S. Colwell, *Abstr. Pap. Am. Chem. Soc.* ARTICLE: *Migration and growth of microorganisms in the deep subsurface.* *Abstr. Pap. Am. Chem. Soc.*, 1996. **211**: p. 124-GEOC.
163. Palumbo, A.V., C.L. Zhang, S. Liu, S.P. Scarborough, S.M. Pfiffner, and T.J. Phelps, *Appl. Biochem. Biotechnol.* ARTICLE: *Influence of media on measurement of bacterial populations in the subsurface - Numbers and diversity.* *Appl. Biochem. Biotechnol.*, 1996. **57-8**: p. 905-914.
164. Perlack, R.D., M.E. Walsh, L.L. Wright, and L.D. Ostlie, *Bioresour. Technol.* ARTICLE: *The economic potential of whole-tree feedstock production.* *Bioresour. Technol.*, 1996. **55**(3): p. 223-229.
165. Peterson, M.J., G.R. Southworth, and W.D. Crumby, *Environ. Monit. Assess.* ARTICLE: *Monitoring mercury in fish in a stream system receiving multiple industrial inputs.* *Environ. Monit. Assess.*, 1996. **40**(1): p. 91-105.
166. Plotnick, R.E., R.H. Gardner, W.W. Hargrove, K. Prestegard, and M. Perlmutter, *Phys. Rev. E* ARTICLE: *Lacunarity analysis: A general technique for the analysis of spatial patterns.* *Phys. Rev. E*, 1996. **53**(5): p. 5461-5468.
167. Reedy, O.C., P.M. Jardine, G.V. Wilson, and H.M. Selim, *Soil Sci. Soc. Am. J.* ARTICLE: *Quantifying the diffusive mass transfer of nonreactive solutes in columns of fractured saprolite using flow interruption.* *Soil Sci. Soc. Am. J.*, 1996. **60**(5): p. 1376-1384.
168. Rose, K.A., J.A. Tyler, R.C. Chambers, G. KleinMacPhee, and D.J. Danila, *Can. J. Fish.*

- Aquat. Sci. ARTICLE: *Simulating winter flounder population dynamics using coupled individual-based young-of-the-year and age-structured adult models*. Can. J. Fish. Aquat. Sci., 1996. **53**(5): p. 1071-1091.
169. Sample, B.E., L. Butler, C. Zivkovich, R.C. Whitmore, and R. Reardon, Can. Entomol. ARTICLE: *Effects of Bacillus thuringiensis berliner var. Kurstaki and defoliation by the gypsy moth [Lymantria dispar (L.) (Lepidoptera: Lymantriidae)] on native arthropods in West Virginia*. Can. Entomol., 1996. **128**(4): p. 573-592.
170. Sanderson, M.A., R.L. Reed, S.B. McLaughlin, S.D. Wullschleger, B.V. Conger, D.J. Parrish, D.D. Wolf, C. Taliaferro, A.A. Hopkins, W.R. Ocumpaugh, M.A. Hussey, J.C. Read, and C.R. Tischler, Bioresour. Technol. ARTICLE: *Switchgrass as a sustainable bioenergy crop*. Bioresour. Technol., 1996. **56**(1): p. 83-93.
171. Satmark, B., Y. Albinsson, and L. Liang, J. Contam. Hydrol. ARTICLE: *Chemical effects of goethite colloid on the transport of radionuclides through a quartz-packed column*. J. Contam. Hydrol., 1996. **21**(1-4): p. 231-241.
172. Schlamadinger, B. and G. Marland, Biomass Bioenerg. ARTICLE: *The role of forest and bioenergy strategies in the global carbon cycle*. Biomass Bioenerg., 1996. **10**(5-6): p. 275-300.
173. Schreuders, P.D., E.D. Smith, K.W. Cole, M.D.P. Valencia, A. Laughinghouse, and P. Mazur, Cryobiology ARTICLE: *Characterization of intraembryonic freezing in Anopheles gambiae embryos*. Cryobiology, 1996. **33**(5): p. 487-501.
174. Shugart, L.R. and C. Theodorakis, Comp. Biochem. Physiol. C-Pharmacol. Toxicol. Endocrinol. ARTICLE: *Genetic ecotoxicology: The genotypic diversity approach*. Comp. Biochem. Physiol. C-Pharmacol. Toxicol. Endocrinol., 1996. **113**(2): p. 273-276.
175. Stewart, A.J., Ecotoxicology ARTICLE: *Ambient bioassays for assessing water-quality conditions in receiving streams*. Ecotoxicology, 1996. **5**(6): p. 377-393.
176. Stewart, A.J., B.J. Sparks, J.P. Carder, and J.R. Sumner, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Constructed wetlands design for enhanced phytoremediation of effluents*. Abstr. Pap. Am. Chem. Soc., 1996. **212**: p. 104-AGRO.
177. Stewart, A.J., W.R. Hill, K.D. Ham, S.W. Christensen, and J.J. Beauchamp, Ecol. Appl. ARTICLE: *Chlorine dynamics and ambient toxicity in receiving streams*. Ecol. Appl., 1996. **6**(2): p. 458-471.
178. Stewart, A.J. and L.A. Kszos, Limnol. Oceanogr. ARTICLE: *Caution on using lithium (Li+) as a conservative tracer in hydrological studies*. Limnol. Oceanogr., 1996. **41**(1): p. 190-191.
179. Suter, G.W., Hum. Ecol. Risk Assess. ARTICLE: *Abuse of hypothesis testing statistics in ecological risk assessment*. Hum. Ecol. Risk Assess., 1996. **2**(2): p. 331-347.
180. Suter, G.W., Environ. Toxicol. Chem. ARTICLE: *Toxicological benchmarks for screening contaminants of potential concern for effects on freshwater biota*. Environ. Toxicol. Chem., 1996. **15**(7): p. 1232-1241.
181. Suter, G.W. and B.E. Sample, Environ. Sci. Technol. ARTICLE: *Internet resources*. Environ. Sci. Technol., 1996. **30**(5): p. A184-A184.
182. Swihart, J.C., D.M.C. Nicholson, G.M. Stocks, Y. Wang, W.A. Shelton, and H. Yang, J. Non-Cryst. Solids ARTICLE: *Calculation of electronic properties of amorphous alloys*. J. Non-Cryst. Solids, 1996. **207**: p. 841-845.
183. Talibuddin, S., L. Wu, J. Runt, and J.S. Lin, Macromolecules ARTICLE: *Microstructure of melt-miscible, semicrystalline polymer blends*. Macromolecules, 1996. **29**(23): p. 7527-7535.
184. Tonn, B.E., Social Science Computer Review ARTICLE: *Summary of CSS'95*. Social Science Computer Review, 1996. **14**(2): p. 187-189.
185. Tonn, B.E., International Journal of Intelligent Systems ARTICLE: *An algorithmic approach to combining belief functions*. International Journal of Intelligent Systems, 1996. **11**(7): p. 463-476.
186. Tonn, B.E., Social Science Computer Review ARTICLE: *Global society and information technology - Social science challenges in the 21st century*. Social Science Computer Review, 1996. **14**(1): p. 78-80.

187. Tuskan, G.A., K.E. Francis, S.L. Russ, W.H. Romme, and M.G. Turner, Canadian Journal of Forest Research ARTICLE: *RAPD markers reveal diversity within and among clonal and seedling stands of aspen in Yellowstone National Park, USA*. Canadian Journal of Forest Research, 1996. **26**(12): p. 2088-2098.
188. Wullschleger, S.D., M.A. Sanderson, S.B. McLaughlin, D.P. Biradar, and A.L. Rayburn, Crop Sci. ARTICLE: *Photosynthetic rates and ploidy levels among populations of switchgrass*. Crop Sci., 1996. **36**(2): p. 306-312.
189. Wullschleger, S.D., P.J. Hanson, and D.E. Todd, Tree Physiol. ARTICLE: *Measuring stem water content in four deciduous hardwoods with a time-domain reflectometer*. Tree Physiol., 1996. **16**(10): p. 809-815.
190. Wullschleger, S.D., P.J. Hanson, and G.S. Edwards, Plant Cell Environ. ARTICLE: *Growth and maintenance respiration in leaves of northern red oak seedlings and mature trees after 3 years of ozone exposure*. Plant Cell Environ., 1996. **19**(5): p. 577-584.
191. Yang, Z., R.S. Burlage, W.E. Sanford, and G.R. Moline, Abstr. Pap. Am. Chem. Soc. ARTICLE: *DNA-labeled silica microspheres for groundwater tracing and colloid transport studies*. Abstr. Pap. Am. Chem. Soc., 1996. **212**: p. 22-ENVR.
192. Zhang, C.L., S. Liu, J. Logan, R. Mazumder, and T.J. Phelps, Appl. Biochem. Biotechnol. ARTICLE: *Enhancement of Fe(III), Co(III), and Cr(VI) reduction at elevated temperatures and by a thermophilic bacterium*. Appl. Biochem. Biotechnol., 1996. **57-8**: p. 923-932.
193. Zhang, C., S. Liu, T.J. Phelps, D.R. Cole, S.M. Fortier, J. Horita, and J.W. Valley, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Mineralogy and oxygen isotope composition of microbially produced magnetic iron oxides at thermophilic temperatures*. Abstr. Pap. Am. Chem. Soc., 1996. **211**: p. 122-GEOC.

#### 1996 Reports

194. Anderson, J.E.,REPORT: *Geology Summary of Waste Area Grouping 5 at Oak Ridge National Laboratory, Oak Ridge, Tennessee,ORNL/ER/MS-1.1996,*
195. Boden, T.A.,REPORT: *Report of Foreign Travel by T. A. Boden, September 14-21, 1996,ORNL/FTR-5930.1996,*
196. Borders, D.M., D.S. Hicks, R.B. Clapp, and T.M. Scanlon,REPORT: *Effectiveness of (Sup 90)Sr Removal Actions in the White Oak Creek Watershed, 1995,ORNL/M-5334.1996,*
197. Bradshaw, T.,REPORT: *Poplar Molecular Genetics Cooperative Annual Progress Report 1 January - 31 December 1996,ORNL/M-5900.1996,*
198. Brown, G.M., D.J. Presley, P.V. Bonnesen, L.M. Bates, B.A. Moyer, S.D. Alexandratos, V. Patel, B. Gu, L. Liang, and R.L. Siegrist,REPORT: *Resins for Selective Sorption of Technetium from Groundwater FY 1996 Letter Report,ORNL/M-5480.1996,*
199. Brown, G.M., D.J. Presley, P.V. Bonnesen, L.M. Bates, B.A. Moyer, S.D. Alexandratos, L.A. Hussain, V. Patel, B. Gu, L. Liang, and R.L. Siegrist,REPORT: *Column Tests of Resins for Selective Sorption of Technetium from Groundwater,ORNL/M-5508.1996,*
200. Brown, G.M., L.M. Bates, P.V. Bonnesen, B.A. Moyer, S.D. Alexandrator, L.A. Hussain, V. Patel, B. Gu, L. Liang, and R.L. Siegrist,REPORT: *Sorption of Tc from Contaminated Groundwater on Resins FY 1996 Letter Report,ORNL/M-5088.1996,*
201. Burlage, R.S.,REPORT: *Project Work Plan: Field Release of Genetically Engineered Bioluminescent Reporter Bacteria for PAH Bioremediation in Subsurface Soil,ORNL/M-5448.1996,*
202. Cada, G.F.,REPORT: *Report of Foreign Travel by G. F. Cada, September 21-30, 1996,ORNL/FTR-5954.1996,*
203. Carrico, B.A. and M.G. Ryon,REPORT: *An Ecological Study on the Introduction of the Banded Sculpin into a Coal Flyash Impacted Stream,ORNL/TM-13175.1996,*
204. Clapp, R.B., D.D. Huff, T.M. Scanlon, and D.M. Borders,REPORT: *Radionuclide Discharges in White Oak Creek Watershed, 1995,ORNL/M-5333.1996,*

205. Conway, T.J., P.P. Tans, and T.A.E. Boden,REPORT: Atmospheric Carbon Dioxide Mixing Ratios from the NOAA Climate Monitoring and Diagnostics Laboratory Cooperative Flask Sampling Network, 1967-1993,ORNL/CDIAC-73.1996,
206. Cooper, L.W.,REPORT: Report of Foreign Travel by L. W. Cooper, September 4-9, 1996,ORNL/FTR-5910.1996,
207. Cooper, L.W.,REPORT: Report of Foreign Travel by L. W. Cooper, June 10-15, 1996,ORNL/FTR-5833.1996,
208. Coutant, C.C.,REPORT: Report of Foreign Travel by C. C. Coutant, September 3-9, 1996,ORNL/FTR-5926.1996,
209. Coutant, C.C.C.,REPORT: Summary Report, Panel on Gas Bubble Disease, Third Working Group Meeting, Seattle, WA, February 1-3,1996,ORNL/M-5195.1996,
210. Cushman, R.M. and M.D. Burtis,REPORT: Carbon Dioxide Information Analysis Center and World Data Center - A for Atmospheric Trace Gases, Catalog of Databases and Reports,ORNL/CDIAC-34/R6.1996,
211. Cushman, R.M., T.A. Boden, S.B. Jones, T. Nelson, F.W. Stoss, and M.D. Burtis, Compiler,REPORT: Carbon Dioxide Information Analysis Center World Data Center-A for Atmospheric Trace Gases,ORNL/CDIAC-89.1996,
212. Dorsch, J., T.J. Katsube, W.E. Sanford, B.E. Dugan, and L.M. Tourkow,REPORT: Effective Porosity and Pore-Throat Sizes of Consauga Group Mudrock: Application, Test and Evaluation of Petrophysical Techniques,ORNL/M-5321.1996,
213. Dorsch, J. and T.J. Katsube,REPORT: Effective Porosity and Pore-Throat Sizes of Mudrock Saprolite from the Nolichucky Shale Within Bear Creek Valley on the Oak Ridge Reservation: Implications for Contaminant Transport and Retardation Through Matrix Diffusion,ORNL/M-5297.1996,
214. Field, J.M. and L.D. Voorhees,REPORT: Report of Foreign Travel by J. M. Field and L. D. Voorhees, June 27 - July 1, 1996,ORNL/FTR-5868.1996,
215. Frazier, D.W., D.C. West, S.C. Newman, P.A. Sperling, and C.M. Horak,REPORT: Portsmouth Gaseous Diffusion Plant Annual Site Environmental Report Summary for 1994,ES/ESH-64.1996,
216. Gardner, F.G., P.M. Kearl, M.E. Mumby, and S. Rogers,REPORT: Hydrogeologic Investigation of the Advanced Coal Liquefaction Research and Development Facility, Wilsonville, Alabama,ORNL/TM-13134.1996,
217. Gates, D.D., P.A. Cameron, K.T. Klasson, and L.J. Koran, Jr.,REPORT: Removal of Mercury from Storm Sewer Sediment Using the Potassium Iodide/Iodine Leaching Process,ORNL/M-5447.1996,
218. Goyet, C., P.R. Guenther, C.D. Keeling, L.D. Talley, and A. Kozyr,REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the Thomas Washington Cruise Tunes-3 in the Equatorial Pacific Ocean (WOCE Section P16C),ORNL/CDIAC-96.1996,
219. Graham, R.L.,REPORT: Report of Foreign Travel by R. L. Graham, March 9-18, 1996,ORNL/FTR-5742.1996,
220. Gu, B. and K.E. Dowlen,REPORT: An Investigation of Groundwater Organics, Soil Minerals, and Activated Carbon on the Complexation, Adsorption, and Separation of Technetium-99,ORNL/TM-13154.1996,
221. Gu, B. and R.L. Siegrist,REPORT: Alkaline Dechlorination of Chlorinated Volatile Organic Compounds,ORNL/TM-13263.1996,
222. Hall, R.B., R.D. Hanna, E.R. Hart, H. Heybroek, and S. McNabb, Jr.,REPORT: Selection and Breeding of Pest-Resistant Cones of Populus for Biomass Energy Production in the North Central Region, Annual Report for the Period January 1, 1995 - December 31, 1995 and 1996-97 Extension Proposal,ORNL/M-5027.1996,
223. Hamilton, L.V., L.W. McMahan, J.G. Rogers, L.G. Shipe, and D.C. West,REPORT: Oak Ridge Reservation Annual Site Environmental Report Summary for 1995,ES/ESH-70.1996,
224. Hamilton, L.V., D.C. West, L.W. McMahan, L.G. Shipe, and W.S. Koncinski,REPORT: Oak

- Ridge Reservation Annual Site Environmental Report for 1995,ES/ESH-69.1996,
225. Herbes, S.,REPORT: Remedial Investigation/Feasibility Study for the Clinch River/Poplar Creek Operable Unit, Volume 3. Appendixes E and F - Risk Assessment Information,ORNL/ER-315/V3&D3.1996,
  226. Herbes, S.,REPORT: Remedial Investigation/Feasibility Study for the Clinch River/Poplar Creek Operable Unit, Volume 1. Main Text,ORNL/ER-315/V1&D2.1996,
  227. Herbes, S.,REPORT: Remedial Investigation/Feasibility Study for the Clinch River/Poplar Creek Operable Unit, Volume 5. Appendixes J, K, L, M, and N - Other Supporting Information,ORNL/ER-315/V5&D3.1996,
  228. Herbes, S.,REPORT: Remedial Investigation/Feasibility Study for the Clinch River/Poplar Creek Operable Unit, Volume 4. Appendixes G, H, and I - Information Related to the Feasibility Study and ARARs,ORNL/ER-315/V4&D3.1996,
  229. Herbes, S.E.,REPORT: Remedial Investigation/Feasibility Study for the Clinch River/Poplar Creek Operable Unit, Volume 3. Risk Assessment Information, Appendixes E, F,ORNL/ER-315/V3&D2.1996,
  230. Herbes, S.,REPORT: Remedial Investigation/Feasibility Study for the Clinch River/Poplar Creek Operable Unit, Volume 2. Appendixes A, B, C, and D - Biota and Representative Concentrations of Contaminants,ORNL/ER-315/V2&D3.1996,
  231. Hildebrand, S.G. and G.E. Chitwood,REPORT: Final Report for the ESH&Q Integrated Management Assessment of the ORNL Instrumentation & Controls Division (I&C) - [X-96-03],ORNL/CF-96/27.1996,
  232. Hill, W.R. and C.A. Branson,REPORT: Biological Monitoring and Abatement Program, QAP-X-90-ES-064, Rev. 01; ESQAP-95-0720, Rev. 0; QAP-X-92-ES-086, Rev. 01; QAP-X-90-ES-065, Rev. 01; QAP-X-90-ES-067, Rev. 01,ORNL/FPO-96/3.1996,
  233. Hill, L.J., D.B. Hunsaker, and T.R. Curlee,REPORT: The Principles of Life-Cycle Analysis,ORNL/TM-13178.1996,
  234. Jardine, P.M., S.C. Brooks, D.L. Taylor, S.E. Fendorf, and R. Patterson,REPORT: In-Situ Measurements of Oxide Mineral Reduction Using X-Ray Absorption Spectroscopy,ORNL/M-5516.1996,
  235. Jones, T.L., L.E. Toran, and D.B. Watson,REPORT: Variable-Density Flow and Transport Modeling to Evaluate Anomalous Nitrate Concentrations and Pressures in GW-134,ORNL/M-5231.1996,
  236. Kaiser, D.P.,REPORT: Report of Foreign Travel by D. Kaiser, August 9-18, 1996,ORNL/FTR-5897.1996,
  237. King, A.W.,REPORT: Report of Foreign Travel by A. W. King, July 7-12, 1996,ORNL/FTR-5864.1996,
  238. Kszos, L.A.E., M.J. Peterson, R.B. Petrie, M.G. Ryon, M.R. Smith, G.R. Southworth, and J.R. Sumner,REPORT: Report on the Biological Monitoring Program at Paducah Gaseous Diffusion Plant, January-December 1995,ORNL/TM-13190.1996,
  239. Kszos, L.A., R.L. Hinzman, M.J. Peterson, M.G. Ryon, M.R. Smith, G.R. Southworth, and J.R. Summer,REPORT: Report on the Biological Monitoring Program at Paducah Gaseous Diffusion Plant, December 1993 to December 1994,ORNL/TM-12942.1996,
  240. Lindberg, S.E.,REPORT: Report of Foreign Travel by S. E. Lindberg, July 13 - August 16, 1996,ORNL/FTR-5896.1996,
  241. Luxmoore, R.J.,REPORT: Report of Foreign Travel by R. J. Luxmoore, November 24 - December 14, 1996,ORNL/FTR-6047.1996,
  242. Luxmoore, R.J.,REPORT: Report of Foreign Travel by R. J. Luxmoore, February 21 - March 2, 1996,ORNL/FTR-5728.1996,
  243. Marland, G.,REPORT: Report of Foreign Travel by G. Marland, March 26-30, 1996,ORNL/FTR-5756.1996,
  244. Marland, G.,REPORT: Report of Foreign Travel by G. Marland, July 26-31, 1996,ORNL/FTR-5892.1996,

245. Marland, G.,REPORT: Report of Foreign Travel by G. Marland, February 24-29, 1996,ORNL/FTR-5725.1996,
246. McCarthy, J.F. and C.B. Ravina,REPORT: Report of Foreign Travel by J. F. McCarthy and C. B. Ravina, September 6-16, 1996,ORNL/FTR-5925.1996,
247. McCold, L.N., D.P. Cleary, R.B. Braid, G.F. Cada, J.B. Cannon, C.E. Easterly, C.H. Hagan, R.L. Kroodsmas, R.R. Lee, M.A. Linn, R.B. McLean, R.L. Miller, H.D. Quarles, J.W. Saulsbury, S.M. Schexnayder, M. Schweitzer, W.P. Staub, D.C. Agouridis, C.R. Boston, and A.W. Campbell,REPORT: Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Main Report - Final Report,ORNL/M-5181.1996,
248. McConnell, J.W., Jr., R.D. Rogers, J.D. Jastrow, W.E. Sanford, I.L. Larson, and T.M. Sullivan,REPORT: Field Lysimeter Investigations: Low-Level Waste Data Base Development Program for Fiscal Year 1995,ORNL/M-5237.1996,
249. Morrissey, C.M. and G.R. Cunningham,REPORT: Active Sites Environmental Monitoring Program FY 1995 Annual Report,ORNL/M-4950.1996,
250. Napolitano, G.E., J.E. Richmond, and A.J. Stewart,REPORT: Analysis of Hydrocarbon Classes in Petroleum-Contaminated Soils by TLC/FID,ORNL/M-5319.1996,
251. Palumbo, A.V.,REPORT: Report of Foreign Travel by A. V. Palumbo, September 14-25, 1996,ORNL/FTR-5943.1996,
252. Phelps, T.J.,REPORT: Report of Foreign Travel by T. J. Phelps, September 10-29, 1996,ORNL/FTR-5944.1996,
253. Phipps, T.L. and L.A. Kszos,REPORT: Bioavailability Study for the Paducah Gaseous Diffusion Plant,ORNL/TM-13258.1996,
254. Post, W.M.,REPORT: Report of Foreign Travel by W. M. Post, January 20 - February 25, 1996,ORNL/FTR-5722.1996,
255. Quarles, H.D.,REPORT: Report of Foreign Travel by H. D. Quarles, October 5-13, 1996,ORNL/FTR-5977.1996,
256. Razuvaev, V.N., G. Sivachok, and M.D. Burtis,REPORT: Selected Translated Abstracts of Russian-Language Climate-Change Publications, IV. General Circulation Models,ORNL/CDIAC-94.1996,
257. Riemenschneider, D.E. and J.G. Isebrand,REPORT: Regional Testing of Populus Clones Annual Progress Report, March 12, 1996,ORNL/M-5028.1996,
258. Ryon, M.G., L.A. Baron, J.M. Bricker, B.A. Carrico, C.T. Garten, R.P. Hoffmeister, M.J. Peterson, E.M. Schilling, J.G. Smith, G.R. Southworth, A.J. Stewart, and L.F. Wicker,REPORT: Ecological Effects of Contaminants in McCoy Branch, 1991-1993,ORNL/TM-13125.1996,
259. Siegrist, R.L.,REPORT: In Situ Remediation of DNAPL Compounds in Low Permeability Media Fate/Transport, In Situ Control Technologies, and Risk Reduction,ORNL/TM-13305.1996,
260. Sigmon, C.F., A.A. Aramowicz Smith, and F.R. Reeves,REPORT: Report of Foreign Travel by C. F. Sigmon, A. A. Aramowicz Smith and F. R. Reeves, September 14-20, 1996,ORNL/FTR-5960.1996,
261. Sigmon, C.F., A. Smith, S.A. Ashburn, M.L. Bell, and F.R. Reeves,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Beale Air Force Base, California - Preliminary Report,ORNL/M-5194.1996,
262. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, and F.R. Reeves,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Howard Air Force Base, Panama, Preliminary Report,ORNL/M-5504.1996,
263. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, F.R. Reeves, and M.J. Rooks,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings Nellis Air Force Range, Nevada Preliminary Report,ORNL/M-5474.1996,
264. Sigmon, C.F., A.A. Aramowicz Smith, S.A. Ashburn, and R.F. Reeves,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings - Minot Air Force Base, North Dakota, Final Report (Revision 2),ORNL/M-5216.1996,



265. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, and M.L. Bell,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Holloman Air Force Base, New Mexico, Preliminary Report,ORNL/M-5078.1996,
266. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, M.L. Bell, F.R. Reeves, M.J. Rooks, and K. Campbell,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings for Mountain Home Air Force Base and Saylor Creek Air Force Range Idaho, Preliminary Report,ORNL/M-4990.1996,
267. Sjoreen, A.L. and L.E. Toran,REPORT: CHEMFORM User's Guide,ORNL/M-4988.1996,
268. Spalding, B.,REPORT: Technical Evaluation Summary of the In Situ Vitrification Melt Expulsion at the Oak Ridge National Laboratory on April 21, 1996, Oak Ridge, Tennessee,ORNL/ER-374/R1.1996,
269. Spalding, B.P.,REPORT: Technical Evaluation of the In Situ Vitrification Melt Expulsion at the Oak Ridge National Laboratory on April 21, 1996, Oak Ridge, Tennessee,ORNL/ER-377.1996,
270. Spalding, B.P.,REPORT: Technical Evaluation Summary of the In Situ Vitrification Melt Expulsion at the Oak Ridge National Laboratory on April 21, 1996, Oak Ridge, Tennessee,ORNL/ER-374.1996,
271. Stow, S.H.,REPORT: Attitudes and Practices Regarding Disposal of Liquid Nuclear Waste at Clinton Laboratories in the Very Early Years: A Historical Analysis,ORNL/M-4913.1996,
272. Suter, G.W., II,REPORT: Report of Foreign Travel by G.W. Suter, July 14-23, 1996,ORNL/FTR-5877.1996,
273. Suter, G.,REPORT: Waste Area Grouping 2 - Phase I Task Data Report: Ecological Risk Assessment and White Oak Creek Watershed Screening Ecological Risk Assessment,ORNL/ER-366.1996,
274. Taliaferro, C.M. and A.A. Hopkins,REPORT: Breeding and Selection of New Switchgrass Varieties for Increased Biomass Production,ORNL/M-5010.1996,
275. Traynin, P., M. Zhdanov, J. Nyquist, L.P. Beard, and W. Doll,REPORT: A new approach to interpretation of airborne magnetic and electromagnetic data,CONF-960477--7.Apr,1996,
276. Tschaplinski, T.J., G.A. Tuskan, G.M. Gebre, and D.E. Todd,REPORT: Biochemical Basis of Drought Tolerance in Hybrid Populus Grown Under Field Production Conditions,ORNL/M-5006.1996,
277. Turner, R.R.,REPORT: Report of Foreign Travel by R.R. Turner, August 3-9, 1996,ORNL/FTR-5891.1996,
278. Turner, R.S. and F.M. O'Hara, Jr.,REPORT: Integrated Assessment of Global Change - Characterizing Key Policy Issues,ORNL/M-4951.1996,
279. Turner, R.S., W.H. Ramsey, H.E. Cardwell, F. O'Hara, M. Bell, and S.L. Davis,REPORT: Options for Regional Integrated Assessment of Climate Change,ORNL/M-5482.1996,
280. Van Winkle, W., H.I. Jager, and B.D. Holcomb,REPORT: An individual-based instream flow model for coexisting populations of brown and rainbow trout,EPRI-TR-106258.Mar,1996,Oak Ridge:Oak Ridge National Laboratory
281. Washington-Allen, R.A. and T.L. Ashwood,REPORT: Terrestrial Habitat Mapping of the Oak Ridge Reservation: 1996 Summary,ES/ER/TM-201.1996,
282. West, D.C. and V.W. Jones,REPORT: Paducah Gaseous Diffusion Plant Annual Environmental Report Summary for 1994,ES/ESH-61.1996,
283. West, O.R., L. Liang, W.L. Holden, N.E. Korte, Q. Fernando, and J.L. Clausen,REPORT: Degradation of Polychlorinated Biphenyls (PCBs) Using Palladized Iron,ORNL/TM-13217.1996,
284. West, D.C. and S.C. Newman,REPORT: Portsmouth Site Annual Environmental Data for 1994,ES/ESH-65.1996,
285. West, O.R., C.K. Bayne, R.L. Siegrist, W.L. Holden, S.S. Scarborough, and D.W. Bottrell,REPORT: Stability of Purgeable VOCs in Water Samples During Pre-analytical Holding, Part 1. Analyses of a Commercial Laboratory,ORNL/TM-13240/V1.1996,

286. White, D.C.,REPORT: Summary Report on Group V, American Academy for Microbiology Colloquium on Microbial Biodiversity,ORNL/M-5063.1996,
287. Wright, L.L.,REPORT: Report of Foreign Travel by L. L. Wright, August 12-17, 1996,ORNL/FTR-5900.1996,
288. Wright, L.L. and R.L. Graham,REPORT: Report of Foreign Travel by L. L. Wright and R. L. Graham, June 19 - July 3, 1996,ORNL/FTR-5854.1996,
289. Wullschleger, S.D., L.E. Gunter, and G.A. Tuskan,REPORT: Research on Improving the Productivity of Switchgrass (*Panicum Virgatum*) as a Biofuels Crop - Assessing Genotypic Diversity with Physiological and Molecular Indicators,ORNL/M-5011.1996,

#### 1997 Book Sections

290. Arrage, A.A. and D.C. White, BOOK SECTION: *Monitoring Biofilm-Induced Persistence of Mycobacterium in Drinking Water Systems Using GFP Fluorescence*. 1997, John Wiley & Sons: New York. p. 445-450.
291. Burlage, R.S., BOOK SECTION: *Organic Contaminant Detection and Biodegradation Characteristics*. 1997, Humana Press.
292. Burlage, R.S., J. Strong-Gunderson, C. Steward, and U. Matrubutham, BOOK SECTION: *Bioreporters and Biosensors for Environmental Analysis*. 1997, Plenum Press. p. 261-268.
293. Dale, V.H., BOOK SECTION: *Managing Forests as Ecosystems: A Success Story of a Challenge Ahead?* 1997, Springer-Verlag: New York. p. 22.
294. Dinus, R.J. and G.A. Tuskan, BOOK SECTION: *Integration of Molecular and Classical Genetics: A Synergistic Approach to Tree Improvement*. 1997, U.S. Printing Office. p. 220-235.
295. Flannery, B.P., G. Marland, W. Broecker, H. Kheshgi, H. Ishitani, H. Komiyama, M. MacCracken, N. Rosenberg, M. Steinberg, and T. Wigley, BOOK SECTION: *Geoengineering Climate*. 1997, CRC Press, Lewis Publishers. p. 379-427.
296. Fredrickson, J.K. and T.J. Phelps, BOOK SECTION: *Subsurface Drilling and Sampling*. 1997, ASM Press. p. 526-540.
297. Griffin, W.T., T.J. Phelps, F.S. Colwell, and J.K. Fredrickson, BOOK SECTION: *Methods for Obtaining Deep Subsurface Microbiological Samples by Drilling*. 1997, CRC Press. p. 23-44.
298. Hinzman, R.L., BOOK SECTION: *Case Study 5 - Using Long-Term Biological Monitoring Data to Evaluate the Recovery of Disturbed Systems: The Biological Monitoring and Abatement Program, oak Ridge National Laboratory*. 1997, Water Environment Federation: Alexandria. p. 128-38.
299. Hunsaker, C.T., BOOK SECTION: *Preface*. 1997, Water Environment Federation: Alexandria. p. xv-xvi.
300. Hunsaker, C.T., K. Dickson, W. Waller, and E. Morgan, BOOK SECTION: *Watershed/Regional Assessment and In-Stream Monitoring*. 1997, Water Environment Federation: Alexandria. p. 5-1--5-60.
301. Keift, T.L. and T.J. Phelps, BOOK SECTION: *Life in the Slow Lane: Activities of Microorganisms in the Subsurface*. 1997, CRC Press. p. 137-63.
302. Kim, K.H., P.J. Hanson, M.O. Barnett, and S.E. Lindberg, BOOK SECTION: *Biogeochemistry of mercury in the air-soil-plant system*, in *Metal Ions in Biological Systems, Vol 34*. 1997. p. 185-212.
303. Kim, K.-H., P.J. Hanson, M.O. Barnett, and S.E. Lindberg, BOOK SECTION: *Biogeochemistry of Mercury in the Air-Soil-Plant System*. 1997, Mercel Dekker, Inc. p. 185-212.
304. King, A.W., BOOK SECTION: *Hierarchy Theory: A Guide to System Structure for Wildlife Biologists*. 1997, Springer-Verlag. p. 185-212.
305. Lipschultz, M., W. Foster, and L.A. Kszos, BOOK SECTION: *Biomonitoring Test Procedures*. 1997, Water Environment Federation: Alexandria. p. 3-1--3-25.
306. Suter, G.W., II, BOOK SECTION: *Retrospective Assessment, Ecoepidemiology, and*

- Ecological Monitoring*. 1997, Blackwell Scientific. p. 177-217.
307. Suter, G.W., II, BOOK SECTION: *Overview of the Ecological Risk Assessment Framework*. 1997, SETAC Press. p. 1-6.
308. White, D.C., D.B. Ringelberg, and R.J. Palmer, BOOK SECTION: *Quantitative Comparison of the In Situ Microbial Communities in Different Biomes*. 1997, SBM - Brazilian Society for Microbiology; ICOME - International Committee on Microbial Ecology. p. 245-55.

#### 1997 Conference Papers

309. Gu, B., L. Liang, O.R. West, P. Cameron, and D.D. Davenport. CONFERENCE PAPER: *Degradation of trichloroethylene (TCE) and polychlorinated biphenyls (PCBs) by Fe and Fe-Pd bimetal in the presence of surfactants and cosolvents*. in *International containment technology conference and exhibition, 9-12 Feb 1997*. 1997. St. Petersburg, FL: USDOE Office of Environmental Restoration and Waste Management.

#### 1997 Journal Articles

310. Adams, S.M. and M. Power, *Environ. Manage.* ARTICLE: *Assessing the current status of ecological risk assessment*. *Environ. Manage.*, 1997. **21**(6): p. 825-830.
311. Barnett, M.O., L.A. Harris, R.R. Turner, R.J. Stevenson, T.J. Henson, R.C. Melton, and D.P. Hoffman, *Environ. Sci. Technol.* ARTICLE: *Formation of mercuric sulfide in soil*. *Environ. Sci. Technol.*, 1997. **31**(11): p. 3037-3043.
312. Baron, L.A., T.L. Ashwood, B.E. Sample, and C. Welsh, *Environ. Monit. Assess.* ARTICLE: *Monitoring bioaccumulation of contaminants in the belted kingfisher (Ceryle alcyon)*. *Environ. Monit. Assess.*, 1997. **47**(2): p. 153-165.
313. Beasley, T.M., L.W. Cooper, J.M. Grebmeier, L.R. Kilius, and H.A. Synal, *Environ. Sci. Technol.* ARTICLE: *Cl-36 and I-129 in the Yenisei, Kolyma, and Mackenzie rivers*. *Environ. Sci. Technol.*, 1997. **31**(6): p. 1834-1836.
314. Blau, P.J., K.C. Ludema, S.K. Rhee, W.A. Glaeser, A.W. Ruff, S. Bahadur, R.G. Bayer, D.A. Rigney, O. Vingsbo, and J. LarsenBasse, *Wear* ARTICLE: *The birth and history of the International Conferences on Wear of Materials*. *Wear*, 1997. **203**: p. 1-10.
315. Cada, G.F., M.D. Deacon, S.V. Mitz, and M.S. Bevelhimer, *Rev. Fish. Sci.* ARTICLE: *Effects of water velocity on the survival of downstream-migrating juvenile salmon and steelhead: a review with emphasis on the Columbia River Basin*. *Rev. Fish. Sci.*, 1997. **5**(2): p. 131-183.
316. Carpi, A., S.E. Lindberg, E.M. Prestbo, and N.S. Bloom, *J. Environ. Qual.* ARTICLE: *Methyl mercury contamination and emission to the atmosphere from soil amended with municipal sewage sludge*. *J. Environ. Qual.*, 1997. **26**(6): p. 1650-1655.
317. Carpi, A. and S.E. Lindberg, *Environ. Sci. Technol.* ARTICLE: *Sunlight-mediated emission of elemental mercury from soil amended with municipal sewage sludge*. *Environ. Sci. Technol.*, 1997. **31**(7): p. 2085-2091.
318. Clark, D.A. and K.A. Rose, *N. Am. J. Fish. Manage.* ARTICLE: *An individual-based modeling analysis of management strategies for enhancing brook trout populations in southern Appalachian streams*. *N. Am. J. Fish. Manage.*, 1997. **17**(1): p. 54-76.
319. Clark, M.E. and K.A. Rose, *Ecol. Model.* ARTICLE: *Individual-based model of stream-resident rainbow trout and brook char: Model description, corroboration, and effects of sympatry and spawning season duration*. *Ecol. Model.*, 1997. **94**(2-3): p. 157-175.
320. Clark, M.E. and K.A. Rose, *Trans. Am. Fish. Soc.* ARTICLE: *Factors affecting competitive dominance of rainbow trout over brook trout in southern Appalachian streams: Implications of an individual-based model*. *Trans. Am. Fish. Soc.*, 1997. **126**(1): p. 1-20.
321. Colwell, F.S., T.C. Onstott, M.E. Delwiche, D. Chandler, J.K. Fredrickson, Q.J. Yao, J.P. McKinley, D.R. Boone, R. Griffiths, T.J. Phelps, D. Ringelberg, D.C. White, L. LaFreniere, D. Balkwill, R.M. Lehman, J. Konisky, and P.E. Long, *Fems Microbiol. Rev.* ARTICLE:

- Microorganisms from deep, high temperature sandstones: Constraints on microbial colonization.* Fems Microbiol. Rev., 1997. **20**(3-4): p. 425-435.
322. Cooper, L.W., T.E. Whitledge, J.M. Grebmeier, and T. Weingartner, J. Geophys. Res.-Oceans ARTICLE: *The nutrient, salinity, and stable oxygen isotope composition of Bering and Chukchi Seas waters in and near the Bering Strait.* J. Geophys. Res.-Oceans, 1997. **102**(C6): p. 12563-12573.
323. Coutant, C.C., Fisheries ARTICLE: *An interface: Council of Aquatic Sciences.* Fisheries, 1997. **22**(3): p. 33-33.
324. Czerwinski, K.R., J.F. McCarthy, W.E. Sanford, P.M. Jardine, and J.D. Marsh, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Geochemical modeling of trivalent actinide ions and natural organic matter.* Abstr. Pap. Am. Chem. Soc., 1997. **214**: p. 25-NUCL.
325. Dale, V.H., Ecol. Appl. ARTICLE: *The relationship between land-use change and climate change.* Ecol. Appl., 1997. **7**(3): p. 753-769.
326. Datz, S., H.F. Krause, C.R. Vane, P.F. Dittner, E.F. Deveney, H. Knudsen, P. Grafstrom, R. Schuch, H. Gao, and R. Hutton, Nucl. Instrum. Methods Phys. Res. Sect. B-Beam Interact. Mater. Atoms ARTICLE: *Atomic collisions at ultrarelativistic energies: 6.4 TeV S and 33.2 TeV Pb.* Nucl. Instrum. Methods Phys. Res. Sect. B-Beam Interact. Mater. Atoms, 1997. **124**(2-3): p. 169-176.
327. Desjardins, R.L., J.I. MacPherson, L. Mahrt, P. Schuepp, E. Pattey, H. Neumann, D. Baldocchi, S. Wofsy, D. Fitzjarrald, H. McCaughey, and D.W. Joiner, J. Geophys. Res.-Atmos. ARTICLE: *Scaling up flux measurements for the boreal forest using aircraft-tower combinations.* J. Geophys. Res.-Atmos., 1997. **102**(D24): p. 29125-29133.
328. Edwards, N.T., Y.C. Wang, T.J. Tschaplinski, and P.J. Hanson, Plant Physiol. ARTICLE: *Stem respiration, water relations and leaf phenology responses in Acer rubrum L to soil moisture status in a mature upland oak forest in Tennessee.* Plant Physiol., 1997. **114**(3): p. 468-468.
329. Faulkner, J.S., Y. Wang, and G.M. Stocks, J. Phase Equilib. ARTICLE: *Coulomb energies in disordered alloys and improvements on the coherent potential approximation.* J. Phase Equilib., 1997. **18**(6): p. 499-508.
330. Faulkner, J.S., Y. Wang, and G.M. Stocks, Phys. Rev. B ARTICLE: *Coulomb energies in alloys.* Phys. Rev. B, 1997. **55**(12): p. 7492-7507.
331. Fendorf, S., P.M. Jardine, and S.C. Brooks, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Sorption induced inhibition of redox reactions involving manganese oxides.* Abstr. Pap. Am. Chem. Soc., 1997. **213**: p. 60-GEOC.
332. Fredrickson, J.K., J.P. McKinley, B.N. Bjornstad, P.E. Long, D.B. Ringelberg, D.C. White, L.R. Krumholz, J.M. Sufliata, F.S. Colwell, R.M. Lehman, T.J. Phelps, and T.C. Onstott, Geomicrobiol. J. ARTICLE: *Pore-size constraints on the activity and survival of subsurface bacteria in a late Cretaceous shale-sandstone sequence, northwestern New Mexico.* Geomicrobiol. J., 1997. **14**(3): p. 183-202.
333. Garcia, E.F., R.J. McPherson, T.H. Martin, R.A. Poth, and M.S. Greeley, Arch. Environ. Contam. Toxicol. ARTICLE: *Liver cell estrogen receptor binding in prespawning female largemouth bass, Micropterus salmoides, environmentally exposed to polychlorinated biphenyls.* Arch. Environ. Contam. Toxicol., 1997. **32**(3): p. 309-315.
334. Graham, R.L., W. Liu, M. Downing, C.E. Noon, M. Daly, and A. Moore, Biomass Bioenerg. ARTICLE: *The effect of location and facility demand on the marginal cost of delivered wood chips from energy crops: A case study of the state of Tennessee.* Biomass Bioenerg., 1997. **13**(3): p. 117-123.
335. Gu, B.H. and R.L. Siegrist, J. Environ. Eng.-ASCE ARTICLE: *Dehalogenation of chlorinated organic compounds by strong alkalis.* J. Environ. Eng.-ASCE, 1997. **123**(10): p. 982-987.
336. Gunderson, C.A., J.M. Kostuk, M.H. Gibbs, G.E. Napolitano, L.F. Wicker, J.E. Richmond, and A.J. Stewart, Environ. Toxicol. Chem. ARTICLE: *Multispecies toxicity assessment of compost produced in bioremediation of an explosives-contaminated sediment.* Environ. Toxicol. Chem., 1997. **16**(12): p. 2529-2537.

337. Ham, K.D., S.M. Adams, and M.J. Peterson, *Ecotox. Environ. Safe.* ARTICLE: *Application of multiple bioindicators to differentiate spatial and temporal variability from the effects of contaminant exposure on fish.* *Ecotox. Environ. Safe.*, 1997. **37**(1): p. 53-61.
338. Hill, W.R., S.M. Dimick, A.R. McNamara, and C.A. Branson, *Limnol. Oceanogr.* ARTICLE: *No effects of ambient UV radiation detected in periphyton and grazers.* *Limnol. Oceanogr.*, 1997. **42**(4): p. 769-774.
339. Holden, W.L., S.R. Cline, O.R. West, N.E. Korte, R.L. Siegrist, and J.L. Baker, *Abstr. Pap. Am. Chem. Soc.* ARTICLE: *Field scale application of deep soil mixing and in situ chemical oxidation.* *Abstr. Pap. Am. Chem. Soc.*, 1997. **213**: p. 63-ENVR.
340. Holmgren, M., M. Scheffer, and M.A. Huston, *Ecology* ARTICLE: *The interplay of facilitation and competition in plant communities.* *Ecology*, 1997. **78**(7): p. 1966-1975.
341. Huston, M.A., *Oecologia* ARTICLE: *Hidden treatments in ecological experiments: Re-evaluating the ecosystem function of biodiversity.* *Oecologia*, 1997. **110**(4): p. 449-460.
342. Jager, H.I., H.E. Cardwell, M.J. Sale, M.S. Bevelhimer, C.C. Coutant, and W. Van Winkle, *Ecol. Model.* ARTICLE: *Modelling the linkages between flow management and salmon recruitment in rivers.* *Ecol. Model.*, 1997. **103**(2-3): p. 171-191.
343. Jager, H.I. and E.J. Pert, *Trans. Am. Fish. Soc.* ARTICLE: *Testing the independence of microhabitat preferences and flow .2. Comment.* *Trans. Am. Fish. Soc.*, 1997. **126**(3): p. 537-540.
344. Jaworska, J.S., K.A. Rose, and A.L. Brenkert, *Ecol. Model.* ARTICLE: *Individual-based modeling of PCBs effects on young-of-the-year largemouth bass in southeastern USA reservoirs.* *Ecol. Model.*, 1997. **99**(2-3): p. 113-135.
345. Kanciruk, P., *Bull. Amer. Meteorol. Soc.* ARTICLE: *Pricing policy for federal research data.* *Bull. Amer. Meteorol. Soc.*, 1997. **78**(4): p. 691-692.
346. Kearl, P.M., *J. Hydrol.* ARTICLE: *Observations of particle movement in a monitoring well using the colloidal borescope.* *J. Hydrol.*, 1997. **200**(1-4): p. 323-344.
347. Kerchner, H.R., D.P. Norton, A. Goyal, J.D. Budai, D.K. Christen, D.M. Kroeger, E.D. Specht, Q. He, M. Paranthaman, D.F. Lee, B.C. Sales, F.A. List, and R. Feenstra, *Appl. Phys. Lett.* ARTICLE: *Alternating current losses in biaxially textured YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-delta films deposited on Ni tapes.* *Appl. Phys. Lett.*, 1997. **71**(14): p. 2029-2031.
348. Khang, Y.H., Z.K. Yang, and R.S. Burlage, *J. Microbiol. Biotechnol.* ARTICLE: *Measurement of iron-dependence of pupA promoter activity by a pup-lux bioreporter.* *J. Microbiol. Biotechnol.*, 1997. **7**(5): p. 352-355.
349. King, A.W., W.M. Post, and S.D. Wullschleger, *Clim. Change* ARTICLE: *The potential response of terrestrial carbon storage to changes in climate and atmospheric CO<sub>2</sub>.* *Clim. Change*, 1997. **35**(2): p. 199-227.
350. Korte, N., O.R. West, L. Liang, M.J. Pelfrey, and T.C. Houk, *Fed. Facil. Environ. J.* ARTICLE: *A field-scale test facility for permeable reactive barriers at the Portsmouth Gaseous Diffusion Plant.* *Fed. Facil. Environ. J.*, 1997. **8**(3): p. 105-114.
351. Kszos, L.A., A.J. Stewart, and J.R. Sumner, *Environ. Toxicol. Chem.* ARTICLE: *Evidence that variability in ambient fathead minnow short-term chronic tests is due to pathogenic infection.* *Environ. Toxicol. Chem.*, 1997. **16**(2): p. 351-356.
352. Lee, S.Y., D.R. Watkins, B.L. Jackson, R.L. Schmoyer, D.A. Lietzke, B.B. Burgoa, J.T. Branson, and J.T. Ammons, *J. Radioanal. Nucl. Chem.* ARTICLE: *Evaluation of metal and radionuclide data from neutron activation and acid-digestion-based spectrometry analyses of background soils: Significance in environmental restoration.* *J. Radioanal. Nucl. Chem.*, 1997. **217**(1): p. 57-64.
353. Liu, S.V., J.Z. Zhou, C.L. Zhang, D.R. Cole, M. Gajdarziska-Josifovska, and T.J. Phelps, *Science* ARTICLE: *Thermophilic Fe(III)-reducing bacteria from the deep subsurface: The evolutionary implications.* *Science*, 1997. **277**(5329): p. 1106-1109.
354. Mann, L.K., J.M. Mitchell, J.W. Evans, J.D. Joslin, and M.D. Roedel, *Migrant* ARTICLE: *Birds of the Oak Ridge Reservation.* *Migrant*, 1997. **68**(3): p. 76-93.

355. Marland, G. and B. Schlamadinger, Biomass Bioenerg. ARTICLE: *Forests for carbon sequestration or fossil fuel substitution? A sensitivity analysis*. Biomass Bioenerg., 1997. **13**(6): p. 389-397.
356. Marland, G., B. Schlamadinger, and P. Leiby, Crit. Rev. Environ. Sci. Technol. ARTICLE: *Forest/biomass based mitigation strategies: Does the timing of carbon reductions matter?* Crit. Rev. Environ. Sci. Technol., 1997. **27**: p. S213-S226.
357. MasPla, J., T.C.J. Yeh, T.M. Williams, and J.F. McCarthy, Ground Water ARTICLE: *Analyses of slug tests and hydraulic conductivity variations in the near field of a two-well tracer experiment site*. Ground Water, 1997. **35**(3): p. 492-501.
358. McCain, W.C., R. Lee, M.S. Johnson, J.E. Whaley, J.W. Ferguson, P. Beall, and G. Leach, J. Toxicol. Environ. Health ARTICLE: *Acute oral toxicity study of pyridostigmine bromide, permethrin, and DEET in the laboratory rat*. J. Toxicol. Environ. Health, 1997. **50**(2): p. 113-124.
359. McCarthy, J.F., Abstr. Pap. Am. Chem. Soc. ARTICLE: *Colloids in ground water: Composition and significance*. Abstr. Pap. Am. Chem. Soc., 1997. **214**: p. 1-ENVR.
360. McKay, L.D., P.L. Stafford, and L.E. Toran, Ground Water ARTICLE: *EPM modeling of a field-scale tritium tracer experiment in fractured, weathered shale*. Ground Water, 1997. **35**(6): p. 997-1007.
361. Mulholland, P.J., G.R. Best, C.C. Coutant, G.M. Hornberger, J.L. Meyer, P.J. Robinson, J.R. Stenberg, R.E. Turner, F. VeraHerrera, and R.G. Wetzel, Hydrol. Process. ARTICLE: *Effects of climate change on freshwater ecosystems of the south-eastern United States and the Gulf Coast of Mexico*. Hydrol. Process., 1997. **11**(8): p. 949-970.
362. Mulholland, P.J., E.R. Marzolf, J.R. Webster, D.R. Hart, and S.P. Hendricks, Limnol. Oceanogr. ARTICLE: *Evidence that hyporheic zones increase heterotrophic metabolism and phosphorus uptake in forest streams*. Limnol. Oceanogr., 1997. **42**(3): p. 443-451.
363. Mulholland, P.J. and W.R. Hill, Water Resour. Res. ARTICLE: *Seasonal patterns in streamwater nutrient and dissolved organic carbon concentrations: Separating catchment flow path and in-stream effects*. Water Resour. Res., 1997. **33**(6): p. 1297-1306.
364. Mulholland, P.J., J. N. Am. Benthol. Soc. ARTICLE: *Organic matter dynamics in the West Fork of Walker Branch, Tennessee, USA*. J. N. Am. Benthol. Soc., 1997. **16**(1): p. 61-67.
365. Mulholland, P.J., J. N. Am. Benthol. Soc. ARTICLE: *Dissolved organic matter concentration and flux in streams*. J. N. Am. Benthol. Soc., 1997. **16**(1): p. 131-141.
366. Nicholson, D.M.C., W.H. Butler, W.A. Shelton, Y. Wang, X.G. Zhang, G.M. Stocks, and J.M. MacLaren, J. Appl. Phys. ARTICLE: *Magnetic structure and electronic transport in permalloy*. J. Appl. Phys., 1997. **81**(8): p. 4023-4025.
367. Norby, R.J., N.T. Edwards, J.S. Riggs, C.H. Abner, S.D. Wullschleger, and C.A. Gunderson, Glob. Change Biol. ARTICLE: *Temperature-controlled open-top chambers for global change research*. Glob. Change Biol., 1997. **3**(3): p. 259-267.
368. Nyquist, J.E., Geotimes ARTICLE: *Unmanned aerial vehicles that even geoscience departments can afford*. Geotimes, 1997. **42**(5): p. 20-23.
369. Oneill, R.V., C.T. Hunsaker, K.B. Jones, K.H. Riitters, J.D. Wickham, P.M. Schwartz, I.A. Goodman, B.L. Jackson, and W.S. Baillargeon, Bioscience ARTICLE: *Monitoring environmental quality at the landscape scale*. Bioscience, 1997. **47**(8): p. 513-519.
370. Palumbo, A.V., J.M. StrongGunderson, and S. Carroll, Appl. Biochem. Biotechnol. ARTICLE: *Retaining and recovering enzyme activity during degradation of TCE by methanotrophs*. Appl. Biochem. Biotechnol., 1997. **63-5**: p. 789-796.
371. Paranthaman, M., A. Goyal, F.A. List, E.D. Specht, D.F. Lee, P.M. Martin, Q. He, D.K. Christen, D.P. Norton, J.D. Budai, and D.M. Kroeger, Physica C ARTICLE: *Growth of biaxially textured buffer layers on rolled-Ni substrates by electron beam evaporation*. Physica C, 1997. **275**(3-4): p. 266-272.
372. Pedlowski, M.A., V.H. Dale, E.A.T. Matricardi, and E.P. DaSilva Filho, Landscape Urban Plan. ARTICLE: *Patterns and impacts of deforestation in Rondonia, Brazil*. Landscape Urban Plan.,

1997. **38**(3-4): p. 149-157.
373. Petersen, R.L., S.R. Hanna, R.L. Miller, J.D. Shannon, J.D. Hill, S.T. Rao, C.G. Lindsey, E.M. Haynes, B.K. Lamb, G.R. Jersey, T. Yamada, G.F. Hoffnagle, M.P. Neilsen, J.B. Barone, T. Palma, V.A. Mirabella, K.K. Wagner, P.M. Fransioli, R.J. Paine, and D.B. Turner, Bull. Amer. Meteorol. Soc. ARTICLE: *Ninth Joint Conference on Applications of Air Pollution Meteorology*. Bull. Amer. Meteorol. Soc., 1997. **78**(5): p. 853-865.
374. Pfiffner, S.M., A.V. Palumbo, T. Gibson, D.B. Ringelberg, and J.F. McCarthy, Appl. Biochem. Biotechnol. ARTICLE: *Relating ground water and sediment chemistry to microbial characterization at a BTEX-contaminated site*. Appl. Biochem. Biotechnol., 1997. **63-5**: p. 775-788.
375. Pfiffner, S.M., A.V. Palumbo, T.J. Phelps, and T.C. Hazen, J. Ind. Microbiol. Biotechnol. ARTICLE: *Effects of nutrient dosing on subsurface methanotrophic populations and trichloroethylene degradation*. J. Ind. Microbiol. Biotechnol., 1997. **18**(2-3): p. 204-212.
376. Post, W.M., A.W. King, and S.D. Wulfschleger, Glob. Biogeochem. Cycle. ARTICLE: *Historical variations in terrestrial biospheric carbon storage*. Glob. Biogeochem. Cycle., 1997. **11**(1): p. 99-109.
377. Ringelberg, D.B., J.O. Stair, J. Almeida, R.J. Norby, E.G. Oneill, and D.C. White, J. Environ. Qual. ARTICLE: *Consequences of rising atmospheric carbon dioxide levels for the belowground microbiota associated with white oak*. J. Environ. Qual., 1997. **26**(2): p. 495-503.
378. Schlamadinger, B., M. Apps, F. Bohlin, L. Gustavsson, G. Jungmeier, G. Marland, K. Pingoud, and I. Savolainen, Biomass Bioenerg. ARTICLE: *Towards a standard methodology for greenhouse gas balances of bioenergy systems in comparison with fossil energy systems*. Biomass Bioenerg., 1997. **13**(6): p. 359-375.
379. Shi, Z.P., Y. Wang, and G.M. Stocks, J. Appl. Phys. ARTICLE: *Ab initio study of biquadratic coupling in Fe/Cr multilayers*. J. Appl. Phys., 1997. **81**(8): p. 3764-3764.
380. Simel, E.J., L.R. Saidak, and G.A. Tuskan, Biotechniques ARTICLE: *Method of extracting genomic DNA from non-germinated gymnosperm and angiosperm pollen*. Biotechniques, 1997. **22**(3): p. 390-&.
381. Squillace, P.J., J.F. Pankow, N.E. Korte, and J.S. Zogorski, Environ. Toxicol. Chem. ARTICLE: *Review of the environmental behavior and fate of methyl tert-butyl ether*. Environ. Toxicol. Chem., 1997. **16**(9): p. 1836-1844.
382. Stevens, R.T., T.L. Ashwood, and J.M. Sleeman, Bull. Environ. Contam. Toxicol. ARTICLE: *Mercury in hair of muskrats (*Ondatra zibethicus*) and mink (*Mustela vison*) from the US Department of Energy Oak Ridge Reservation*. Bull. Environ. Contam. Toxicol., 1997. **58**(5): p. 720-725.
383. StrongGunderson, J.M. and A.V. Palumbo, FEMS Microbiol. Lett. ARTICLE: *Laboratory studies identify a colloidal groundwater tracer: Implications for bioremediation*. FEMS Microbiol. Lett., 1997. **148**(2): p. 131-135.
384. Suter, G.W. and R.A. Efroymson, Environ. Manage. ARTICLE: *Controversies in ecological risk assessment: Assessment scientists respond*. Environ. Manage., 1997. **21**(6): p. 819-822.
385. Suter, G.W., Environ. Health Perspect. ARTICLE: *Integration of human health and ecological risk assessment*. Environ. Health Perspect., 1997. **105**(12): p. 1282-1283.
386. Suter, G.W. and B.E. Sample, Hum. Ecol. Risk Assess. ARTICLE: *Addendum to "annotated reference compilation, 1995 update: Conducting ecological risk assessments at hazardous waste sites"*. Hum. Ecol. Risk Assess., 1997. **3**(2): p. 125-126.
387. Theodorakis, C., B.G. Blaylock, and L.R. Shugart, Ecotoxicology ARTICLE: *Genetic ecotoxicology 1: DNA integrity and reproduction in mosquitofish exposed in situ to radionuclides*. Ecotoxicology, 1997. **6**(4): p. 205-218.
388. Tonn, B.E. and M. Schweitzer, Energy Policy ARTICLE: *Institutional and programmatic suggestions for satisfying public policy responsibilities in a retail competitive electric industry*. Energy Policy, 1997. **25**(1): p. 29-42.
389. Turnage, K.M., S.Y. Lee, J.E. Foss, K.H. Kim, and I.L. Larsen, Environ. Geol. ARTICLE:



- Comparison of soil erosion and deposition rates using radiocesium, RUSLE, and buried soils in dolines in East Tennessee.* Environ. Geol., 1997. **29**(1-2): p. 1-10.
390. Turner, M.G., V.H. Dale, and E.H. Everham, Bioscience ARTICLE: *Fires, hurricanes, and volcanoes: Comparing large disturbances.* Bioscience, 1997. **47**(11): p. 758-768.
391. Turner, M.G., W.H. Romme, R.H. Gardner, and W.W. Hargrove, Ecol. Monogr. ARTICLE: *Effects of fire size and pattern on early succession in Yellowstone National Park.* Ecol. Monogr., 1997. **67**(4): p. 411-433.
392. Tyler, J.A. and K.A. Rose, J. Anim. Ecol. ARTICLE: *Effects of individual habitat selection in a heterogeneous environment on fish cohort survivorship: A modelling analysis.* J. Anim. Ecol., 1997. **66**(1): p. 122-136.
393. Tyler, J.A. and W.W. Hargrove, Oikos ARTICLE: *Predicting spatial distribution of foragers over large resource landscapes: A modeling analysis of the Ideal Free Distribution.* Oikos, 1997. **79**(2): p. 376-386.
394. Van Kooten, G.C., A. Grainger, E. Ley, G. Marland, and B. Solberg, Crit. Rev. Environ. Sci. Technol. ARTICLE: *Conceptual issues related to carbon sequestration: Uncertainty and time.* Crit. Rev. Environ. Sci. Technol., 1997. **27**: p. S65-S82.
395. Van Winkle, W., C.C. Coutant, H.I. Jager, J.S. Mattice, D.J. Orth, R.G. Otto, S.F. Railsback, and M.J. Sale, Fisheries ARTICLE: *Uncertainty and instream flow standards: perspective based on hydropower research and assessment.* Fisheries, 1997. **22**(7): p. 21-22.
396. Van Winkle, W., K.A. Rose, B.J. Shuter, B.I. Jager, and B.D. Holcomb, Can. J. Fish. Aquat. Sci. ARTICLE: *Effects of climatic temperature change on growth, survival, and reproduction of rainbow trout: predictions from a simulation model.* Can. J. Fish. Aquat. Sci., 1997. **54**(11): p. 2526-2542.
397. Vane, C.R., S. Datz, E.F. Deveney, P.F. Dittner, H.F. Krause, R. Schuch, H. Gao, and R. Hutton, Phys. Rev. A ARTICLE: *Measurements of positrons from pair production in Coulomb collisions of 33-TeV lead ions with fixed targets.* Phys. Rev. A, 1997. **56**(5): p. 3682-3686.
398. Vane, C.R., S. Datz, H.F. Krause, P.F. Dittner, E.F. Deveney, H. Knudsen, P. Grafstrom, R. Schuch, H. Gao, and R. Hutton, Phys. Scr. ARTICLE: *Atomic collisions with 33-TeV lead ions.* Phys. Scr., 1997. **T73**: p. 167-171.
399. Walla, J.A., G.A. Tuskan, J.E. Lundquist, and C.G. Wang, Plant Disease ARTICLE: *Expression of inoculum and family specific responses in the ponderosa pine western gall rust pathosystem.* Plant Disease, 1997. **81**(1): p. 57-62.
400. Wang, Y., G.M. Stocks, D.M.C. Nicholson, W.A. Shelton, Z. Szotek, and W.M. Temmerman, J. Phase Equilib. ARTICLE: *The local environmental effects on the magnetism of short-range clustered CuNi alloys.* J. Phase Equilib., 1997. **18**(6): p. 588-592.
401. Wang, Y., G.M. Stocks, D.M.C. Nicholson, W.A. Shelton, V.P. Antropov, and B.N. Harmon, J. Appl. Phys. ARTICLE: *Noncollinear magnetic structure in Ni<sub>0.35</sub>Fe<sub>0.65</sub>.* J. Appl. Phys., 1997. **81**(8): p. 3873-3875.
402. Wang, S.B., J.H. Cowan, K.A. Rose, and E.D. Houde, J. Fish Biol. ARTICLE: *Individual-based modelling of recruitment variability and biomass production of bay anchovy in mid-Chesapeake Bay.* J. Fish Biol., 1997. **51**: p. 101-120.
403. With, K.A. and A.W. King, Oikos ARTICLE: *The use and misuse of neutral landscape models in ecology.* Oikos, 1997. **79**(2): p. 219-229.
404. Wullschleger, S.D., R.J. Norby, J.C. Love, and C. Runck, Ann. Bot. ARTICLE: *Energetic costs of tissue construction in yellow-poplar and white oak trees exposed to long-term CO<sub>2</sub> enrichment.* Ann. Bot., 1997. **80**(3): p. 289-297.
405. Yuracko, K.L., S.W. Hadley, R.D. Perlack, R.G. Rivera, and T.R. Curlee, Resour. Conserv. Recycl. ARTICLE: *Fernald's dilemma: Recycle the radioactively contaminated scrap metal, or bury it?* Resour. Conserv. Recycl., 1997. **19**(3): p. 187-198.
406. Zhang, C.L., S. Liu, T.J. Phelps, D.R. Cole, J. Horita, S.M. Fortier, M. Elless, and J.W. Valley, Geochim. Cosmochim. Acta ARTICLE: *Physiochemical, mineralogical, and isotopic characterization of magnetite-rich iron oxides formed by thermophilic iron-reducing bacteria.*

Geochim. Cosmochim. Acta, 1997. **61**(21): p. 4621-4632.

407. Zhang, C.L., R.M. Lehman, S.M. Pfiffner, S.P. Scarborough, A.V. Palumbo, T.J. Phelps, J.J. Beauchamp, and F.S. Colwell, Appl. Biochem. Biotechnol. ARTICLE: *Spatial and temporal variations of microbial properties at different scales in shallow subsurface sediments*. Appl. Biochem. Biotechnol., 1997. **63-5**: p. 797-808.
408. Zhou, J.Z., A.V. Palumbo, and J.M. Tiedje, Appl. Environ. Microbiol. ARTICLE: *Sensitive detection of a novel class of toluene-degrading denitrifiers, Azoarcus tolulyticus, with small-subunit rRNA primers and probes*. Appl. Environ. Microbiol., 1997. **63**(6): p. 2384-2390.

#### 1997 Reports

409. Abrahamson, L.P. and E.H. White,REPORT: Bioenergy from Willow,ORNL/M-5899.1997,
410. Adams, S.M.,REPORT: Report of Foreign Travel by S. M. Adams, April 4-11, 1997,ORNL/FTR-6130.1997,
411. Adams, J.M.,REPORT: Report of Foreign Travel by J.M. Adams, May 16 - June 11, 1997,ORNL/FTR-6209.1997,
412. Andres, R.J., G. Marland, I. Fung, E. Matthews, and A.L. Brenkert,REPORT: Geographic Patterns of Carbon Dioxide Emissions from Fossil-Fuel Burning, Hydraulic Cement Production, and Gas Flaring on a One Degree by One Degree Grid Cell Basis: 1950 to 1990,ORNL/CDIAC-97.1997,
413. Bao, Y.S., R.D. Perlack, and M.J. Fale,REPORT: Alternative Methods to Determine Headwater Benefits,ORNL/TM-13496.1997,
414. Beahm, E.C., C.F. Weber, T.A. Dillow, S.A. Bush, S.Y. Lee, and R.D. Hunt,REPORT: Sludge Treatment Studies,ORNL/TM-13371.1997,
415. Beaty, T.W., V.M. Gronitz, and R.C. Daniels,REPORT: A Coastal Hazards Data Base for the U.S. West Coast,ORNL/CDIAC-81, NDP-043C.1997,
416. Brown, G.M., D.J. Presley, P.V. Bonnesen, L.M. Bates, B.A. Moyer, S.D. Alexandratros, V. Patel, R. Ober, B. Gu, L. Liang, and R.L. Siegrist,REPORT: Column Tests of Resins for Selective Sorption of Technetium from Groundwater: FY 1997 Summary Report,ORNL/M-5920.1997,
417. Burtis, M.D.,REPORT: Carbon Dioxide Information Analysis Center and World Data Center-A for Atmospheric Trace Gases,ORNL/CDIAC-34/R7.1997,
418. Cada, G.,REPORT: Report of Foreign Travel by G. Cada, August 9-18, 1997,ORNL/FTR-6280.1997,
419. Cada, G.F., C.C. Coutant, and R.R. Whitney,REPORT: Development of Biological Criteria for the Design of Advanced Hydropower Turbines,ORNL/M-5880.1997,
420. Chapman, D.W., T. Takahashi, S. Rubin, S.C. Sutherland, M.H. Koshlyakov, and A. Kozyr,REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the R/V AKADEMIK IOFFE Cruise in the South Pacific Ocean (WOCE Section S4P, February - April 1992),ORNL/CDIAC-100.1997,
421. Cooper, L.W.,REPORT: Report of Foreign Travel by L.W. Cooper, May 23 - June 11, 1997,ORNL/FTR-6204.1997,
422. Courville, G.E., T.O. Early, N.M. Labinov, S.D. Labinov, and J. VanCoevering,REPORT: Report of Foreign Travel by G. E. Courville, T. O. Early, N. M. Labinov, S. D. Labinov, and J. VanCoevering, February 7-22, 1997,ORNL/FTR-6096.1997,
423. Coutant, C.C.,REPORT: Review of the National Marine Fisheries Services 1996 Annual Report to the Oregon Department of Environmental Quality, December 2, 1996 (Draft),ORNL/M-5840.1997,
424. Cushman, R.M.,REPORT: Publications, Presentations, and Awards of the Carbon Dioxide Information Analysis Center and World Data Center-A for Atmospheric Trace Gases,ORNL/CDIAC-101.1997,
425. Cushman, J.H.,REPORT: Report of Foreign Travel by J.H. Cushman, September 19-26,

- 1997,ORNL/FTR-6352.1997,
426. Cushman, R.M., T.A. Boden, S.B. Jones, D.P. Kaiser, T.R. Nelson, and M.D. Burtis, Compiler,REPORT: Carbon Dioxide Information Analysis Center World Data Center-A for Atmospheric Trace Gases, Fiscal Year 1996 Annual Report,ORNL/CDIAC-98.1997,
427. Dale, V.H.,REPORT: Report of Foreign Travel by V. H. Dale, April 21-25, 1997,ORNL/FTR-6141.1997,
428. Doll, W.E., R.D. Miller, and J. Xia,REPORT: Comparison of Seismic Sources for Imaging Geologic Structures on the Oak Ridge Reservation, Tennessee,ORNL/TM-13382.1997,
429. Dorsch, J.,REPORT: Effective Porosity and Density of Carbonate Rocks (Maynardville Limestone and Cooper Ridge Dolomite) Within Bear Creek Valley on the Oak Ridge Reservation Based on Modern Petrophysical Techniques,ORNL/M-5902.1997,
430. Easterling, D.R., P. Jamason, D.P. Bowman, P.Y. Hughes, E.H. Mason, and L.J. Allison,REPORT: Daily Snow Depth Measurements from 195 Stations in the United States,ORNL/CDIAC-95.1997,
431. Field, J.M.,REPORT: Report of Foreign Travel by J. M. Field, January 11-18, 1997,ORNL/FTR-6072.1997,
432. Ford, C.J., J.E. Nyquist, S.T. Purucker, B.B. Burgoa, and R.F. Winterfield,REPORT: Characterization and Inventory of Contaminants in WAG 2 Floodplain Soils of White Oak Creek,ORNL/TM-13208.1997,
433. Graham, R.,REPORT: Report of Foreign Travel by R. Graham, November 10-16, 1997,ORNL/FTR-6422.1997,
434. Hall, R.B., R.D. Hanna, E.R. Hart, J.D. McMillin, and J. McNabb, H.S.,REPORT: Selection and Breeding of Pest-Resistant Clones of Populus for Biomass Energy Production in the North Central Region Annual Report for the Period 1 January 1996 - 31 December 1996,ORNL/M-5891.1997,
435. Hanson, P.J. and S.D. Wulschleger,REPORT: Report of Foreign Travel by P. J. Hanson and S. D. Wulschleger, May 11-17, 1997,ORNL/FTR-6164.1997,
436. Hildebrand, S.G.,REPORT: Environmental Science: Research, Assessment, and Technology to Understand and Meet the Challenges of the Future,ORNL/M-5911.1997,Oak Ridge:Oak Ridge National Laboratory
437. Hinckley, T.M., H.D. Bradshaw, Jr., G. Chastagner, and G. Newcombe,REPORT: Evaluation and Genetic Improvement of Black Cottonwood for Short-Rotation Coppice Culture Annual Progress Report for the period January 16, 1996 to January 15, 1997,ORNL/M-5890.1997,
438. Houlberg, L.M., C.T. Hawkins, R.E. Bock, S.J. Mayer, and M.S. Salk,REPORT: Environmental Regulatory Update Table, March/April 1997,ORNL/M-5819/R1.1997,
439. Isebrands, J.G. and D.E. Riemenschneider,REPORT: Evaluation of Genetic Selection Criteria for Populus Clones 1996 Annual Progress Report,ORNL/M-5892.1997,
440. Korte, N., L. Liang, B.M. Gu, M., J. Zutman, R. Schlosser, R. Siegrist, T. Houk, and Q. Fernando,REPORT: In Situ Treatment of Mixed Contaminants in Groundwater: Application of Zero-valence Iron and Palladized Iron for Treatment of Groundwater Contaminated with TCE and Tc99,ORNL/TM-13530.1997,
441. Kozyr, A.,REPORT: Surface Water and Atmospheric Underwater Turbine Data Obtained During the World Ocean Circulation Experiment, Indian Ocean Crusies,ORNL/CDIAC-103.1997,
442. Kozyr, A., C. Goyet, R.M. Key, K.F. Sullivan, and M. Tsuchiya,REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the R/V Thomas Washington Cruise Tunes-1 in the Equatorial Pacific Ocean (WOCE Section P17C),ORNL/CDIAC-99.1997,
443. Kszos, L.A.,REPORT: Report on the Biological Monitoring Program at Paducah Gaseous Diffusion Plant, January-December 1996,ORNL/TM-13377.1997,
444. Kszos, L.A., G.E. Anderson, S.M. Gregory, M.J. Peterson, T.L. Phipps, M.J. Ryon, E.M. Schilling, J.G. Smith, and G.R. Southworth,REPORT: Biological Monitoring and Abatement Program Plan for Oak Ridge National Laboratory,ORNL/TM-13432.1997,

445. Land, S.B., M. Stine, and D.L. Rockwood,REPORT: Populus Crop Development for the Southeastern United States Annual Progress Report (1/1/96-12/31/96),ORNL/M-5889.1997,
446. Lowe, K.S., P. McKay, and R.L. Siegrist,REPORT: Perspective on the Environmental Conditions and Opportunities in the Republic of Argentina,ORNL/M-6120.1997,
447. Marland, G.H.,REPORT: Report of Foreign Travel by G.H. Marland, November 1-9, 1997,ORNL/FTR-6405.1997,
448. McCarthy, J.F.,REPORT: Report of Foreign Travel by J. F. McCarthy, April 18-May 2, 1997,ORNL/FTR-6147.1997,
449. McCarthy, J.F. and K.B. Ravina,REPORT: Report of Foreign Travel by J.F. McCarthy and K.B. Ravina, June 6-18, 1997,ORNL/FTR-6217.1997,
450. Moore, J.P., L. Mann, J. Dobson, R. Durfee, C. Krause, and J. Pearce,REPORT: Quarterly Technical Progress Report of Radioisotope Power System Materials Production and Technology Program Tasks for January Through March 1997,ORNL/CF-97/18.1997,
451. Morrissey, C.M., G.R. Cunningham, and D.S. Marshall,REPORT: Active Sites Environmental Monitoring Program FY 1996 Annual Report,ORNL/M-5507.1997,
452. Mulholland, P.J., W.K. Roy, M.G. Ryon, E.M. Schilling, J.G. Smith, J.W. Webb, D.C. West, D.J. Awl, J.M. Mitchell, L.R. Pounds, B.A. Rosensteel, and M.J. Harvey,REPORT: Parcel ED-1 Mitigation Plan Implementation Annual Report: October 1997,ORNL/M-6371.1997,
453. Nativ, R., A. Halleran, and A. Hunley,REPORT: The Deep Hydrogeologic Flow System Underlying the Oak Ridge Reservation-Assessing the Potential for Active Groundwater Flow and Origin of the Brine,ORNL/M-6101.1997,
454. Norby, R.J.,REPORT: Report of Foreign Travel by R.J. Norby, August 28-September 6, 1997,ORNL/FTR-6296.1997,
455. Norby, R.J.,REPORT: Report of Foreign Travel by R.J. Norby, June 6-8, 1997,ORNL/FTR-6189.1997,
456. Ostry, M.E. and K.T. Ward,REPORT: Septoria Pathosystem Studies for Populus Project 1.03 1996 Annual Report,ORNL/M-5888.1997,
457. Quarles, H.D.,REPORT: Report of Foreign Travel by H.D. Quarles, May 17-26, 1997,ORNL/FTR-6191.1997,
458. Sample, B.E., M.S. Aplin, R.A. Efroymsen, G.W. Suter, II, and C.J.E. Welsh,REPORT: Methods and Tools for Estimation of the Exposure of Terrestrial Wildlife to Contaminants,ORNL/TM-13391.1997,
459. Sample, B.E. and D.S. Jones,REPORT: Assessment of Risks to Piscivorous Wildlife, Fish, and Benthic Invertebrates from Contaminants in the Five Islands Lake System, Nova Scotia, Canada,ORNL/M-6208.1997,
460. Shiyang, T., F. Congbin, Z. Zhaomei, Z. Qingyun, and D.P. Daiser,REPORT: Two Long-Term Instrumental Climatic Data Bases of the People's Republic of China, NDP-039/R1,ORNL/CDIAC-102.1997,
461. Shriner, D.S.,REPORT: Report of Foreign Travel by D.S. Shriner, September 18-26, 1997,ORNL/FTR-6349.1997,
462. Shriner, D.S.,REPORT: Report of Foreign Travel by D. S. Shriner, March 17-22, 1997,ORNL/FTR-6116.1997,
463. Sigmon, C.F., A.A.A. Smith, M.J. Rooks, S.A. Ashburn, and F.R. Reeves,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Shaw Air Force Base, South Carolina, Final Report,ORNL/M-5894.1997,
464. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, and M.J. Rooks,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Final Report,ORNL/M-5879.1997,
465. Sigmon, C.F., A.A. Aramowicz Smith, and F.R. Reeves,REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Nellis Air Force Base, Nevada, Final Report,ORNL/M-6098.1997,
466. Sigmon, C.F., A.A.A. Smith, S.A. Asburn, F.R. Reeves, and M.J. Rooks,REPORT:

- Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings, Ellsworth Air Force Base, South Dakota, ORNL/M-5851.1997,
467. Sigmon, C.F., F.R. Reeves, R.D. Coleman, W. Hancuff, and R.L. Jolley, REPORT: Report of Foreign Travel by C.F. Sigmon, F.R. Reeves, R.D. Coleman, W.R. Hancuff, and R.L. Jolley, April 29 - May 19, 1997, ORNL/FTR-6181.1997,
468. Sigmon, C.F., A.A. Aramowicz Smith, A. S.A., D.L. Hunsaker, and F.R. Reeves, REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings - Pope Air Force Base, North Carolina. Final Report, ORNL/M-5299.1997,
469. Sigmon, C.F., A.A.A. Smith, S.A. Ashburn, F.R. Reeves, and D. Hunsaker, REPORT: Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings for Barksdale Air Force Base, Louisiana, Final Report, ORNL/M-5473.1997,
470. Spalding, B.P., M.T. Naney, S.R. Cline, M.A. Bogle, and J.S. Tixier, REPORT: In situ vitrification demonstration at Pit 1, Oak Ridge National Laboratory. Volume 1: Results of treatability study, ORNL/ER--425/V1. Dec, 1997, Oak Ridge: Oak Ridge National Laboratory
471. Strauss, S., K. Han, R. James, A. Brunner, S. DiFazio, R. Meilan, and L. Sheppard, REPORT: Tree Genetic Engineering Research Cooperative Annual Report 1995-96, ORNL/M-5898.1997,
472. Strong, J.M. and M. Waltz, REPORT: Efficient On-site Degradation of High Concentration of Spent Deicing Fluids: A Laboratory Study, ORNL/M-6139.1997,
473. Strong-Gunderson, J.M., REPORT: Report of Foreign Travel by J.M. Strong-Gunderson, June 27-July 3, 1997, ORNL/FTR-6241.1997,
474. Suter, G.W., II, REPORT: A Framework for Assessing Ecological Risks of Petroleum-Derived Materials in Soil, ORNL/TM-13408.1997,
475. Suter, G.W., REPORT: Report of Foreign Travel by G. W. Suter, October 4-18, 1997, ORNL/FTR-6372.1997,
476. Thompson, B.K. and D.D. Huff, REPORT: Database Dictionary for the Results of Groundwater Tracer Tests Using Tritiated Water, Conducted at the Oak Ridge National Laboratory, ORNL/M-6078.1997,
477. Tolbet, V.R., REPORT: Report of Foreign Travel of V.R. Tolbert, June 10-14, 1997, ORNL/FTR-6229.1997,
478. Toran, L.E., C.M. Hopper, M.T. Naney, C.V. Parks, J.F. McCarthy, and B.L. Broadhead, REPORT: The Potential for Criticality Following Disposal of Uranium at Low-Level Waste Facilities, Volume 1: Uranium Blended with Soil, ORNL/TM-13323/V1.1997,
479. Tuskan, G.A., L.E. Gunter, T.J. Tschaplinski, and F.W. Larimer, REPORT: The Isolation of DNA Sequences Determining Gender in the Plant Family Salicaceae, ORNL/M-6364.1997,
480. Van Winkle, W., H.I. Jager, and B.D. Holcomb, REPORT: Modification of the EPRI CompMech trout model for larger rivers. Final report, EPRI-TR-109665. Dec, 1997, Oak Ridge: Oak Ridge National Laboratory
481. Van Winkle, W., REPORT: Report of Foreign Travel by W. Van Winkle, May 23 - June 14, 1997, ORNL/FTR-6197.1997,
482. West, O.R., C.K. Bayne, R.L. Siegrist, W.L. Holden, and D.W. Bottrell, REPORT: Stability of Purgeable VOCs in Water Samples During Pre-analytical Holding, Part 2. Analyses by an EPA Regional Laboratory, ORNL/TM-13240/V2.1997,
483. West, O.R., S.R. Cline, W.L. Holden, F.G. Gardner, B.M. Schlosser, J.E. Thate, and D.A.H. Pickering, T.C., REPORT: A Full Scale Demonstration of In Situ Chemical Oxidation Through Recirculation at the X-701B Site, Field Operations and TCE Degradation, ORNL/TM-13556.1997,
484. Whitney, R.R., L.D. Calvin, M.W. Erho, and C.C. Coutant, REPORT: Downstream Passage for Salmon at Hydroelectric Projects in the Columbia River Basin: Development, Installation, and Evaluation, ORNL/M-6148.1997,
485. Wright, L.L., REPORT: Report of Foreign Travel by L.L. Wright, June 10-15, 1997, ORNL/FTR-6211.1997,

## 1998 Book Sections

486. Adams, S.M., BOOK SECTION: *Ecological role of lipids in the health and success of fish populations*, in *Lipids in Freshwater Ecosystems*. 1998. p. 132-160.
487. Amthor, J.S. and D.D. Baldocchi, BOOK SECTION: *Terrestrial Higher-Plant Respiration and Net Primary Production*. 1998, Academic Press.
488. Bronzini, M.S., T.R. Curlee, P.N. Leiby, F. Southworth, and M.S. Summers, BOOK SECTION: *Ohio river navigation investment model - Requirements and model design*, in *Ports/Waterways Marine Transportation*. 1998. p. 17-26.
489. Burlage, R.S., BOOK SECTION: *Molecular Techniques*. 1998, Oxford University Press. p. 289-336.
490. Cooper, L.W., BOOK SECTION: *Isotopic Fractionation in Snow Cover*. 1998, Elsevier: Amsterdam. p. 119-136.
491. Dale, V.H., BOOK SECTION: *Managing forests as ecosystems: A success story or a challenge ahead?*, in *Successes, Limitations, and Frontiers in Ecosystem Science*. 1998. p. 50-68.
492. Dale, V.H., J. Algado-Acevedo, and J. MacMahon, BOOK SECTION: *Effects of Modern Volcanic Impacts on Vegetation*. 1998, Cambridge University Press.
493. Elless, M.P. and S.Y. Lee, BOOK SECTION: *Radionuclide-Contaminated Soils: A Mineralogic Perspective for Their Remediation*. 1998, Agronomy Society of America.
494. Fendorf, S., P.M. Jardine, and D.L. Taylor, BOOK SECTION: *Auto-Inhibition of Oxide Mineral Reductive Capacity Toward Co(II)EDTA*. 1998, Amer. Chem. Soc.
495. Jardine, P.M., R. O'Brien, G.V. Wilson, and J.-P. Gwo, BOOK SECTION: *Experimental Techniques for Confirming and Quantifying Physical Nonequilibrium Processes in Soils*. 1998, Ann Arbor Press: Chelsea, MI. p. 243-271.
496. Joslin, J.D., M.H. Wolfe, and C.T. Garten, JR., BOOK SECTION: *Effects of Soil Warming on Organic Matter Decomposition and Soil-Nitrogen Cycling in a High Elevation Red Spruce Stand*. 1998, Springer Verlag: London. p. 557-569.
497. Lindberg, S.E., BOOK SECTION: *A Listening and Liberating Science: The Ultimate Problem of Education*. 1998, Lund University Press. p. 348-51.
498. Luxmoore, R.J., S.M. Pearson, M.L. Tharp, and S.B. McLaughlin, BOOK SECTION: *Scaling Up Physiological Responses of Loblolly Pine to Ambient Ozone Exposure Under Natural Weather Variation*. 1998, Springer-Verlag: New York. p. 407-428.
499. Parkhurst, B., S. Christensen, R. Goldstein, B. Neely, and K. Solomon, BOOK SECTION: *Model Selection Considerations in Fate-and-Effects Analysis*. 1998, SETAC Press. p. 15-19.
500. Post, W.M., BOOK SECTION: *Carbon Cycle*. 1998, Oxford University Press.
501. Sample, B.E., K.A. Rose, and G.W. Suter, BOOK SECTION: *Estimation of Population Effects Based on Individual-Level Exposures: Influence of Life History Strategies*. 1998, SETAC Press.
502. Sample, B.E., K.A. Rose, and G.W. Suter, II, BOOK SECTION: *Estimation of Population-Level Effects on Wildlife Based on Individual-Level Exposures: Influence of Life History Strategies*. 1998, SETAC Press.
503. Schlamadinger, B. and G. Marland, BOOK SECTION: *Substitution of Wood from Plantation Forestry for Wood from Deforestation: Modeling the Effects on Carbon Storage*. 1998, Springer Verlag. p. 205-218.
504. Shriner, D.S. and R.B. Street, BOOK SECTION: *Chapter 8. North America*. 1998, Cambridge University Press. p. 253-330.
505. Suter, G.W., II, BOOK SECTION: *Ecotoxicological Effects Extrapolation Models*. 1998, Ann Arbor Press. p. 167-185.
506. Webb, E., A. Borison, D. Cacula, S. Christensen, M. Evans, R. Hunter, H. Jones, and P. Kaplan, BOOK SECTION: *Design of an Ecological Risk Assessment Decision-Support System*. 1998, SETAC Press: Pensacola. p. 45-61.
507. White, D.C. and D.B. Ringelberg, BOOK SECTION: *Singature Lipid Biomarker Analysis*. 1998,

Oxford University Press: New York. p. 255-72.

508. Wilson, G.V., J.P. Gwo, P.M. Jardine, and R.J. Luxmoore, BOOK SECTION: *Hydraulic and Physical Nonequilibrium Effects on Multiregion Flow and Transport*. 1998, Ann Arbor Press: Chelsea, MI. p. 37-61.

#### 1998 Conference Papers

509. Mulholland, P.J., J.L. Tank, D.M. Sanzone, J.R. Webster, W.M. Wolheim, B.J. Peterson, and J.L. Meyer. CONFERENCE PAPER: *Ammonium and nitrate uptake lengths in a small forested stream determined by super(15)N tracer and short-term nutrient enrichment experiments*. in *27th Congress, International Association of Theoretical and Applied Limnology*. 1998. Dublin: Schweizerbart'sche Verlagsbuchhandlung.

#### 1998 Journal Articles

510. Adams, J.M. and H. Faure, Glob. Planet. Change ARTICLE: *A new estimate of changing carbon storage on land since the last glacial maximum, based on global land ecosystem reconstruction*. Glob. Planet. Change, 1998. **17**: p. 3-24.
511. Alstrom-Rapaport, C., M. Lascoux, Y.C. Wang, G. Roberts, and G.A. Tuskan, Journal of Heredity ARTICLE: *Identification of a RAPD marker linked to sex determination in the basket willow (*Salix viminalis* L.)*. Journal of Heredity, 1998. **89**(1): p. 44-49.
512. Amthor, J.S., Field Crop. Res. ARTICLE: *Perspective on the relative insignificance of increasing atmospheric CO<sub>2</sub> concentration to crop yield*. Field Crop. Res., 1998. **58**(2): p. 109-127.
513. Amthor, J.S., Tree Physiology ARTICLE: *A note on the report by M.B. Lavigne and M.G. Ryan relating stem maintenance respiration rate to stem growth rate*. Tree Physiology, 1998. **18**(1): p. 69-69.
514. Beiden, S.V., W.M. Temmerman, Z. Szotek, G.A. Gehring, G.M. Stocks, Y. Wang, D.M.C. Nicholson, W.A. Shelton, and H. Ebert, Phys. Rev. B ARTICLE: *Real-space approach to the calculation of magnetocrystalline anisotropy in metals*. Phys. Rev. B, 1998. **57**(22): p. 14247-14253.
515. Brooks, S.C., J.S. Herman, G.M. Hornberger, and A.L. Mills, J. Contam. Hydrol. ARTICLE: *Biodegradation of cobalt-citrate complexes: Implications for cobalt mobility in groundwater*. J. Contam. Hydrol., 1998. **32**(1-2): p. 99-115.
516. Brooks, S.C. and J.S. Herman, Appl. Geochem. ARTICLE: *Rate and extent of cobalt sorption to representative aquifer minerals in the presence of a moderately strong organic ligand*. Appl. Geochem., 1998. **13**(1): p. 77-88.
517. Brooks, S.C., D.L. Taylor, and P.M. Jardine, Soil Sci. Soc. Am. J. ARTICLE: *Thermodynamics of bromide exchange on ferrihydrite: Implications for bromide transport*. Soil Sci. Soc. Am. J., 1998. **62**(5): p. 1275-1279.
518. Cada, G.F., Int. Rev. Hydrobiol. ARTICLE: *Efforts to reduce the impacts of hydroelectric power production on reservoir fisheries in the United States*. Int. Rev. Hydrobiol., 1998. **83**: p. 43-50.
519. Carpi, A. and S.E. Lindberg, Atmos. Environ. ARTICLE: *Application of a Teflon (TM) dynamic flux chamber for quantifying soil mercury flux: Tests and results over background soil*. Atmos. Environ., 1998. **32**(5): p. 873-882.
520. Clark, M.E., K.A. Rose, J.A. Chandler, T.J. Richter, D.J. Orth, and W. Van Winkle, Environ. Biol. Fishes ARTICLE: *Simulating smallmouth bass reproductive success in reservoirs subject to water level fluctuations*. Environ. Biol. Fishes, 1998. **51**(2): p. 161-174.
521. Cooper, L.W., J.M. Grebmeier, I.L. Larsen, S.S. Dolvin, and A.J. Reed, Chem. Ecol. ARTICLE: *Inventories and distribution of radiocaesium in Arctic marine sediments: influence of biological and physical processes*. Chem. Ecol., 1998: p. 27-46.
522. Cooper, L.W., T.M. Beasley, X.L. Zhao, C. Soto, K.L. Vinogradova, and K.H. Dunton, Mar.



- Biol. ARTICLE: *Iodine-129 and plutonium isotopes in Arctic kelp as historical indicators of transport of nuclear fuel-reprocessing wastes from mid-to-high latitudes in the Atlantic Ocean*. Mar. Biol., 1998. **131**(3): p. 391-399.
523. Cooper, L.W., I.L. Larsen, T.M. Beasley, S.S. Dolvin, J.M. Grebmeier, J.M. Kelley, M. Scott, and A. Johnson-Pyrtle, J. Environ. Radioact. ARTICLE: *The distribution of radiocesium and plutonium in sea ice-entrained Arctic sediments in relation to potential sources and sinks*. J. Environ. Radioact., 1998. **39**(3): p. 279-303.
524. Costanza, R., R. d'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R.V. O'Neill, J. Paruelo, R.G. Raskin, P. Sutton, and M. van den Belt, Ecol. Econ. ARTICLE: *The value of the world's ecosystem services and natural capital (Reprinted from Nature, vol 387, pg 253, 1997)*. Ecol. Econ., 1998. **25**(1): p. 3-15.
525. Costanza, R., R. d'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R.V. O'Neill, J. Paruelo, R.G. Raskin, P. Sutton, and M. van den Belt, Ecol. Econ. ARTICLE: *The value of ecosystem services: putting the issues in perspective*. Ecol. Econ., 1998. **25**(1): p. 67-72.
526. Coutant, C.C., J. Aquat. Anim. Health ARTICLE: *What is "normative" for fish pathogens? A perspective on the controversy over interactions between wild and cultured fish*. J. Aquat. Anim. Health, 1998. **10**(2): p. 101-106.
527. Curlee, T.R. and S. Das, J. Solid Waste Technol. Manage. ARTICLE: *The viability of recycling plastics by tertiary processes*. J. Solid Waste Technol. Manage., 1998. **25**(3-4): p. 148-160.
528. Dale, V.H. and P.D. Parr, Issues Sci Technol ARTICLE: *Preserving DOE's research parks*. Issues Sci Technol, 1998. **14**(2): p. 73-77.
529. Dale, V.H., A.W. King, L.K. Mann, R.A. Washington-Allen, and R.A. McCord, Environ. Manage. ARTICLE: *Assessing land-use impacts on natural resources*. Environ. Manage., 1998. **22**(2): p. 203-211.
530. Dale, V.H., A.E. Lugo, J.A. MacMahon, and S.T.A. Pickett, Ecosystems ARTICLE: *Ecosystem management in the context of large, infrequent disturbances*. Ecosystems, 1998. **1**(6): p. 546-557.
531. Doll, W.E., R.D. Miller, and J.H. Xia, Geophysics ARTICLE: *A noninvasive shallow seismic source comparison on the Oak Ridge Reservation, Tennessee*. Geophysics, 1998. **63**(4): p. 1318-1331.
532. Edwards, N.T. and R.J. Norby, Plant and Soil ARTICLE: *Below-ground respiratory responses of sugar maple and red maple saplings to atmospheric CO<sub>2</sub> enrichment and elevated air temperature*. Plant and Soil, 1998. **206**(1): p. 85-97.
533. Elless, M.P. and S.Y. Lee, Water Air Soil Pollut. ARTICLE: *Uranium solubility of carbonate-rich uranium-contaminated soils*. Water Air Soil Pollut., 1998. **107**(1-4): p. 147-162.
534. Everaarts, J.M., P.J. Den Besten, M.T.J. Hillebrand, R.S. Halbrook, and L.R. Shugart, Ecotoxicology ARTICLE: *DNA strand breaks, cytochrome P-450-dependent monooxygenase system activity and levels of chlorinated biphenyl congeners in the pyloric caeca of the seastar (Asterias rubens) from the North Sea*. Ecotoxicology, 1998. **7**(2): p. 69-79.
535. Faulkner, J.S., N.Y. Moghadam, Y. Wang, and G.M. Stocks, J. Phase Equilib. ARTICLE: *Comparison of the electronic states of alloys from the coherent potential approximation and an order-N calculation*. J. Phase Equilib., 1998. **19**(6): p. 538-542.
536. Faulkner, J.S., Y. Wang, and G.M. Stocks, Phys. Rev. Lett. ARTICLE: *Core level chemical shifts in metallic alloys*. Phys. Rev. Lett., 1998. **81**(9): p. 1905-1908.
537. Faulkner, J.S., N.Y. Moghadam, Y. Wang, and G.M. Stocks, Phys. Rev. B ARTICLE: *Evaluation of isomorphous models of alloys*. Phys. Rev. B, 1998. **57**(13): p. 7653-7660.
538. Faure, H., J.M. Adams, and L. Faure-Denard, Glob. Planet. Change ARTICLE: *Quaternary carbon cycle changes: Introduction to future studies*. Glob. Planet. Change, 1998. **17**: p. 1-2.
539. Francis, C.W., M.E. Timpson, S.Y. Lee, M.P. Elless, and J.H. Wilson, J. Radioanal. Nucl. Chem. ARTICLE: *The use of carbonate lixiviants to remove uranium from uranium-contaminated soils*. J. Radioanal. Nucl. Chem., 1998. **228**(1-2): p. 15-20.

540. Gao, H. and R.G. Zepp, Environ. Sci. Technol. ARTICLE: *Factors influencing photoreactions of dissolved organic matter in a coastal river of the southeastern United States*. Environ. Sci. Technol., 1998. **32**(19): p. 2940-2946.
541. Garten, C.T., A.B. Schwab, and T.L. Shirshac, For. Ecol. Manage. ARTICLE: *Foliar retention of N-15 tracers: implications for net canopy exchange in low- and high-elevation forest ecosystems*. For. Ecol. Manage., 1998. **103**(2-3): p. 211-216.
542. Gebre, G.M., T.J. Tschaplinski, G.A. Tuskan, and D.E. Todd, Tree Physiol. ARTICLE: *Clonal and seasonal differences in leaf osmotic potential and organic solutes of five hybrid poplar clones grown under field conditions*. Tree Physiol., 1998. **18**(10): p. 645-652.
543. Gebre, G.M., T.J. Tschaplinski, and T.L. Shirshac, Tree Physiol. ARTICLE: *Water relations of several hardwood species in response to throughfall manipulation in an upland oak forest during a wet year*. Tree Physiol., 1998. **18**(5): p. 299-305.
544. Greene, D.L., D.W. Jones, and P.N. Leiby, Energy Policy ARTICLE: *The outlook for US oil dependence*. Energy Policy, 1998. **26**(1): p. 55-69.
545. Gu, B., L. Liang, M.J. Dickey, X. Yin, and S. Dai, Environ. Sci. Technol. ARTICLE: *Reductive precipitation of uranium (VI) by zero-valent iron*. Environ. Sci. Technol., 1998. **32**(21): p. 3366-3373.
546. Gwo, J.P., R. O'Brien, and P.M. Jardine, J. Hydrol. ARTICLE: *Mass transfer in structured porous media: embedding mesoscale structure and microscale hydrodynamics in a two-region model*. J. Hydrol., 1998. **208**(3-4): p. 204-222.
547. Heilman, P. and R.J. Norby, Biomass Bioenerg. ARTICLE: *Nutrient cycling and fertility management in temperate short rotation forest systems*. Biomass Bioenerg., 1998. **14**(4): p. 361-370.
548. Heitzer, A., B. Applegate, S. Kehrmeyer, H. Pinkart, O.F. Webb, T.J. Phelps, D.C. White, and G.S. Saylor, J. Microbiol. Methods ARTICLE: *Physiological considerations of environmental applications of lux reporter fusions*. J. Microbiol. Methods, 1998. **33**(1): p. 45-57.
549. Johnson, D.W., P.J. Hanson, D.E. Todd, R.B. Susfalk, and C.F. Trettin, Water Air Soil Pollut. ARTICLE: *Precipitation change and soil leaching: Field results and simulations from Walker Branch Watershed, Tennessee*. Water Air Soil Pollut., 1998. **105**(1-2): p. 251-262.
550. Jones, J.B. and P.J. Mulholland, Limnol. Oceanogr. ARTICLE: *Methane input and evasion in a hardwood forest stream: Effects of subsurface flow from shallow and deep pathways*. Limnol. Oceanogr., 1998. **43**(6): p. 1243-1250.
551. Jones, J.B. and P.J. Mulholland, Ecosystems ARTICLE: *Carbon dioxide variation in a hardwood forest stream: An integrative measure of whole catchment soil respiration*. Ecosystems, 1998. **1**(2): p. 183-196.
552. Jones, J.B. and P.J. Mulholland, Biogeochemistry ARTICLE: *Influence of drainage basin topography and elevation on carbon dioxide and methane supersaturation of stream water*. Biogeochemistry, 1998. **40**(1): p. 57-72.
553. Kaiser, D.P., Geophys. Res. Lett. ARTICLE: *Analysis of total cloud amount over China, 1951-1994*. Geophys. Res. Lett., 1998. **25**(19): p. 3599-3602.
554. Lindberg, S.E., P.J. Hanson, T.P. Meyers, and K.H. Kim, Atmospheric Environment ARTICLE: *Air/surface exchange of mercury vapor over forests - The need for a reassessment of continental biogenic emissions*. Atmospheric Environment, 1998. **32**(5): p. 895-908.
555. Lindberg, S.E., Atmos. Environ. ARTICLE: *Introduction: The Fourth International Conference on Mercury as a Global Pollutant*. Atmos. Environ., 1998. **32**(5): p. 807-808.
556. Lindberg, S.E. and W.J. Stratton, Environ. Sci. Technol. ARTICLE: *Atmospheric mercury speciation: Concentrations and behavior of reactive gaseous mercury in ambient air*. Environ. Sci. Technol., 1998. **32**(1): p. 49-57.
557. Lioubimtseva, E., B. Simon, H. Faure, L. Faure-Denard, and J.M. Adams, Glob. Planet. Change ARTICLE: *Impacts of climatic change on carbon storage in the Sahara-Gobi desert belt since the Last Glacial Maximum*. Glob. Planet. Change, 1998. **17**: p. 95-105.
558. Luxmoore, R.J., P.J. Hanson, J.J. Beauchamp, and J.D. Joslin, Tree Physiol. ARTICLE:

- Passive nighttime warming facility for forest ecosystem research.* Tree Physiol., 1998. **18**(8-9): p. 615-623.
559. Lybarger, J.A., R. Lee, D.P. Vogt, R.M. Perhac, R.F. Spengler, and D.R. Brown, Environ. Res. ARTICLE: *Medical costs and lost productivity from health conditions at volatile organic compound-contaminated superfund sites.* Environ. Res., 1998. **79**(1): p. 9-19.
560. Marzolf, E.R., P.J. Mulholland, and A.D. Steinman, Can. J. Fish. Aquat. Sci. ARTICLE: *Reply: Improvements to the diurnal upstream-downstream dissolved oxygen change technique for determining whole-stream metabolism in small streams.* Can. J. Fish. Aquat. Sci., 1998. **55**(7): p. 1786-1787.
561. McCarthy, J.F., W.E. Sanford, and P.L. Stafford, Environ. Sci. Technol. ARTICLE: *Lanthanide field tracers demonstrate enhanced transport of transuranic radionuclides by natural organic matter.* Environ. Sci. Technol., 1998. **32**(24): p. 3901-3906.
562. McCarthy, J.F. and L. Shevenell, J. Hydrol. ARTICLE: *Processes controlling colloid composition in a fractured and karstic aquifer in eastern Tennessee, USA.* J. Hydrol., 1998. **206**(3-4): p. 191-218.
563. McCarthy, J.F., K.R. Czerwinski, W.E. Sanford, P.M. Jardine, and J.D. Marsh, J. Contam. Hydrol. ARTICLE: *Mobilization of transuranic radionuclides from disposal trenches by natural organic matter.* J. Contam. Hydrol., 1998. **30**(1-2): p. 49-77.
564. McCold, L.N. and J.W. Saulsbury, Environm. Impact.Assess. ARTICLE: *Defining the no-action alternative for National Environmental Policy Act analyses of continuing actions.* Environm. Impact.Assess., 1998. **18**(1): p. 15-37.
565. McLaughlin, S.B. and M.E. Walsh, Biomass Bioenerg. ARTICLE: *Evaluating environmental consequences of producing herbaceous crops for bioenergy.* Biomass Bioenerg., 1998. **14**(4): p. 317-324.
566. Moline, G.R., C.T. Rightmire, R.H. Kettle, and D.D. Huff, Ground Water ARTICLE: *"Evidence for ground water circulation in the brine-filled aquitard, Oak Ridge, Tennessee" by Ronit Nativ, Amy Halleran, and Arnold Hunley, July-August 1997, v. 35, no. 4 : 647-659. Discussion.* Ground Water, 1998. **36**(5): p. 711-712.
567. Moline, G.R., M.E. Schreiber, and J.M. Bahr, J. Environ. Eng.-ASCE ARTICLE: *Representative ground water monitoring in fractured porous systems.* J. Environ. Eng.-ASCE, 1998. **124**(6): p. 530-538.
568. Nadig, S.G., K.L. Lee, and S.M. Adams, Aquat. Toxicol. ARTICLE: *Evaluating alterations of genetic diversity in sunfish populations exposed to contaminants using RAPD assay.* Aquat. Toxicol., 1998. **43**(2-3): p. 163-178.
569. Napolitano, G.E., J.E. Richmond, and A.J. Stewart, J. Soil Contam. ARTICLE: *Characterization of petroleum-contaminated soils by thin-layer chromatography with flame ionization detection.* J. Soil Contam., 1998. **7**(6): p. 709-724.
570. Nicholson, D.M.C., G.M. Stocks, W.A. Shelton, Y. Wang, and J.C. Swihart, Metall. Mater. Trans. A-Phys. Metall. Mater. Sci. ARTICLE: *Ab initio studies of the electronic structure and energetics of bulk amorphous metals.* Metall. Mater. Trans. A-Phys. Metall. Mater. Sci., 1998. **29**(7): p. 1845-1851.
571. Norby, R.J. and M.F. Cotrufo, Nature ARTICLE: *Global change - A question of litter quality.* Nature, 1998. **396**(6706): p. 17-18.
572. Norby, R.J., New Phytol. ARTICLE: *Nitrogen deposition: a component of global change analyses.* New Phytol., 1998. **139**(1): p. 189-200.
573. O'Neill, R.V., Ecol. Econ. ARTICLE: *Evolutionary dynamics and sustainable development: Modelling the spatial dynamics of third world economic systems.* Ecol. Econ., 1998. **27**(2): p. 219-220.
574. Onstott, T.C., T.J. Phelps, F.S. Colwell, D. Ringelberg, D.C. White, D.R. Boone, J.P. McKinley, T.O. Stevens, P.E. Long, D.L. Balkwill, W.T. Griffin, and T. Kieft, Geomicrobiol. J. ARTICLE: *Observations pertaining to the origin and ecology of microorganisms recovered from the deep subsurface of Taylorsville Basin, Virginia.* Geomicrobiol. J., 1998. **15**(4): p. 353-385.

575. Osborne, T.H., R.J. Groebner, L.L. Lao, A.W. Leonard, R. Maingi, R.L. Miller, G.D. Porter, D.M. Thomas, and R.E. Waltz, Plasma Phys. Control. Fusion ARTICLE: *H-mode pedestal characteristics, ELMs, and energy confinement in ITER shape discharges on DIII-D*. Plasma Phys. Control. Fusion, 1998. **40**(5): p. 845-850.
576. Rose, K.A. and E.P. Smith, Ecol. Model. ARTICLE: *Statistical assessment of model goodness-of-fit using permutation tests*. Ecol. Model., 1998. **106**(2-3): p. 129-139.
577. Stewart, A.J. and B.K. Konetsky, Environ. Toxicol. Chem. ARTICLE: *Longevity and reproduction of Ceriodaphnia dubia in receiving waters*. Environ. Toxicol. Chem., 1998. **17**(6): p. 1165-1171.
578. Stocks, G.M., B. Ujfalussy, X.D. Wang, D.M.C. Nicholson, W.A. Shelton, Y. Wang, A. Canning, and B.L. Gyorffy, Philos. Mag. B-Phys. Condens. Matter Stat. Mech. Electron. Opt. Magn. Prop. ARTICLE: *Towards a constrained local moment model for first principles spin dynamics*. Philos. Mag. B-Phys. Condens. Matter Stat. Mech. Electron. Opt. Magn. Prop., 1998. **78**(5-6): p. 665-673.
579. Suter, G.W., Environ. Sci. Technol. ARTICLE: *In defense of ecorisk assessment*. Environ. Sci. Technol., 1998. **32**(5): p. 116A-117A.
580. Szecsody, J.E., J.M. Zachara, A. Chilakapati, P.M. Jardine, and A.S. Ferreny, J. Hydrol. ARTICLE: *Importance of flow and particle-scale heterogeneity on Co(II/III)EDTA reactive transport*. J. Hydrol., 1998. **209**(1-4): p. 112-136.
581. Tolbert, V.R. and L.L. Wright, Biomass Bioenerg. ARTICLE: *Environmental enhancement of US biomass crop technologies: Research results to date*. Biomass Bioenerg., 1998. **15**(1): p. 93-100.
582. Tschaplinski, T.J., G.A. Tuskan, G.M. Gebre, and D.E. Todd, Tree Physiol. ARTICLE: *Drought resistance of two hybrid Populus clones grown in a large-scale plantation*. Tree Physiol., 1998. **18**(10): p. 653-658.
583. Tschaplinski, T.J., G.M. Gebre, and T.L. Shirshac, Tree Physiol. ARTICLE: *Osmotic potential of several hardwood species as affected by manipulation of throughfall precipitation in an upland oak forest during a dry year*. Tree Physiol., 1998. **18**(5): p. 291-298.
584. Turner, M.G. and V.H. Dale, Ecosystems ARTICLE: *Comparing large, infrequent disturbances: What have we learned?* Ecosystems, 1998. **1**(6): p. 493-496.
585. Tuskan, G.A., Biomass Bioenerg. ARTICLE: *Short-rotation woody crop supply systems in the United States: What do we know and what do we need to know?* Biomass Bioenerg., 1998. **14**(4): p. 307-315.
586. Van Winkle, W., H.I. Jager, S.F. Railsback, B.D. Holcomb, T.K. Studley, and J.E. Baldrige, Ecol. Model. ARTICLE: *Individual-based model of sympatric populations of brown and rainbow trout for instream flow assessment: model description and calibration*. Ecol. Model., 1998. **110**(2): p. 175-207.
587. Walsh, M.E., Biomass Bioenerg. ARTICLE: *US bioenergy crop economic analyses: Status and needs*. Biomass Bioenerg., 1998. **14**(4): p. 341-350.
588. Wang, Y., G.M. Stocks, D.M.C. Nicholson, and W.A. Shelton, J. Phase Equilib. ARTICLE: *Noncollinear magnetism of Fe-rich FeNi alloys*. J. Phase Equilib., 1998. **19**(6): p. 513-516.
589. Wang, Y., G.M. Stocks, D.M.C. Nicholson, and W.A. Shelton, Comput. Math. Appl. ARTICLE: *The first principles O N LSMS method and its applications to magnetic structure of alloys*. Comput. Math. Appl., 1998. **35**(7): p. 85-92.
590. Washington-Allen, R.A., R.D. Ramsey, B.E. Norton, and N.E. West, International Journal of Remote Sensing ARTICLE: *Change detection of the effect of severe drought on subsistence agropastoral communities on the Bolivian Altiplano*. International Journal of Remote Sensing, 1998. **19**(7): p. 1319-1333.
591. White, D.C., T.J. Phelps, and T.C. Onstott, Curr. Opin. Microbiol. ARTICLE: *What's up down there?* Curr. Opin. Microbiol., 1998. **1**(3): p. 286-290.
592. Williams, R.S., D.E. Lincoln, and R.J. Norby, Glob. Change Biol. ARTICLE: *Leaf age effects of elevated CO<sub>2</sub>-grown white oak leaves on spring-feeding lepidopterans*. Glob. Change Biol.,

1998. **4**(3): p. 235-246.
593. Wullschleger, S.D., P.J. Hanson, and T.J. Tschaplinski, *Tree Physiol.* ARTICLE: *Whole-plant water flux in understory red maple exposed to altered precipitation regimes.* *Tree Physiol.*, 1998. **18**(2): p. 71-79.
594. Wullschleger, S.D., F.C. Meinzer, and R.A. Vertessy, *Tree Physiol.* ARTICLE: *A review of whole-plant water use studies in trees.* *Tree Physiol.*, 1998. **18**(8-9): p. 499-512.
595. Zepp, R.G., M.M. Gumz, W.L. Miller, and H. Gao, *J. Phys. Chem. A* ARTICLE: *Photoreaction of valerophenone in aqueous solution.* *J. Phys. Chem. A*, 1998. **102**(28): p. 5716-5723.
596. Zhang, C.L., H. Vali, C.S. Romanek, T.J. Phelps, and S.V. Liu, *Am. Miner.* ARTICLE: *Formation of single-domain magnetite by a thermophilic bacterium.* *Am. Miner.*, 1998. **83**(11-12): p. 1409-1418.
597. Zhang, C.L., A.V. Palumbo, T.J. Phelps, J.J. Beauchamp, F.J. Brockman, C.J. Murray, B.S. Parsons, and D.J.P. Swift, *Geomicrobiol. J.* ARTICLE: *Grain size and depth constraints on microbial variability in coastal plain subsurface sediments.* *Geomicrobiol. J.*, 1998. **15**(3): p. 171-185.

### 1998 Reports

598. Adams, S.M.,REPORT: Report of Foreign Travel by S. M. Adams, April 13-21, 1998,ORNL/FTR-6536.1998,
599. Amthor, J.S.,REPORT: Searching for a Relationship Between Forest Water Use and Increasing Atmospheric CO(Sub 2) Concentration by Using Long-Term Hydrologic Data from the Hubbard Brook Experimental Forest,ORNL/TM-13708.1998,Oak Ridge:Oak Ridge National Laboratory
600. Ashwood, T.L., M.S. Greeley, L.A. Kszos, T.L. Phipps, L.A. Kszos, C.D. Rash, and G.R. Southworth,REPORT: Postremediation Monitoring Program Baseline Assessment Report, Lower East Fork Poplar Creek, Oak Ridge Y-12 Plant, Oak Ridge, Tennessee,ORNL/M-6541.1998,Oak Ridge:Oak Ridge National Laboratory
601. Boden, T.A.,REPORT: Report of Foreign Travel for T.A. Boden, September 20-27, 1998,ORNL/FTR-6727.1998,
602. Boden, T.A., L.A. Hook, and M.-D. Cheng,REPORT: NARSTO Data Management Handbook,ORNL/CDIAC-112.1998,
603. Burtis, M.D.,REPORT: Carbon Dioxide Information Analysis Center and World Data Center-A for Atmospheric Trace Gases,ORNL/CDIAC-34/R8.1998,
604. Cain, L.C., J. Ferrada, B.A. Tomkins, and J.M. Loar,REPORT: Report of Foreign Travel by L. C. Cain, J. Ferrada, B. A. Tomkins and J. M. Loar, April 14-17, 1998,ORNL/FTR-6537.1998,
605. Cooper, L.W.,REPORT: Report of Foreign Travel for L.W. Cooper, December 11-January 12, 1998,ORNL/FTR-6465.1998,
606. Courville, G.E., T.O. Early, C.E. Easterly, and G.A. Tuskan,REPORT: Report of Foreign Travel by G. E. Courville, T. O. Early, C. E. Easterly and G. A. Tuskan, February 20-28,1998,ORNL/FTR-6510.1998,
607. Coutant, C.C.,REPORT: Turbulent Attraction Flows for Juvenile Salmonid Passage at Dams,ORNL/TM-13608.1998,
608. Cushman, R.M., T.A. Boden, S.B. Jones, D.P. Kaiser, and T.R. Nelson,REPORT: Carbon Dioxide Analysis Center and World Data Center - A for Atmospheric Trace Gases,ORNL/CDIAC-106.1998,
609. Dale, V.H., T.L. Ashwood, A.W. King, L.K. Mann, L.G. Pollack, T.T. Wilder, T.A. Beaty, R.N. Kickert, and M.A. Smith,REPORT: Spatially Explicit Ecological Models for Land-Use Decisions: Examples for Military Land Management,ORNL/M-6686.1998,
610. Efroymsen, R.A., B.E. Sample, R.J. Luxmoore, M.L. Tharp, and L.W. Barnhouse,REPORT: Evaluation of the Risks Associated with Land Application of Municipal Sewage Sludge,ORNL/TM-13703.1998,

611. Fowler, D.E., J.N. Herndon, J.P. Hill, W.H. Miller, J.G. Mullins, W.W. Pope, A.W. Saulsbury, C.A. Schrof, F.J. Smith, L.L. Triplett, and H.R. Yook,REPORT: ORNL Necessary and Sufficient Standards for Environmental, Safety, and Health - Final Report for the Identification Team for Other Industrial, Radiological, and Non-Radiological Hazard Facilities,ORNL/TM-13638.1998,
612. Graham, R.L.,REPORT: Report of Foreign Travel by R. L. Graham, March 17-20, 1997,ORNL/FTR-6509.1998,
613. Greene, D.L.,REPORT: Report of Foreign Travel for D.L. Greene, June 7-12, 1998,ORNL/FTR-6599.1998,
614. Griest, W.H., A.A. Vass, and A.J. Stewart,REPORT: Chemical & Toxicological Characterization of Slurry Reactor Biotreatment of Explosives-Contaminated Soils,ORNL/TM-13384.1998,
615. Gu, B., L. Liang, G.M. Brown, P.V. Bonnesen, B. Moyer, S.D. Alexandratos, and R. Ober,REPORT: A Field Trial of Novel Bifunctional Resins for Removing Peractin from Contaminated Groundwater,ORNL/TM-13593.1998,
616. Hanson, P.J., D.E. Todd, M.A. Huston, J.D. Joslin, J.L. Croker, and R.M. Auge,REPORT: Description and Field Performance of the Walker Branch Throughfall Displacement Experiment: 1993-1996,ORNL/TM-13586.1998,
617. Hildebrand, S.G.,REPORT: Environmental Science: Research, Assessment, and Technology to Understand and Meet the Challenges of the Future,ORNL/M-5911/R1.1998,
618. Hook, L.A., M.-D. Cheng, and T.A. Boden,REPORT: NARSTO Equality Planning Handbook,ORNL/CDIAC-111.1998,
619. Huff, D.D., G.R. Moline, L.E. Toran, A.J. Stewart, R.B. Clapp, and C.T. Rightmire,REPORT: Environmental Sciences Division Ground Water Program Office Report for Fiscal Years 1995-1997,ORNL/M-6520.1998,
620. Hughes, P.J., J.A. Shonder, D.L. White, and H.L. Huang,REPORT: Methodology for the Evaluation of a 4000-Home Geothermal Heat Pump Retrofit at Fort Polk, LA,ORNL/CON-462.1998,
621. Jones, S.B. and K.N. Gibson,REPORT: CDIAC Communications, No. 24, Winter 1998,ORNL/M-6528.1998,
622. Korte, N., M. Muck, P. Kearl, R. Siegrist, T. Houk, R. Schlosser, and J. Zutman,REPORT: Field Evaluation of a Horizontal Well Recirculation System for Groundwater Treatment: Field Demonstration at X701B Portsmouth Gaseous Diffusion Plant, Piketon, Ohio,ORNL/TM-13529.1998,
623. Kszos, L.A., M.G. Ryon, J.G. Smith, and G.R. Southworth,REPORT: Report on the Biological Monitoring Program at Paducah Gaseous Diffusion Plant January-December 1997,ORNL/TM-13592.1998,
624. Lee, S.Y.,REPORT: Report of Foreign Travel for S.Y. Lee, July 25-August 3, 1998,ORNL/FTR-6678.1998,
625. Lewis, E., D. Wallace, and L.J. Allison,REPORT: Program Developed for CO2 System Calculations,ORNL/CDIAC-105.1998,
626. Luxmoore, R.J.,REPORT: Report of Foreign Travel by R. J. Luxmoore, September 15-22, 1998,ORNL/FTR-6738.1998,
627. Marland, G.,REPORT: Report of Foreign Travel for G. Marland, March 9-13, 1998,ORNL/FTR-6516.1998,
628. Marland, G.,REPORT: Report of Foreign Travel for G. Marland, September 21-27, 1998,ORNL/FTR-6728.1998,
629. Marland, G.,REPORT: Report of Foreign Travel for G. Marland, November 29-December 5, 1998,ORNL/FTR-6822.1998,
630. McCarthy, J.F.,REPORT: In-Situ Soil and Water Remediation at Contaminated Sites Utilizing a New Form of Humic Matter called "Humosorb",ORNL/M-6659.1998,
631. McLaughlin, S.,REPORT: Report of Foreign Travel for S. McLaughlin, September 10-27, 1998,ORNL/FTR-6731.1998,

632. Moline, G.R.,REPORT: Homogeneous Reactor Experiment (HRE) Pond Cryogenic Barrier Technology Demonstration: Pre-Barrier Subsurface Hydrology and Contaminant Transport Investigation,ORNL/TM-13566.1998,
633. Morrissey, C.M., D.S. Marshall, and G.R. Cunningham,REPORT: Active Sites Environmental Monitoring Program: FY 1997 Annual Report,ORNL/M-6163.1998,
634. Morrissey, C.M. and G.R. Cunningham,REPORT: Active Sites Environmental Monitoring Program FY 1994 Annual Report,ORNL/M-3788.1998,
635. Mulholland, P.J.,REPORT: Report of Foreign Travel by P. J. Mulholland, August 7-15, 1998,ORNL/FTR-6676.1998,
636. Norby, R.J.,REPORT: Report of Foreign Travel for R.J. Norby, September 24-October 6, 1998,ORNL/FTR-6752.1998,
637. Norby, R.J.,REPORT: Report of Foreign Travel for R.J. Norby, March 13-19, 1998,ORNL/FTR-6500.1998,
638. Nydal, R., A.L. Brenkert, and T.A. Boden,REPORT: Carbon 14 Measurements in Surface Water CO2 from the Atlantic, India, and Pacific Oceans 1965-1994,ORNL/CDIAC-104.1998,
639. O'Neill, E.G.,REPORT: Report of Foreign Travel for E.G. O'Neill, September 24-27, 1998,ORNL/FTR-6764.1998,
640. O'Neill, E.G.,REPORT: Report of Foreign Travel for E.G. O'Neill, July 18-25, 1998,ORNL/FTR-6673.1998,
641. Palumbo, A.V.,REPORT: Report of Foreign Travel by A. V. Palumbo, July 13-28, 1998,ORNL/FTR-6691.1998,
642. Parr, P.D.,REPORT: Comprehensive Integrated Planning: A Process for the Oak Ridge Reservation, Oak Ridge, Tennessee,ORNL/M-6545.1998,
643. Parr, P.D.,REPORT: Report of Foreign Travel for P.D. Parr, August 31-September 5, 1998,ORNL/FTR-6695.1998,
644. Parr, P.D., A.R. Medley, R.J. Forbes, and P.E. Cox,REPORT: Oak Ridge National Laboratory Land and Facilities Plan,ORNL/M-6557.1998,
645. Patterson, R.K., G.F. Momberger, L.A. Hook, M.-D. Cheng, and T.A. Boden,REPORT: NARSTO Equality Systems Management Plan,ORNL/CDIAC-110.1998,
646. Phipps, T.L. and L.A. Kszos,REPORT: Results of Phase I of the Bioavailability Study for the Paducah Gaseous Diffusion Plant: Alternative Calculations of Total Recoverable Copper, Nickel, Lead, and Zinc,ORNL/TM-13583.1998,
647. Post, W.M.,REPORT: Report of Foreign Travel for W.M. Post, September 22-27, 1998,ORNL/FTR-6726.1998,
648. Razuvaev, V.N., R.A. Martuganov, E.G. Apasova, and D.P. Kaiser,REPORT: Six- and Three-hourly Meteorological Observations from 223 U.S.S.R. Stations,ORNL/CDIAC-108.1998,
649. Reichle, D.E., P.S. Rohwer, and A.W. Buttram,REPORT: ORNL Research and Technical Support Programs Funded by DOE's Assistant Secretary for Environment, Safety, and Health (1997 Highlights),ORNL/M-6550.1998,
650. Reichle, D.E., P.S. Rohwer, and A.W. Buttram,REPORT: ORNL Research and Technical Support Programs Funded by DOE's Assistant Secretary for Environment, Safety, and Health (Brochure),ORNL/M-6551.1998,
651. Rosensteel, B.A.,REPORT: Rapid Assessment of Potential Habitats or Occurrences of Threatened and Endangered (T&E) Vascular Plants on the East Bear Creek Valley Site for a Proposed On-Site Waste Management Facility.,ORNL/M-6582.1998,
652. Ryon, M.G.,REPORT: Evaluation of Protected, Threatened, and Endangered Fish Species in Upper Bear Creek Watershed,ORNL/M-6567.1998,
653. Tschaplinski, T.J., G.A. Tuskan, G.M. Gebre, D.E. Todd, and H.D. radshaw,REPORT: Limits of Drought Tolerance in Populus,ORNL/M-6368.1998,
654. Tuskan, G.A.,REPORT: Report of Foreign Travel for G.A. Tuskan, March 3-22, 1998,ORNL/FTR-6506.1998,
655. Webb, J.W.,REPORT: Evaluation of Terrestrial Wildlife Resources on the East Bear Creek



- Valley Site for a Proposed On-Site Waste Management Facility.,ORNL/M-6581.1998,
656. Webb, J.W.,REPORT: Evaluation of Terrestrial Wildlife Resources on the East Bear Creek Valley Site for a Proposed Onsite Disposal Facility,BJC/OR-100.1998,
657. Wright, L.L.,REPORT: Report of Foreign Travel by L. L. Wright, June 1-12, 1998,ORNL/FTR-6603.1998,
658. Wullschleger, S.D., L.E. Gunter, and C.T. Garten, Jr.,REPORT: Genetic Diversity, Carbon/Nitrogen Cycling, and Long-Term Sustainability of Yield in the Bioenergy Crops Switchgrass (*Panicum Virgatum*),ORNL/M-6516.1998,
659. Zhou, J.,REPORT: Report of Foreign Travel by J. Zhou, July 18-27, 1998,ORNL/FTR-6690.1998,
660. Zhou, J., S.V. Liu, C. Zhang, A.V. Palumbo, and T.J. Phelps,REPORT: Extremophilic iron-reducing bacteria: Their implications for possible life in extraterrestrial environments,ORNL/CP--97844.Jun,1998,Oak Ridge:Oak Ridge National Laboratory

#### 1999 Books

661. Dale, V.H. and R.V. O'Neill, BOOK: *Tools to Characterize the Environmental Setting*. 1999, New York: Springer-Verlag.

#### 1999 Book Sections

662. Adams, S.M. and M.S. Greeley, BOOK SECTION: *Environmental Challenges of Water-Quality Assessment: Using Integrated Bioindicators to Evaluate Aquatic Ecosystem Health*. 1999, Kluwer Publishers: Amsterdam.
663. Adams, S.M., BOOK SECTION: *Ecological Role of Lipids in the Health and Success of Fish Populations*. 1999, Springer-Verlag: New York. p. 132-140.
664. Amthor, J.S., BOOK SECTION: *Increasing Atmospheric CO<sub>2</sub> Concentration, Water Use, and Water Stress: Scaling Up from the Plant to the Landscape*. 1999, Academic Press. p. 33-59.
665. Bjornstad, D.J., S.R. Elliott, and D.R. Hale, BOOK SECTION: *Understanding experimental economics and policy analysis in a federal agency: The case of marketable emissions trading*, in *Research in Experimental Economics*. 1999. p. 163-180.
666. Brown, G.M., P.V. Bonnesen, B.A. Moyer, B. Gu, S.D. Alexandratos, V. Patel, and R. Ober, BOOK SECTION: *The Design of Selective Resins for the Removal of Perchlorate and Perchlorate from Groundwater*. 1999, Kluwer Academic: New York.
667. Dale, V.H., A.W. King, L.K. Mann, and T.L. Ashwood, BOOK SECTION: *Contributions of Spatial Information and Models to Management of Rare and Declining Species*. 1999, Gordon and Breach Science Publishers: Lausanne.
668. Dale, V.H. and S.M. Pearson, BOOK SECTION: *Modeling the Driving Factors and Ecological Consequences of Deforestation in the Brazilian Amazon*. 1999, Cambridge University Press. p. 256-276.
669. Ebinghaus, R., R.M. Tripathi, D. Wallschlager, and S.E. Lindberg, BOOK SECTION: *Natural and Anthropogenic Mercury Sources and Their Impact on the Air-Surface Exchange of Mercury on Regional and Global Scales*. 1999, Springer-Verlag. p. 1-50.
670. Gamey, T.J., J.S. Holladay, J. Nyquist, and W.E. Doll, BOOK SECTION: *An Airborne Multisensor Characterization of an Active Nuclear Waste Site*. 1999, Society of Exploration Geophysicists; American Association of Petroleum Geologists.
671. Gwo, J.P., G.V. Wilson, P.M. Jardine, and E.F. D'Azevedo, BOOK SECTION: *Modeling Subsurface Contaminant Reactions and Transport at the Watershed Scale*. 1999, American Geophysical Union: Washington, DC. p. 31-43.
672. Jardine, P.M., G.V. Wilson, R.J. Luxmoore, and J.P. Gwo, BOOK SECTION: *Conceptual Model of Vadose-Zone Transport in Fractured Weathered Shales*. 1999, National Research

- Council. p. 87-114.
673. Jardine, P.M., S.C. Brooks, G.V. Wilson, and W.E. Sanford, BOOK SECTION: *Basic Research Strategies for Resolving Remediation Needs in Contaminated Fractured Subsurface Media*. 1999, American Geophysical Union. p. 389-400.
674. Marland, G., T.A. Boden, A. Brenkert, and R.J. Andres, BOOK SECTION: *Historical and Projected Global Greenhouse Gas Emissions*. 1999, Air & Waste Management Association: Sewickley, PA. p. 37-42.
675. Marland, G. and B. Schlamadinger, BOOK SECTION: *The Contribution of Biomass Energy Systems to the Global Carbon Balance*. 1999, Aspen Global Change Institute: Aspen. p. 118-121.
676. Olson, R.J.M., R.A., BOOK SECTION: *Archiving Ecological Data and Information*. 1999, Blackwell Scienc.
677. Palmer, R.J. and D.C. White, BOOK SECTION: *Spatially Resolved, Quantitative Determination of Luciferase Activity by Photon-Counting Microscopy*. 1999, Academic Press. p. 152-160.
678. Palumbo, A.V., J. Zhou, T.J. Phelps, B. Kinsall, C. Zhang, E. Majer, T. Griffin, and S.M. Pfiffner, BOOK SECTION: *Ecology and Bioremediation: A Staged Approach to Site Characterization*. 1999, Battelle Press. p. 195-204.
679. Turner, R.R. and G.R. Southworth, BOOK SECTION: *Mercury-Contaminated Industrial and Mining Sites in North America: An Overview with Selected Case Studies*. 1999, Springer Verlag: Heidelberg, Germany. p. 89-112.
680. Zinn, M.S., R.D. Kirkegaard, R.J. Palmer, Jr., and D.C. White, BOOK SECTION: *Laminar Flow Chamber for Continuous Monitoring of Biofilm Formation and Succession*. 1999, Academic Press. p. 224-243.

#### 1999 Journal Articles

681. Adams, S.M., M.S. Bevelhimer, M.S. Greeley, D.A. Levine, and S.J. Teh, Environ. Toxicol. Chem. ARTICLE: *Ecological risk assessment in a large river-reservoir: 6. Bioindicators of fish population health*. Environ. Toxicol. Chem., 1999. **18**(4): p. 628-640.
682. Adams, J.M. and W.M. Post, Glob. Planet. Change ARTICLE: *A preliminary estimate of changing calcrete carbon storage on land since the Last Glacial Maximum*. Glob. Planet. Change, 1999. **20**(4): p. 243-256.
683. Adams, J.M., Environ. Manage. ARTICLE: *A suggestion for an improved vegetation scheme for local and global mapping and monitoring*. Environ. Manage., 1999. **23**(1): p. 1-13.
684. Andres, R.J., D.J. Fielding, G. Marland, T.A. Boden, N. Kumar, and A.T. Kearney, Tellus Ser. B-Chem. Phys. Meteorol. ARTICLE: *Carbon dioxide emissions from fossil-fuel use, 1751-1950*. Tellus Ser. B-Chem. Phys. Meteorol., 1999. **51**(4): p. 759-765.
685. Baron, L.A., B.E. Sample, and G.W. Suter, Environ. Toxicol. Chem. ARTICLE: *Ecological risk assessment in a large river-reservoir: 5. Aerial insectivorous wildlife*. Environ. Toxicol. Chem., 1999. **18**(4): p. 621-627.
686. BassiriRad, H., S.A. Prior, R.J. Norby, and H.H. Rogers, Plant Soil ARTICLE: *A field method of determining NH<sub>4</sub><sup>+</sup> and NO<sub>3</sub><sup>-</sup> uptake kinetics in intact roots: Effects of CO<sub>2</sub> enrichment on trees and crop species*. Plant Soil, 1999. **217**(1-2): p. 195-204.
687. Boughton, D.A., E.R. Smith, and R.V. O'Neill, Ecosyst. Health ARTICLE: *Regional vulnerability: A conceptual framework*. Ecosyst. Health, 1999. **5**(4): p. 312-322.
688. Breitburg, D.L., K.A. Rose, and J.H. Cowan, Mar. Ecol.-Prog. Ser. ARTICLE: *Linking water quality to larval survival: predation mortality of fish larvae in an oxygen-stratified water column*. Mar. Ecol.-Prog. Ser., 1999. **178**: p. 39-54.
689. Brooks, S.C., S.L. Carroll, and P.M. Jardine, Environ. Sci. Technol. ARTICLE: *Sustained bacterial reduction of Co(III)EDTA(-) in the presence of competing geochemical oxidation during dynamic flow*. Environ. Sci. Technol., 1999. **33**(17): p. 3002-3011.
690. Cheng, M.D., T.M. Nash, and S.E. Kopetz, J. Aerosol. Sci. ARTICLE: *Retrieval of aerosol*

- optical thickness by means of the least-median-squares robust algorithm.* J. Aerosol. Sci., 1999. **30**(6): p. 805-817.
691. Cicerone, D.S., A.J. Stewart, and Y. Roh, Environ. Toxicol. Chem. ARTICLE: *Diel cycles in calcite production and dissolution in a eutrophic basin.* Environ. Toxicol. Chem., 1999. **18**(10): p. 2169-2177.
692. Cook, R.B., G.W. Suter, and E.R. Sain, Environ. Toxicol. Chem. ARTICLE: *Ecological risk assessment in a large river-reservoir: 1. Introduction and background.* Environ. Toxicol. Chem., 1999. **18**(4): p. 581-588.
693. Cooper, L.W., T. Beasley, K. Aagaard, J.M. Kelley, I.L. Larsen, and J.M. Grebmeier, J. Mar. Res. ARTICLE: *Distributions of nuclear fuel-reprocessing tracers in the Arctic Ocean: Indications of Russian river influence.* J. Mar. Res., 1999. **57**(5): p. 715-738.
694. Cooper, L.W., G.F. Cota, L.R. Pomeroy, J.M. Grebmeier, and T.E. Whittlege, J. Geophys. Res.-Oceans ARTICLE: *Modification of NO, PO, and NO/PO during flow across the Bering and Chukchi shelves: Implications for use as Arctic water mass tracers.* J. Geophys. Res.-Oceans, 1999. **104**(C4): p. 7827-7836.
695. Cornejo, J.J., F.G. Munoz, C.Y. Ma, and A.J. Stewart, Ecotoxicology ARTICLE: *Studies on the decontamination of air by plants.* Ecotoxicology, 1999. **8**(4): p. 311-320.
696. Efroymson, R.A., J. Environ. Assess. Policy Manage. ARTICLE: *Regulating risk: Oversight of microbial products of biotechnology under the U.S. Toxic Substances Control Act.* J. Environ. Assess. Policy Manage., 1999(3): p. 329-347.
697. Efroymson, R.A. and G.W. Suter, Hum. Ecol. Risk Assess. ARTICLE: *Finding a niche for soil microbial toxicity tests in ecological risk assessment.* Hum. Ecol. Risk Assess., 1999. **5**(4): p. 715-727.
698. Ensminger, J.T., L.N. McCold, and J.W. Webb, Environ. Manage. ARTICLE: *Environmental impact assessment under the National Environmental Policy Act and the Protocol on Environmental Protection to the Antarctic Treaty.* Environ. Manage., 1999. **24**(1): p. 13-23.
699. Faulkner, J.S., Y. Wang, and G.M. Stocks, Phys. Rev. Lett. ARTICLE: *Comment on "Core level shifts in metallic alloys" - Reply.* Phys. Rev. Lett., 1999. **83**(17): p. 3572-3572.
700. Fendorf, S., P.M. Jardine, R.R. Patterson, D.L. Taylor, and S.C. Brooks, Geochim. Cosmochim. Acta ARTICLE: *Pyrolusite surface transformations measured in real-time during the reactive transport of Co(II)EDTA(2-).* Geochim. Cosmochim. Acta, 1999. **63**(19-20): p. 3049-3057.
701. Fitz-Gerald, J.M., P.D. Rack, T.A. Trottier, M. Ollinger, S.J. Pennycook, H. Gao, and R.K. Singh, Journal of Applied Physics ARTICLE: *Synthesis of spherical luminescent particulate coatings.* Journal of Applied Physics, 1999. **86**(3): p. 1759-1761.
702. Fitz-Gerald, J.M., R.K. Singh, H. Gao, D. Wright, M. Ollinger, J.W. Marcinka, and S.J. Pennycook, J. Mater. Res. ARTICLE: *Novel method for the synthesis of thin film coatings on particulate materials.* J. Mater. Res., 1999. **14**(8): p. 3281-3291.
703. Ford, C.Z., G.S. Sayler, and R.S. Burlage, Appl. Microbiol. Biotechnol. ARTICLE: *Containment of a genetically engineered microorganism during a field bioremediation application.* Appl. Microbiol. Biotechnol., 1999. **51**(3): p. 397-400.
704. Francis, C.W., M.E. Timpson, and J.H. Wilson, J. Hazard. Mater. ARTICLE: *Bench- and pilot-scale studies relating to the removal of uranium from uranium-contaminated soils using carbonate and citrate lixiviants.* J. Hazard. Mater., 1999. **66**(1-2): p. 67-87.
705. Garten, C.T., J. Environ. Radioact. ARTICLE: *Modeling the potential role of a forest ecosystem in phytostabilization and phytoextraction of Sr-90 at a contaminated watershed.* J. Environ. Radioact., 1999. **43**(3): p. 305-323.
706. Garten, C.T., W.M. Post, P.J. Hanson, and L.W. Cooper, Biogeochemistry ARTICLE: *Forest soil carbon inventories and dynamics along an elevation gradient in the southern Appalachian Mountains.* Biogeochemistry, 1999. **45**(2): p. 115-145.
707. Garten, C.T. and S.D. Wullschleger, J. Environ. Qual. ARTICLE: *Soil carbon inventories under a bioenergy crop (switchgrass): Measurement limitations.* J. Environ. Qual., 1999. **28**(4): p.

- 1359-1365.
708. Gu, B., T.J. Phelps, L. Liang, M.J. Dickey, Y. Roh, B.L. Kinsall, A.V. Palumbo, and G.K. Jacobs, Environ. Sci. Technol. ARTICLE: *Biogeochemical dynamics in zero-valent iron columns: Implications for permeable reactive barriers*. Environ. Sci. Technol., 1999. **33**(13): p. 2170-2177.
709. Gustin, M.S., S.E. Lindberg, and M.A. Allan, J. Geophys. Res.-Atmos. ARTICLE: *Special Section: Constraining mercury emissions from naturally enriched surfaces: Assessment of methods and controlling parameters (Mercury Flux) - Preface*. J. Geophys. Res.-Atmos., 1999. **104**(D17): p. 21829-21830.
710. Hargrove, W.W. and F.M. Hoffman, Comput. Sci. Eng. ARTICLE: *Using multivariate clustering to characterize ecoregion borders*. Comput. Sci. Eng., 1999. **1**(4): p. 18-25.
711. He, Q., D.K. Christen, R. Feenstra, D.P. Norton, M. Paranthaman, E.D. Specht, D.F. Lee, A. Goyal, and D.M. Kroeger, Physica C ARTICLE: *Growth of biaxially oriented conductive LaNiO<sub>3</sub> buffer layers on textured Ni tapes for high-T-c-coated conductors*. Physica C, 1999. **314**(1-2): p. 105-111.
712. Hill, W.R. and A.R. McNamara, Limnol. Oceanogr. ARTICLE: *Sun angle, site selection, parameter choice, and generalizing UV effects in freshwater benthic ecosystems (Reply to the comment by Donahue and Clare)*. Limnol. Oceanogr., 1999. **44**(2): p. 474-475.
713. Hoffmann, G.R., A.M. Sayer, E.E. Joiner, A.F. McFee, and L.G. Littlefield, Environ. Mol. Mutagen. ARTICLE: *Analysis by FISH of the spectrum of chromosome aberrations induced by x-rays in G(o) human lymphocytes and their fate through mitotic divisions in culture*. Environ. Mol. Mutagen., 1999. **33**(2): p. 94-110.
714. Huston, M.A., Oikos ARTICLE: *Local processes and regional patterns: appropriate scales for understanding variation in the diversity of plants and animals*. Oikos, 1999. **86**(3): p. 393-401.
715. Huston, M.A., Ecology ARTICLE: *Microcosm experiments have limited relevance for community and ecosystem ecology: Synthesis of comments*. Ecology, 1999. **80**(3): p. 1088-1089.
716. Jager, H.I., W. Van Winkle, and B.D. Holcomb, Trans. Am. Fish. Soc. ARTICLE: *Would hydrologic climate changes in Sierra Nevada streams influence trout persistence?* Trans. Am. Fish. Soc., 1999. **128**(2): p. 222-240.
717. Jardine, P.M., S.E. Fendorf, M.A. Mayes, I.L. Larsen, S.C. Brooks, and W.B. Bailey, Environ. Sci. Technol. ARTICLE: *Fate and transport of hexavalent chromium in undisturbed heterogeneous soil*. Environ. Sci. Technol., 1999. **33**(17): p. 2939-2944.
718. Jardine, P.M., W.E. Sanford, J.P. Gwo, O.C. Reedy, D.S. Hicks, J.S. Riggs, and W.B. Bailey, Water Resour. Res. ARTICLE: *Quantifying diffusive mass transfer in fractured shale bedrock*. Water Resour. Res., 1999. **35**(7): p. 2015-2030.
719. Jones, D.S., L.W. Barnhouse, G.W. Suter, R.A. Efroymsen, J.M. Field, and J.J. Beauchamp, Environ. Toxicol. Chem. ARTICLE: *Ecological risk assessment in a large river-reservoir: 3. Benthic invertebrates*. Environ. Toxicol. Chem., 1999. **18**(4): p. 599-609.
720. Lindberg, S.E., H. Zhang, M. Gustin, A. Vette, F. Marsik, J. Owens, A. Casimir, R. Ebinghaus, G. Edwards, C. Fitzgerald, J. Kemp, H.H. Kock, J. London, M. Majewski, L. Poissant, M. Pilote, P. Rasmussen, F. Schaedlich, D. Schneeberger, J. Sommar, R. Turner, D. Wallschlager, and Z. Xiao, J. Geophys. Res.-Atmos. ARTICLE: *Increases in mercury emissions from desert soils in response to rainfall and irrigation*. J. Geophys. Res.-Atmos., 1999. **104**(D17): p. 21879-21888.
721. Lindberg, S.E. and J.L. Price, J. Air Waste Manage. Assoc. ARTICLE: *Airborne emissions of mercury from municipal landfill operations: A short-term measurement study in Florida*. J. Air Waste Manage. Assoc., 1999. **49**(5): p. 520-532.
722. Liu, W.M., W.S. Zhang, F.C. Pu, and X. Zhou, Phys. Rev. B ARTICLE: *Nonlinear magnetization dynamics of the classical ferromagnet with two single-ion anisotropies in an external magnetic field*. Phys. Rev. B, 1999. **60**(18): p. 12893-12911.
723. Loomis, R.S. and J.S. Amthor, Crop Sci. ARTICLE: *Yield potential, plant assimilatory capacity,*

- and metabolic efficiencies*. Crop Sci., 1999. **39**(6): p. 1584-1596.
724. Luxmoore, R.J., M.L. Tharp, and R.A. Efrogmson, J. Environ. Qual. ARTICLE: *Comparison of simulated forest responses to biosolids applications*. J. Environ. Qual., 1999. **28**(6): p. 1996-2007.
725. Mahinthakumar, G., J.P. Gwo, G.R. Moline, and O.F. Webb, J. Environ. Eng.-ASCE ARTICLE: *Subsurface biological activity zone detection using genetic search algorithms*. J. Environ. Eng.-ASCE, 1999. **125**(12): p. 1103-1112.
726. Mann, L.K., A.W. King, V.H. Dale, W.W. Hargrove, R. Washington-Allen, L.R. Pounds, and T.L. Ashwood, Ecosystems ARTICLE: *The role of soil classification in geographic information system modeling of habitat pattern: Threatened calcareous ecosystems*. Ecosystems, 1999. **2**(6): p. 524-538.
727. Martin, M.Z., M.D. Cheng, and R.C. Martin, Aerosol Sci. Technol. ARTICLE: *Aerosol measurement by laser-induced plasma technique: A review*. Aerosol Sci. Technol., 1999. **31**(6): p. 409-421.
728. Mazumder, R., T.J. Phelps, N.R. Krieg, and R.E. Benoit, J. Microbiol. Methods ARTICLE: *Determining chemotactic responses by two subsurface microaerophiles using a simplified capillary assay method*. J. Microbiol. Methods, 1999. **37**(3): p. 255-263.
729. McCarthy, J.F., Abstr. Pap. Am. Chem. Soc. ARTICLE: *Colloid transport and mobilization in subsurface environments*. Abstr. Pap. Am. Chem. Soc., 1999. **217**: p. U730-U730.
730. McLaughlin, S.B. and R. Wimmer, New Phytol. ARTICLE: *Tansley Review No. 104 - Calcium physiology and terrestrial ecosystem processes*. New Phytol., 1999. **142**(3): p. 373-417.
731. McNamara, A.R. and W.R. Hill, J. N. Am. Benthol. Soc. ARTICLE: *Effects of UV-B dose and irradiance: comparison among grazers*. J. N. Am. Benthol. Soc., 1999. **3**: p. 370-380.
732. Meyer, J.L., M.J. Sale, P.J. Mulholland, and N.L. Poff, J. Am. Water Resour. Assoc. ARTICLE: *Impacts of climate change on aquatic ecosystem functioning and health*. J. Am. Water Resour. Assoc., 1999. **35**(6): p. 1373-1386.
733. Moore, D.R.J., B.E. Sample, G.W. Suter, B.R. Parkhurst, and R.S. Teed, Environ. Toxicol. Chem. ARTICLE: *A probabilistic risk assessment of the effects of methylmercury and PCBS on mink and kingfishers along East Fork Poplar Creek, Oak Ridge, Tennessee, USA*. Environ. Toxicol. Chem., 1999. **18**(12): p. 2941-2953.
734. Moore, D.R.J., B.E. Sample, G.W. Suter, B.R. Parkhurst, and R.S. Teed, Environ. Toxicol. Chem. ARTICLE: *Risk-based decision making: The East Fork Poplar Creek case study*. Environ. Toxicol. Chem., 1999. **18**(12): p. 2954-2958.
735. Mulholland, P.J., E.R. Marzolf, J.R. Webster, D.R. Hart, and S.P. Hendricks, Limnol. Oceanogr. ARTICLE: *Errata: Evidence that hyporheic zones increase heterotrophic metabolism and phosphorus uptake in forest streams (vol 42, pg 443, 1997)*. Limnol. Oceanogr., 1999. **44**(1): p. 230-231.
736. Munchow, A., T.J. Weingartner, and L.W. Cooper, J. Phys. Oceanogr. ARTICLE: *The summer hydrography and surface circulation of the east Siberian shelf Sea*. J. Phys. Oceanogr., 1999. **29**(9): p. 2167-2182.
737. Norby, R.J., S.D. Wullschleger, C.A. Gunderson, D.W. Johnson, and R. Ceulemans, Plant Cell Environ. ARTICLE: *Tree responses to rising CO<sub>2</sub> in field experiments: implications for the future forest*. Plant Cell Environ., 1999. **22**(6): p. 683-714.
738. Olson, R.J., J.M. Briggs, J.H. Porter, G.R. Mah, and S.G. Stafford, Remote Sens. Environ. ARTICLE: *Managing data from multiple disciplines, scales, and sites to support synthesis and modeling*. Remote Sens. Environ., 1999. **70**(1): p. 99-107.
739. O'Neill, R.V., K.H. Riitters, J.D. Wickham, and K.B. Jones, Ecosyst. Health ARTICLE: *Landscape pattern metrics and regional assessment*. Ecosyst. Health, 1999. **5**(4): p. 225-233.
740. Oparin, A.B., D.M.C. Nicholson, X.G. Zhang, W.H. Butler, W.A. Shelton, G.M. Stocks, and Y. Wang, J. Appl. Phys. ARTICLE: *Magnetic structure at copper-permalloy interfaces*. J. Appl. Phys., 1999. **85**(8): p. 4548-4550.
741. Osborne, T.H., K.H. Burrell, R.J. Groebner, L.L. Lao, A.W. Leonard, R. Maingi, R.L. Miller,

- G.D. Porter, G.M. Staebler, and A.D. Turnbull, J. Nucl. Mater. ARTICLE: *H-mode pedestal characteristics in ITER shape discharges on DIII-D*. J. Nucl. Mater., 1999. **269**: p. 131-137.
742. Palumbo, A.V., J. Zhou, J.B. Figueras, B. Xia, C.A. Abella, and J.M. Tiedje, J. Appl. Microbiol. ARTICLE: *Differences in molecular diversity of microbial communities from a hypereutrophic lake and the terrestrial subsurface*. J. Appl. Microbiol., 1999. **Suppl 1**: p. 258S-259S.
743. Peterson, A.G., J.T. Ball, Y. Luo, C.B. Field, P.S. Curtis, K.L. Griffin, C.A. Gunderson, R.J. Norby, D.T. Tissue, M. Forstreuter, A. Rey, and C.S. Vogel, Plant Cell Environ. ARTICLE: *Quantifying the response of photosynthesis to changes in leaf nitrogen content and leaf mass per area in plants grown under atmospheric CO<sub>2</sub> enrichment*. Plant Cell Environ., 1999. **22**(9): p. 1109-1119.
744. Peterson, A.G., J.T. Ball, Y.Q. Luo, C.B. Field, P.B. Reich, P.S. Curtis, K.L. Griffin, C.A. Gunderson, R.J. Norby, D.T. Tissue, M. Forstreuter, A. Rey, and C.S. Vogel, Glob. Change Biol. ARTICLE: *The photosynthesis leaf nitrogen relationship at ambient and elevated atmospheric carbon dioxide: a meta-analysis*. Glob. Change Biol., 1999. **5**(3): p. 331-346.
745. Railsback, S.F. and K.A. Rose, Trans. Am. Fish. Soc. ARTICLE: *Bioenergetics modeling of stream trout growth: Temperature and food consumption effects*. Trans. Am. Fish. Soc., 1999. **128**(2): p. 241-256.
746. Roos, A., R.L. Graham, B. Hektor, and C. Rakos, Biomass Bioenerg. ARTICLE: *Critical factors to bioenergy implementation*. Biomass Bioenerg., 1999. **17**(2): p. 113-126.
747. Rose, K.A., E.S. Rutherford, D.S. McDermot, J.L. Forney, and E.L. Mills, Ecol. Monogr. ARTICLE: *Individual-based model of yellow perch and walleye populations in Oneida Lake*. Ecol. Monogr., 1999. **69**(2): p. 127-154.
748. Salk, M.S., V.R. Tolbert, and J.A. Dickerman, Environ. Manage. ARTICLE: *Guidelines and techniques for improving the NEPA process*. Environ. Manage., 1999. **23**(4): p. 467-476.
749. Sample, B.E. and G.W. Suter, Environ. Toxicol. Chem. ARTICLE: *Ecological risk assessment in a large river-reservoir: 4. Piscivorous wildlife*. Environ. Toxicol. Chem., 1999. **18**(4): p. 610-620.
750. Sample, B.E. and C.A. Arenal, Bull. Environ. Contam. Toxicol. ARTICLE: *Allometric models for interspecies extrapolation of wildlife toxicity data*. Bull. Environ. Contam. Toxicol., 1999. **62**(6): p. 653-663.
751. Sample, B.E., G.W. Suter, J.J. Beauchamp, and R.A. Efroymson, Environ. Toxicol. Chem. ARTICLE: *Literature-derived bioaccumulation models for earthworms: Development and validation*. Environ. Toxicol. Chem., 1999. **18**(9): p. 2110-2120.
752. Schlamadinger, B. and G. Marland, Tellus Ser. B-Chem. Phys. Meteorol. ARTICLE: *Net effect of forest harvest on CO<sub>2</sub> emissions to the atmosphere: a sensitivity analysis on the influence of time*. Tellus Ser. B-Chem. Phys. Meteorol., 1999. **51**(2): p. 314-325.
753. Schlosser, P., R. Bayer, G. Bonisch, L.W. Cooper, B. Ekwurzel, W.J. Jenkins, S. Khatiwala, S. Pfirman, and W.M. Smethie, Sci. Total Environ. ARTICLE: *Pathways and mean residence times of dissolved pollutants in the ocean derived from transient tracers and stable isotopes*. Sci. Total Environ., 1999. **238**: p. 15-30.
754. Scurlock, J.M.O., W. Cramer, R.J. Olson, W.J. Parton, and S.D. Prince, Ecol. Appl. ARTICLE: *Terrestrial NPP: Toward a consistent data set for global model evaluation*. Ecol. Appl., 1999. **9**(3): p. 913-919.
755. Siegrist, R.L., K.S. Lowe, L.C. Murdoch, T.L. Case, and D.A. Pickering, J. Environ. Eng.-ASCE ARTICLE: *In situ oxidation by fracture emplaced reactive solids*. J. Environ. Eng.-ASCE, 1999. **125**(5): p. 429-440.
756. Stallard, B.W., C.M. Greenfield, G.M. Staebler, C.L. Rettig, M.S. Chu, M.E. Austin, D.R. Baker, L.R. Baylor, K.H. Burrell, J.C. DeBoo, J.S. deGrassie, E.J. Doyle, J. Lohr, G.R. McKee, R.L. Miller, W.A. Peebles, C.C. Petty, R.I. Pinsker, B.W. Rice, T.L. Rhodes, R.E. Waltz, and L. Zeng, Phys. Plasmas ARTICLE: *Electron heat transport in improved confinement discharges in DIII-D*. Phys. Plasmas, 1999. **6**(5): p. 1978-1984.
757. Stevens, M.T., M.G. Turner, G.A. Tuskan, W.H. Romme, L.E. Gunter, and D.M. Waller, Mol.

- Ecol. ARTICLE: *Genetic variation in postfire aspen seedlings in Yellowstone National Park*. Mol. Ecol., 1999. **8**(11): p. 1769-1780.
758. Suter, G.W., L.W. Barnthouse, R.A. Efroymson, and H. Jager, Environ. Toxicol. Chem. ARTICLE: *Ecological risk assessment in a large river-reservoir: 2. Fish community*. Environ. Toxicol. Chem., 1999. **18**(4): p. 589-598.
759. Suter, G.W., Hum. Ecol. Risk Assess. ARTICLE: *Developing conceptual models for complex ecological risk assessments*. Hum. Ecol. Risk Assess., 1999. **5**(2): p. 375-396.
760. Suter, G.W., Hum. Ecol. Risk Assess. ARTICLE: *A framework for assessment of ecological risks from multiple activities*. Hum. Ecol. Risk Assess., 1999. **5**(2): p. 397-413.
761. Tonn, B., Foresight ARTICLE: *Sustainability and supra-communitarianism*. Foresight, 1999. **4**: p. 343-352.
762. Wali, M.K., F. Evrendilek, T.O. West, S.E. Watts, D. Pant, H.K. Gibbs, and B.E. McClead, Nat. Resour. ARTICLE: *Assessing terrestrial ecosystem sustainability: Usefulness of regional carbon and nitrogen models*. Nat. Resour., 1999. **35**(4): p. 21-33.
763. Wickham, J.D., K.B. Jones, K.H. Riitters, R.V. O'Neill, R.D. Tankersley, E.R. Smith, A.C. Neale, and D.J. Chaloud, Environ. Manage. ARTICLE: *An integrated environmental assessment of the US mid-Atlantic region*. Environ. Manage., 1999. **24**(4): p. 553-560.
764. Wilbanks, T.J. and R.W. Kates, Clim. Change ARTICLE: *Global change in local places: How scale matters*. Clim. Change, 1999. **43**(3): p. 601-628.
765. With, K.A. and A.W. King, Conserv. Biol. ARTICLE: *Extinction thresholds for species in fractal landscapes*. Conserv. Biol., 1999. **13**(2): p. 314-326.
766. Yang, Y., I. Baker, and E.P. George, Mater. Charact. ARTICLE: *Effect of vacancies on the tensile properties of Fe-40Al single crystals in air and vacuum*. Mater. Charact., 1999. **42**(2-3): p. 161-167.
767. Yang, Y., I. Baker, and P. Martin, Philos. Mag. B-Phys. Condens. Matter Stat. Mech. Electron. Opt. Magn. Prop. ARTICLE: *On the mechanism of the paramagnetic-to-ferromagnetic transition in Fe-Al*. Philos. Mag. B-Phys. Condens. Matter Stat. Mech. Electron. Opt. Magn. Prop., 1999. **79**(3): p. 449-461.
768. Zhang, C.L., R.D. Stapleton, J.Z. Zhou, A.V. Palumbo, and T.J. Phelps, FEMS Microbiol. Ecol. ARTICLE: *Iron reduction by psychotrophic enrichment cultures*. FEMS Microbiol. Ecol., 1999. **30**(4): p. 367-371.
769. Zhang, H. and S.E. Lindberg, J. Geophys. Res.-Atmos. ARTICLE: *Processes influencing the emission of mercury from soils: A conceptual model*. J. Geophys. Res.-Atmos., 1999. **104**(D17): p. 21889-21896.
770. Zhou, J.Z., A.V. Palumbo, and J.M. Strong, Appl. Biochem. Biotechnol. ARTICLE: *Phylogenetic characterization of a mixed microbial community capable of degrading carbon tetrachloride*. Appl. Biochem. Biotechnol., 1999. **80**(3): p. 243-253.

#### 1999 Reports

771. Bates, P., J. Chandler, H.I. Jager, K. Lepla, and W. Van Winkle, REPORT: *Population Viability Analysis of Riverine Fishes*, ORNL/CP-102391. Apr, 1999, Oak Ridge: Oak Ridge National Laboratory
772. Blasing, T.J., G.F. Cada, M. Carer, S.M. Chin, J.A. Dickerman, D.A. Etnier, R. Gibson, M. Harvey, B. Hatcher, D. Lietzke, L.K. Mann, P.J. Mulholland, C.H. Petrich, L.R. Pounds, J. Ranney, R.M. Reed, P.F. Ryan, M. Schweitzer, D.C. Smith, P. Thomason, and M.C. Wade, REPORT: *Foothills Parkway Section 8B Final Environmental Report, Volume 5, Appendices J-M*, ORNL/M-5910/V5. Jul, 1999, Oak Ridge: Oak Ridge National Laboratory
773. Blasing, T.J., G.F. Cada, M. Carer, S.M. Chin, J.A. Dickerman, D.A. Etnier, R. Gibson, M. Harvey, B. Hatcher, D. Lietzke, L.K. Mann, P.J. Mulholland, C.H. Petrich, L.R. Pounds, J. Ranney, R.M. Reed, P.F. Ryan, M. Schweitzer, D.C. Smith, P. Thomason, and M.C. Wade, REPORT: *Foothills Parkway Section 8B Final Environmental Report, Volume 2*,

774. Appendices A-C,ORNL/M-5910/V2.Jul,1999,Oak Ridge:Oak Ridge National Laboratory  
Blasing, T.J., G.F. Cada, M. Carer, S.M. Chin, J.A. Dickerman, D.A. Etnier, R. Gibson, M. Harvey, B. Hatcher, D. Lietzke, L.K. Mann, P.J. Mulholland, C.H. Petrich, L. Pounds, J. Ranney, R.M. Reed, P.F. Ryan, M. Schweitzer, D.C. Smith, P. Thomason, and M.C. Wade,REPORT: Foothills Parkway Section 8B Final Environmental Report, Volume 1,ORNL/M-5910/V1.Jul,1999,Oak Ridge:Oak Ridge National Laboratory
775. Blasing, T.J., G.F. Cada, M. Carer, S.M. Chin, J.A. Dickerman, D.A. Etnier, R. Gibson, M. Harvey, B. Hatcher, D. Lietzke, L.K. Mann, P.J. Mulholland, C.H. Petrich, L. Pounds, J. Ranney, R.M. Reed, P.F. Ryan, M. Schweitzer, D.C. Smith, P. Thomason, and M.C. Wade,REPORT: Foothills Parkway Section 8B Final Environmental Report, Volume 3, Appendix D,ORNL/M-5910/V3.Jul,1999,Oak Ridge:Oak Ridge National Laboratory
776. Blasing, T.J., G.F. Cada, M. Carer, S.M. Chin, J.A. Dickerman, D.A. Etnier, R. Gibson, M. Harvey, B. Hatcher, D. Lietzke, L.K. Mann, P.J. Mulholland, C.H. Petrich, L. Pounds, J. Ranney, R.M. Reed, P.F. Ryan, M. Schweitzer, D. Smith, P. Thomason, and M.C. Wade,REPORT: Foothills Parkway Section 8B Final Environmental Report, Volume 4, Appendices E-I,ORNL/M-5910/V4.Jul,1999,Oak Ridge:Oak Ridge National Laboratory
777. Blasing, T.J., G.F. Cada, M. Carer, S.M. Chin, J.A. Dickerman, D.A. Etnier, R. Gibson, M. Harvey, B. Hatcher, D. Lietzke, L.K. Mann, P.J. Mulholland, C.H. Petrich, L. Pounds, J. Ranney, R.M. Reed, P.F. Ryan, M. Schweitzer, D. Smith, P. Thomason, and M.C. Wade,REPORT: Foothills Parkway Section 8B Final Environmental Report, Volume 6, Appendix N,ORNL/M-5910/V6.Jul,1999,Oak Ridge:Oak Ridge National Laboratory
778. Boden, T.A., R.M. ushman, M.P. arrell, S.B. ones, D.P. aiser, P. anciruk, E.E. itchell, T.R. elson, and R.J. epanski,REPORT: Retrospective on CDIAC's Activities in U.S.-China Research on the Greenhouse Effect,ORNL/CP-101940.1999,Oak Ridge:Oak Ridge National Laboratory
779. Christensen, S.W., T.A. Boden, L.A. Hook, and M.-D. Cheng,REPORT: NARSTO Data Management Handbook,ORNL/CDIAC-112/R2.1999,
780. Cook, R.B.,REPORT: Report of Foreign Travel for R.B. Cook, April 19-21, 1999,101563.1999,
781. Curtis, P.S., R.M. Cushman, and A. Brenkert,REPORT: A Database of Woody Vegetation Responses to Elevated Atmospheric CO<sub>2</sub>,ORNL/CDIAC-120.1999,
782. Cushman, R.M., T.A. Boden, L.A. Hook, S.B. Jones, D.P. Kaiser, and T.R. Nelson,REPORT: Carbon Dioxide Information Analysis Center and World Data Center-A for Atmospheric Trace Gases,ORNL/CDIAC-116.1999,
783. Cusick, L.,REPORT: ER Program Quarterly NEPA Status Report & Plan Vol. 4, Period Ending March 15, 1993,ES/ER/INT-79/V4.1999,
784. Dole, L.R., J.O. Johnson, and D.M.W. Hetrick,REPORT: Migration of Activation Products from the Oak Ridge Spallation Neutron Source Facility Shield Berm on Chestnut Ridge on the Oak Ridge Reservation,ORNL/TM-1999/290.1999,
785. Easterling, D.R.,REPORT: United States Historical Climatology Network Daily Temperature and Precipitation Data (1871-1997),ORNL/CDIAC-118.1999,
786. Easterling, D.R., T.R. Karl, D.P. Kaiser, and L.J. Allison,REPORT: United States Historical Climatology Network Daily Temperature, Precipitation, and Snow Data for 1871-1997,ORNL/CDIAC-118, NDP-070.1999,
787. Gu, B., G.M. Brown, S.D. Alexandratos, R. Ober, and B. Patel,REPORT: Selective Anion Exchange Resins for the Removal of Perchlorate [(ClO<sub>4</sub>)(sup-)] from Groundwater,ORNL/TM-13753.1999,
788. Hahn, C.J., S.G. Warren, and D.P. Kaiser,REPORT: Extended Edited Synoptic Cloud Reports from Ships and Land Stations over the Globe, 1952-1996,ORNL/CDIAC-123.1999,
789. Huff, D.D., W.W. Hargrove, and R.L. Graham,REPORT: Adaptation of WRENSS-Fortran-77 for a GIS Application for Water-Yield Changes,ORNL/TM-13747.1999,
790. Jager, H.I., M. Kramer, and W.S. Overton,REPORT: Spatial Modeling of Landscape Pattern,ORNL/TM-1999/294.1999,
791. Jones, M.H., P.S. Curtis, R.M. Cushman, and A.L. Brenkert,REPORT: A Database of



- Herbaceous Vegetation Responses to Elevated Atmospheric CO<sub>2</sub>, ORNL/CDIAC-124.1999,
792. Kszos, L.A., M.J. Peterson, M.J. Ryon, and J.G. Smith, REPORT: Big Bayou Creek and Little Bayou Creek Watershed Monitoring Program, ORNL/TM-13650.1999,
793. Kszos, L.A., M.J. Peterson, M.G. Ryon, and G.R. Southworth, REPORT: Report on the Watershed Monitoring Program at the Paduach Site January-December 1998, ORNL/TM-13743.1999,
794. Liang, L., REPORT: Report of Foreign Travel for L. Liang, May 9-13, 1999, 104001.1999,
795. Lindberg, S.E., K. Roy, J.G. Owens, D.R. Reinhart, P. McCreanor, and J. Price, REPORT: PaMSWaD (Pathways of Mercury in Solid Waste Disposal): ORNL Sampling Operations Summary and Preliminary Data Report for PaMSWaD-1, Brevard County Landfill, R99-101832.1999,
796. Moline, G.R., REPORT: HRE-Pond Cryogenic Barrier Technology Demonstration: Pre- and Post-Barrier Hydrologic Assessment, ORNL/TM-13701.1999,
797. Parr, P.D., A.R. Medley, P.E. Cox, and R.J. Forbes, REPORT: Oak Ridge National Laboratory Land and Facilities Plan, ORNL/M-6714.1999,
798. Parr, P.D., J.D. Peebles, and D.L. Hudson, REPORT: Oak Ridge Reservation Management Plan, ORNL/M-6614.1999,
799. Parr, P.D., J.D. Peebles, and W.W. Teer, REPORT: Comprehensive Integrated Planning Process for the Oak Ridge Operations Sites, ORNL/M-6717.1999,
800. Quansheng, G., Z. Peiyuan, L. Xiuping, Z. Xueqing, C. Yuan, P. Guitang, Z. Jingyun, W.-C. Wang, R.M. Cushman, and M.D. Burtis, REPORT: Selected Translated Abstracts of Chinese-Language Climate Change Publications, ORNL/CDIAC-117.1999,
801. Scurlock, J.M.O., REPORT: Miscanthus: A Review of European Experience with a Novel Energy Crop, ORNL/TM-13732.1999,
802. Watson, D.B. and D.D. Huff, REPORT: Geologic and Hydrologic Description: Spallation Neutron Source Site, ORNL/ESD/LTR-001.1999,
803. Wullschleger, S.D., L.E. Gunter, C.T. Garten, and E.G. O'Neill, REPORT: Genetic Diversity, Carbon/Nitrogen Cycling, and Long-Term Sustainability of Yield in the Bioenergy Crop Switchgrass (*Panicum virgatum*), ORNL/M-6724.1999,

#### 2000 Books

804. Canadell, J., R.J. Norby, F. Cotrufo, and J. Nosberger, BOOK: *Litter Quality and Decomposition Under Elevated Atmospheric CO<sub>2</sub>*. 2000: Plant and Soil Special Issue, , USA.
805. Jones, J.B. and P.J. Mulholland, BOOK: *Streams and Ground Waters*. 2000: Academic Press.
806. Norby, R.J., R.B. Jackson, and A.H. Fitter, BOOK: *Root Dynamics and Global Change: An Ecosystem Perspective*. 2000: New Phytologist Trust, , USA.
807. Schlamadinger, B. and G. Marland, BOOK: *Land Use and Global Climate Change: Forests, Land Management, and the Kyoto Protocol*. 2000, Washington, D.C: Pew Center on Global Climate Change,

#### 2000 Book Sections

808. Adams, S.M., BOOK SECTION: *Assessing sources of stress to aquatic ecosystems using integrated biomarkers*, in *Biological Resource Management: Connecting Science and Policy*. 2000. p. 17-29.
809. Ainsworth, C.C., F.J. Brockman, and P.M. Jardine, BOOK SECTION: *Biogeochemical Considerations and Complexities*. 2000, U.S. Department of Energy.
810. Andres, R.J., G. Marland, T. Boden, and S. Bischof, BOOK SECTION: *Carbon Dioxide Emissions from Fossil Fuel Consumption and Cement Manufacture, 1751-1991; and an Estimate of Their Isotopic Composition and Latitudinal Distribution*. 2000, Cambridge University Press. p. 53-62.
811. Baldocchi, D.D. and J.S. Amthor, BOOK SECTION: *Canopy Photosynthesis: History,*

- Measurements, and Models*. 2000, Academic Press.
812. Burlage, R.S., BOOK SECTION: *Emerging Technologies: Bioreporters, Biosensors, Microprobes*. 2000, ASM Press.
813. Cada, G.F., BOOK SECTION: *Hydroelectric Power Production: Realizing the Benefits by Resolving Environmental Issues*. 2000, Pennsylvania Academy of Sciences.
814. Dale, V.H., A.W. King, L.K. Mann, and T.L. Ashwood, BOOK SECTION: *Contribution of spatial information and models to management of rare and declining species*, in *Spatial Information for Land Use Management*. 2000. p. 159-172.
815. Dale, V.H., D.T. Forest, and T.L. Ashwood, BOOK SECTION: *A Landscape-Transition Matrix Approach for Land Management*. 2000, Cambridge University Press.
816. Dale, V.H., BOOK SECTION: *Applying Ecological Guidelines for Land Management to Farming in the Brazilian Amazon*. 2000, Springer-Verlag: New York.
817. Efroymson, R.A., B.E. Sample, R.J. Luxmoore, L.W. Barnhouse, and F.B. Daniel, BOOK SECTION: *Ecological Risk Assessment Methods for Biosolids Application in Forests*. 2000, College of Forest Resources, University of Washington. p. 45-48.
818. Gu, B., G.M. Brown, S.D. Alexandratos, R. Ober, J.A. Dale, and S. Plant, BOOK SECTION: *Chapter 16. Efficient Treatment of Perchlorate (ClO<sub>4</sub>-) Contaminated Groundwater by Bifunctional Anion Exchange Resins*. 2000, Kluwer Academic/Plenum: New York. p. 165-176.
819. Hanson, P.J., D.E. Todd, D.W. Johnson, J.D. Joslin, and E.G. O'Neill, BOOK SECTION: *Responses of Eastern Deciduous Forests to Precipitation Change*. 2000, The University of Arizona Press: Tucson. p. 164-179.
820. Hanson, P.J., BOOK SECTION: *4.6 Large-Scale Water Manipulations*. 2000, Springer-Verlag: New York. p. 341-352.
821. Huston, M.A., G. McVicker, and J. Nielsen, BOOK SECTION: *A Functional Approach to Ecosystem Management: Implications for Species Diversity*. 2000, Elsevier Science Ltd.: Oxford.
822. Jacobs, G.K. and G.R. Hendrey, BOOK SECTION: *Chapter Four - Carbon Sequestration in Terrestrial Ecosystems in U.S. DOE*. 2000, US Department of Energy: Washington, DC.
823. Jardine, P.M., G.V. Wilson, R.J. Luxmoore, and J.P. Gow, BOOK SECTION: *Characterization and Monitoring of Vadose Zone Flow and Transport Processes in Structured Media*. 2000, U.S. Department of Energy. p. 829-947.
824. Johnson, D.W., R.J. Norby, and B.A. Hungate, BOOK SECTION: *Effects of Elevated CO<sub>2</sub> on Nutrient Cycling in Forests*. 2000, CABI.
825. Karnosky, D.F., B. Gielen, R. Ceulmans, W.H. Schlesinger, R.J. Norby, E. Oksanen, R. Matyssek, and G.R. Hendrey, BOOK SECTION: *FACE Systems for Studying the Impacts of Greenhouse Gases on Forest Ecosystems*. 2000, CAB International.
826. Marland, G., BOOK SECTION: *The Future Role of Reforestation in Reducing Buildup of Atmospheric CO<sub>2</sub>(Sub 2)*. 2000, Cambridge University Press. p. 190-198.
827. Mulholland, P.J., BOOK SECTION: *Large Scale Patterns in Dissolved Organic Carbon Concentration, Flux, and Sources*. 2000, Academic Press. p. 139-159.
828. Mulholland, P.J. and D.L. DeAngelis, BOOK SECTION: *Effect of Surface/Subsurface Exchange on Nutrient Spiraling in Streams*. 2000, Academic Press: San Diego. p. 149-166.
829. Mulholland, P.J. and D.L. DeAngelis, BOOK SECTION: *Surface-Subsurface Exchange and Nutrient Spiraling*. 2000, Academic Press, San Diego. p. 149-166.
830. O'Neill, R.V., BOOK SECTION: *Ecosystems on the Landscape: The Role of Space in Ecosystem Theory*. 2000, Lewis Publisher. p. 447-463.
831. O'Neill, R.V., BOOK SECTION: *Hierarchy Theory*. 2000, Springer-Verlag.
832. Pinkart, H.C., D.B. Ringelberg, Y.M. Piceno, S.J. Macnaughton, and D.C. White, BOOK SECTION: *Biochemical Approaches to Biomass Measurements and Community Structure Analysis*. 2000.
833. Rustad, L.E. and R.J. Norby, BOOK SECTION: *Effects of Increased Temperature on Terrestrial Ecosystems: Theoretical Considerations and Experimental Evidence of Effects*.

2000, Wiley.

834. Zinn, M., R.C. Zimmerman, and D.C. White, BOOK SECTION: *Environmentally Acceptable Control of Microbial Biofilms*. 2000.

#### 2000 Electronic Source

835. Parr, P.D., ELECTRONIC SOURCE: Web document: *Biodiversity of the Oak Ridge Reservation*. 2000, Oak Ridge National Laboratory

#### 2000 Journal Articles

836. Adams, S.M. and M.S. Greeley, Water, Air, Soil Pollut. ARTICLE: *Ecotoxicological Indicators of Water Quality: Using Multi-response Indicators to Assess the Health of Aquatic Ecosystems*. Water, Air, Soil Pollut., 2000. **123**(1-4): p. 103-115.
837. Adams, S.M., M.S. Greeley, and M.G. Ryon, Human and Ecological Risk Assessment ARTICLE: *Evaluating effects of contaminants on fish health at multiple levels of biological organization: Extrapolating from lower to higher levels*. Human and Ecological Risk Assessment, 2000. **6**(1): p. 15-27.
838. Amthor, J.S., Ann. Bot. ARTICLE: *The McCree-de Wit-Penning de Vries-Thornley respiration paradigms: 30 years later*. Ann. Bot., 2000. **86**(1): p. 1-20.
839. Amthor, J.S., Tree Physiol. ARTICLE: *Direct effect of elevated CO<sub>2</sub> on nocturnal in situ leaf respiration in nine temperate deciduous tree species is small*. Tree Physiol., 2000. **20**(2): p. 139-144.
840. Barnett, M.O., P.M. Jardine, S.C. Brooks, and H.M. Selim, Soil Sci. Soc. Am. J. ARTICLE: *Adsorption and transport of uranium(VI) in subsurface media*. Soil Sci. Soc. Am. J., 2000. **64**(3): p. 908-917.
841. Becker, P., F.C. Meinzer, and S.D. Wullschleger, Funct. Ecol. ARTICLE: *Hydraulic limitation of tree height: a critique*. Funct. Ecol., 2000. **14**(1): p. 4-11.
842. Carter, G.A., R. Bahadur, and R.J. Norby, Environ. Exp. Bot. ARTICLE: *Effects of elevated atmospheric CO<sub>2</sub> and temperature on leaf optical properties in Acer saccharum*. Environ. Exp. Bot., 2000. **43**(3): p. 267-273.
843. Chen, L.J., M.W. Berry, and W.W. Hargrove, Int. J. Imaging Syst. Technol. ARTICLE: *Using dendronal signatures for feature extraction and retrieval*. Int. J. Imaging Syst. Technol., 2000. **11**(4): p. 243-253.
844. Cheng, M.D., Fuel Process. Technol. ARTICLE: *Real-time measurement of trace metals on fine particles by laser-induced plasma techniques*. Fuel Process. Technol., 2000. **65**: p. 219-229.
845. Cheng, M.D. and W.H. Schroeder, J. Atmos. Chem. ARTICLE: *Potential atmospheric transport pathways for mercury measured in the Canadian high arctic*. J. Atmos. Chem., 2000. **35**(1): p. 101-107.
846. Cooper, L.W., I.L. Larsen, T.M. O'Hara, S. Dolvin, V. Woshner, and G.F. Cota, Arctic ARTICLE: *Radionuclide contaminant burdens in Arctic marine mammals harvested during subsistence hunting*. Arctic, 2000. **53**(2): p. 174-182.
847. Cooper, L.W., J.M. Kelley, L.A. Bond, K.A. Orlandini, and J.M. Grebmeier, Mar. Chem. ARTICLE: *Sources of the transuranic elements plutonium and neptunium in arctic marine sediments*. Mar. Chem., 2000. **69**(3-4): p. 253-276.
848. Coutant, C.C. and R.R. Whitney, Trans. Am. Fish. Soc. ARTICLE: *Fish behavior in relation to passage through hydropower turbines: A review*. Trans. Am. Fish. Soc., 2000. **129**(2): p. 351-380.
849. Curlee, T.R. and K.L. Yuracko, Environ. Prog. ARTICLE: *The use of life cycle analysis within the US. Department of Energy*. Environ. Prog., 2000. **19**(2): p. 117-123.
850. Dahlman, R.C. and G.K. Jacobs, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Research challenges*

- for carbon sequestration in terrestrial ecosystems. Abstr. Pap. Am. Chem. Soc., 2000. **220**: p. U395-U395.
851. Dale, V.H., L.A. Joyce, S. McNulty, and R.P. Neilson, Sci. Total Environ. ARTICLE: *The interplay between climate change, forests, and disturbances*. Sci. Total Environ., 2000. **262**(3): p. 201-204.
852. Dale, V.H., S. Brown, R.A. Haeuber, N.T. Hobbs, N. Huntly, R.J. Naiman, W.E. Riebsame, M.G. Turner, and T.J. Valone, Ecol. Appl. ARTICLE: *Ecological principles and guidelines for managing the use of land*. Ecol. Appl., 2000. **10**(3): p. 639-670.
853. Dale, V.H. and R.A. Haeuber, Ecol. Appl. ARTICLE: *Perspectives on land use*. Ecol. Appl., 2000. **10**(3): p. 671-672.
854. Doll, W.E., J.E. Nyquist, L.P. Beard, and T.J. Gamey, Geophysics ARTICLE: *Airborne geophysical surveying for hazardous waste site characterization on the Oak Ridge Reservation, Tennessee*. Geophysics, 2000. **65**(5): p. 1372-1387.
855. Garten, C.T., Water, Air, Soil Pollut. ARTICLE: *Nitrogen saturation and soil N availability in a high-elevation spruce and fir forest*. Water, Air, Soil Pollut., 2000. **120**(3-4): p. 295-313.
856. Garten, C.T., L.W. Cooper, W.M. Post, and P.J. Hanson, Ecology ARTICLE: *Climate controls on forest soil C isotope ratios in the Southern Appalachian Mountains*. Ecology, 2000. **81**(4): p. 1108-1119.
857. Garten, C.T. and S.D. Wulschleger, J. Environ. Qual. ARTICLE: *Soil carbon dynamics beneath switchgrass as indicated by stable isotope analysis*. J. Environ. Qual., 2000. **29**(2): p. 645-653.
858. Garten, C.T., D.M. Hamby, and R.G. Schreckhise, Sci. Total Environ. ARTICLE: *Radiocesium discharges and subsequent environmental transport at the major US weapons production facilities*. Sci. Total Environ., 2000. **255**(1-3): p. 55-73.
859. Graham, R.L., B.C. English, and C.E. Noon, Biomass Bioenerg. ARTICLE: *A Geographic Information System-based modeling system for evaluating the cost of delivered energy crop feedstock*. Biomass Bioenerg., 2000. **18**(4): p. 309-329.
860. Gu, B., G.M. Brown, P.V. Bonnesen, L. Liang, B.A. Moyer, R. Ober, and S.D. Alexandratos, Environ. Sci. Technol. ARTICLE: *Development of novel bifunctional anion-exchange resins with improved selectivity for pertechnetate sorption from contaminated groundwater*. Environ. Sci. Technol., 2000. **34**(6): p. 1075-1080.
861. Gunderson, C.A., R.J. Norby, and S.D. Wulschleger, Tree Physiol. ARTICLE: *Acclimation of photosynthesis and respiration to simulated climatic warming in northern and southern populations of Acer saccharum: laboratory and field evidence*. Tree Physiol., 2000. **20**(2): p. 87-96.
862. Gunter, L.E., G.A. Tuskan, C.A. Gunderson, and R.J. Norby, Glob. Change Biol. ARTICLE: *Genetic variation and spatial structure in sugar maple (Acer saccharum Marsh.) and implications for predicted global-scale environmental change*. Glob. Change Biol., 2000. **6**(3): p. 335-344.
863. Gustavsson, L., T. Karjalainen, G. Marland, I. Savolainen, B. Schlamadinger, and M. Apps, Energy Policy ARTICLE: *Project-based greenhouse-gas accounting: guiding principles with a focus on baselines and additionality*. Energy Policy, 2000. **28**(13): p. 935-946.
864. Gustin, M.S., S.E. Lindberg, K. Austin, M. Coolbaugh, A. Vette, and H. Zhang, Sci. Total Environ. ARTICLE: *Assessing the contribution of natural sources to regional atmospheric mercury budgets*. Sci. Total Environ., 2000. **259**(1-3): p. 61-71.
865. Gustin, M.S. and S.E. Lindberg, Fresenius J. Anal. Chem. ARTICLE: *Assessing the contribution of natural sources to the global mercury cycle: The importance of intercomparing dynamic flux measurements*. Fresenius J. Anal. Chem., 2000. **366**(5): p. 417-422.
866. Hanson, P.J., N.T. Edwards, C.T. Garten, and J.A. Andrews, Biogeochemistry ARTICLE: *Separating root and soil microbial contributions to soil respiration: A review of methods and observations*. Biogeochemistry, 2000. **48**(1): p. 115-146.
867. Hanson, P.J. and J.F. Weltzin, Sci. Total Environ. ARTICLE: *Drought disturbance from climate*

- change: response of United States forests. Sci. Total Environ.*, 2000. **262**(3): p. 205-220.
868. Hargrove, W.W., R.H. Gardner, M.G. Turner, W.H. Romme, and D.G. Despain, *Ecol. Model.* ARTICLE: *Simulating fire patterns in heterogeneous landscapes. Ecol. Model.*, 2000. **135**(2-3): p. 243-263.
869. Hill, W.R., A.T. Bednarek, and I.L. Larsen, *Can. J. Fish. Aquat. Sci.* ARTICLE: *Cadmium sorption and toxicity in autotrophic biofilms. Can. J. Fish. Aquat. Sci.*, 2000. **57**(3): p. 530-537.
870. Huff, D.D., *Environ. Geol.* ARTICLE: *A 35-year history of Sr-90 releases from a radioactive-waste burial ground. Environ. Geol.*, 2000. **39**(11): p. 1275-1285.
871. Jager, H.I., W.W. Hargrove, C.C. Brandt, A.W. King, R.J. Olson, J.M.O. Scurlock, and K.W. Rose, *Ecosystems* ARTICLE: *Constructive contrasts between modeled and measured climate responses over a regional scale. Ecosystems*, 2000. **3**(4): p. 396-411.
872. Johnson, D.W., R.B. Susfalk, H.L. Gholz, and P.J. Hanson, *J. Hydrol.* ARTICLE: *Simulated effects of temperature and precipitation change in several forest ecosystems. J. Hydrol.*, 2000. **235**(3-4): p. 183-204.
873. Jones, D.W., K.S. Redus, and D.J. Bjornstad, *Environ. Model. Assess.* ARTICLE: *The consequences of alternative environmental management goals: A non-linear programming analysis of nuclear weapons legacy clean-up at Oak Ridge National Laboratory. Environ. Model. Assess.*, 2000. **5**(1): p. 1-17.
874. Jones, D.S., *Hum. Ecol. Risk Assess.* ARTICLE: *Radiological benchmarks for effects on aquatic biota at the Oak Ridge reservation. Hum. Ecol. Risk Assess.*, 2000. **6**(5): p. 789-807.
875. Joslin, J.D., M.H. Wolfe, and P.J. Hanson, *New Phytol.* ARTICLE: *Effects of altered water regimes on forest root systems. New Phytol.*, 2000. **147**(1): p. 117-129.
876. Kaiser, D.P., *Geophys. Res. Lett.* ARTICLE: *Decreasing cloudiness over China: An updated analysis examining additional variables. Geophys. Res. Lett.*, 2000. **27**(15): p. 2193-2196.
877. Kheshgi, H.S., R.C. Prince, and G. Marland, *Annu. Rev. Energ. Environ.* ARTICLE: *The potential of biomass fuels in the context of global climate change: Focus on transportation fuels. Annu. Rev. Energ. Environ.*, 2000. **25**: p. 199-244.
878. Korte, N.E., J.L. Zutman, R.M. Schlosser, L. Liang, B. Gu, and Q. Fernando, *Waste Manage.* ARTICLE: *Field application of palladized iron for the dechlorination of trichloroethene. Waste Manage.*, 2000. **20**(8): p. 687-694.
879. Korte, N., P.M. Kearl, R.L. Siegrist, M.T. Muck, and R.M. Schlosser, *Ground Water Monit. Remediat.* ARTICLE: *An evaluation of horizontal recirculation using single-well tests, pumping tests, tracer tests, and the colloidal borescope. Ground Water Monit. Remediat.*, 2000. **20**(1): p. 78-85.
880. Korte, N. and S.M. Adams, *Hum. Ecol. Risk Assess.* ARTICLE: *Measurements of suborganism level responses are needed to delineate selenium's role in the decline of western native fishes. Hum. Ecol. Risk Assess.*, 2000. **6**(6): p. 1139-1140.
881. Lindberg, S.E. and H. Zhang, *Sci. Total Environ.* ARTICLE: *Air/water exchange of mercury in the Everglades II: measuring and modeling evasion of mercury from surface waters in the Everglades Nutrient Removal Project. Sci. Total Environ.*, 2000. **259**(1-3): p. 135-143.
882. Lindberg, S.E., W.J. Stratton, P. Pai, and M.A. Allan, *Fuel Process. Technol.* ARTICLE: *Measurements and modeling of a water soluble gas-phase mercury species in ambient air. Fuel Process. Technol.*, 2000. **65**: p. 143-156.
883. Lindberg, S.E., A.F. Vette, C. Miles, and F. Schaedlich, *Biogeochemistry* ARTICLE: *Mercury speciation in natural waters: Measurement of dissolved gaseous mercury with a field analyzer. Biogeochemistry*, 2000. **48**(2): p. 237-259.
884. Luxmoore, R.J., W.W. Hargrove, M.L. Tharp, W.M. Post, M.W. Berry, K.S. Minser, W.P. Cropper, D.W. Johnson, B. Zeide, R.L. Amateis, H.E. Burkhart, V.C. Baldwin, and K.D. Peterson, *Environ. Model. Assess.* ARTICLE: *Signal-transfer modeling for regional assessment of forest responses to environmental changes in the southeastern United States. Environ. Model. Assess.*, 2000. **5**(2): p. 125-137.
885. Marland, G., B. Schlamadinger, and R. Matthews, *Science* ARTICLE: *"Kyoto forests" and a*

- broader perspective on management*. Science, 2000. **290**(5498): p. 1895-1896.
886. Martin, M. and M.D. Cheng, Appl. Spectrosc. ARTICLE: *Detection of chromium aerosol using time-resolved laser-induced plasma spectroscopy*. Appl. Spectrosc., 2000. **54**(9): p. 1279-1285.
887. Mayes, M.A., P.M. Jardine, I.L. Larsen, S.C. Brooks, and S.E. Fendorf, J. Contam. Hydrol. ARTICLE: *Multispecies transport of metal-EDTA complexes and chromate through undisturbed columns of weathered fractured saprolite*. J. Contam. Hydrol., 2000. **45**(3-4): p. 243-265.
888. Mazumder, R., H.C. Pinkart, P.S. Alban, T.J. Phelps, and R.E. Benoit, Curr. Microbiol. ARTICLE: *Low-substrate regulated microaerophilic behavior as a stress response of aquatic and soil bacteria*. Curr. Microbiol., 2000. **41**(2): p. 79-83.
889. McCarthy, J.F., K.M. Howard, and L.D. McKay, J. Environ. Qual. ARTICLE: *Effect of pH on sorption and transport of fluorobenzoic acid ground water tracers*. J. Environ. Qual., 2000. **29**(6): p. 1806-1813.
890. McCarthy, J.F., G.R. Southworth, K.D. Ham, and J.A. Palmer, Environ. Toxicol. Chem. ARTICLE: *Time-integrated, flux-based monitoring using semipermeable membrane devices to estimate the contribution of industrial facilities to regional polychlorinated biphenyl budgets*. Environ. Toxicol. Chem., 2000. **19**(2): p. 352-359.
891. McNamara, A.R. and W.R. Hill, Freshwat. Biol. ARTICLE: *UV-B irradiance gradient affects photosynthesis and pigments but not food quality of periphyton*. Freshwat. Biol., 2000. **4**: p. 649-662.
892. Mulholland, P.J., J.L. Tank, D.M. Sanzone, W.M. Wollheim, B.J. Peterson, J.R. Webster, and J.L. Meyer, Ecol. Monogr. ARTICLE: *Nitrogen cycling in a forest stream determined by a N-15 tracer addition*. Ecol. Monogr., 2000. **70**(3): p. 471-493.
893. Mulholland, P.J., J.L. Tank, D.M. Sanzone, W.M. Wollheim, B.J. Peterson, J.R. Webster, and J.L. Meyer, J. N. Am. Benthol. Soc. ARTICLE: *Food resources of stream macroinvertebrates determined by natural-abundance stable C and N isotopes and a N-15 tracer addition*. J. N. Am. Benthol. Soc., 2000. **19**(1): p. 145-157.
894. Munro, J.F. and K.A. Tzoumis, Public Works Manage. Policy ARTICLE: *Conquering the brownfields frontier through the enhanced deployment of environmental assessment technologies*. Public Works Manage. Policy, 2000. **3**: p. 213-223.
895. Nicholson, D.M.C., P.A. Sterne, J.C. Swihart, J. Tran, and Y. Wang, Model. Simul. Mater. Sci. Eng. ARTICLE: *Electron and positron states in amorphous Ni<sub>0.4</sub>Pd<sub>0.4</sub>P<sub>0.2</sub>*. Model. Simul. Mater. Sci. Eng., 2000. **8**(3): p. 261-268.
896. Norby, R.J., T.M. Long, J.S. Hartz-Rubin, and E.G. O'Neill, Plant Soil ARTICLE: *Nitrogen resorption in senescing tree leaves in a warmer, CO<sub>2</sub>-enriched atmosphere*. Plant Soil, 2000. **224**(1): p. 15-29.
897. Norby, R.J. and R.B. Jackson, New Phytol. ARTICLE: *Root dynamics and global change: seeking an ecosystem perspective*. New Phytol., 2000. **147**(1): p. 3-12.
898. Norby, R.J., Ecol. Appl. ARTICLE: *Atmospheric CO<sub>2</sub> and ecosystem feedback between C and N cycles: Synthesis of an integrated experiment*. Ecol. Appl., 2000. **10**(1): p. 1-2.
899. Osborne, T.H., J.R. Ferron, R.J. Groebner, L.L. Lao, A.W. Leonard, M.A. Mahdavi, R. Maingi, R.L. Miller, A.D. Turnbull, M. Wade, and J. Watkins, Plasma Phys. Control. Fusion ARTICLE: *The effect of plasma shape on H-mode pedestal characteristics on DIII-D*. Plasma Phys. Control. Fusion, 2000. **42**: p. A175-A184.
900. Paez, A., G.M. Gebre, M.E. Gonzalez, and T.J. Tschaplinski, Environ. Exp. Bot. ARTICLE: *Growth, soluble carbohydrates, and aloin concentration of Aloe vera plants exposed to three irradiance levels*. Environ. Exp. Bot., 2000. **44**(2): p. 133-139.
901. Parr, P.D., L.K. Mann, and B. Bowen, Tenn. Conservationist ARTICLE: *Uncommon ground: the Oak Ridge Reservation*. Tenn. Conservationist, 2000. **LXVI**(5): p. 4-7.
902. Peles, J.D., A.L. Bryan, C.T. Garten, D.O. Ribble, and M.H. Smith, Sci. Total Environ. ARTICLE: *Ecological half-life of Cs-137 in fish from a stream contaminated by nuclear reactor effluents*. Sci. Total Environ., 2000. **263**(1-3): p. 255-262.

903. Peppler, R.A., C.P. Bahrmann, J.C. Barnard, J.R. Campbell, M.D. Cheng, R.A. Ferrare, R.N. Halthore, L.A. Heilman, D.L. Hlavka, N.S. Laulainen, C.J. Lin, J.A. Ogren, M.R. Poellot, L.A. Remer, K. Sassen, J.D. Spinhirne, M.E. Splitt, and D.D. Turner, Bull. Amer. Meteorol. Soc. ARTICLE: *ARM Southern Great Plains site observations of the smoke pall associated with the 1998 Central American fires*. Bull. Amer. Meteorol. Soc., 2000. **81**(11): p. 2563-2591.
904. Phillips, D.H., B. Gu, D.B. Watson, Y. Roh, L. Liang, and S.Y. Lee, Environ. Sci. Technol. ARTICLE: *Performance evaluation of a zerovalent iron reactive barrier: Mineralogical characteristics*. Environ. Sci. Technol., 2000. **34**(19): p. 4169-4176.
905. Rea, A.W., S.E. Lindberg, and G.J. Keeler, Environ. Sci. Technol. ARTICLE: *Assessment of dry deposition and foliar leaching of mercury and selected trace elements based on washed foliar and surrogate surfaces*. Environ. Sci. Technol., 2000. **34**(12): p. 2418-2425.
906. Ripp, S., D.E. Nivens, Y. Ahn, C. Werner, J. Jarrell, J.P. Easter, C.D. Cox, R.S. Burlage, and G.S. Saylor, Environ. Sci. Technol. ARTICLE: *Controlled field release of a bioluminescent genetically engineered microorganism for bioremediation process monitoring and control*. Environ. Sci. Technol., 2000. **34**(5): p. 846-853.
907. Roh, Y., S.Y. Lee, and M.P. Elless, Environ. Geol. ARTICLE: *Characterization of corrosion products in the permeable reactive barriers*. Environ. Geol., 2000. **40**(1/2): p. 184-194.
908. Roh, Y., N.T. Edwards, S.Y. Lee, C.A. Stiles, S. Armes, and J.E. Foss, J. Environ. Qual. ARTICLE: *Thermal-treated soil for mercury removal: Soil and phytotoxicity tests*. J. Environ. Qual., 2000. **29**(2): p. 415-424.
909. Roh, Y., S.R. Lee, S.K. Choi, M.P. Elless, and S.Y. Lee, Soil. Sediment. Contam. ARTICLE: *Physicochemical and mineralogical characterization of uranium-contaminated soils*. Soil. Sediment. Contam., 2000. **9**(5): p. 463-486.
910. Roh, Y., S.Y. Lee, M.P. Elless, and K.S. Cho, J. Environ. Sci. Health Part A-Toxic/Hazard. Subst. Environ. Eng. ARTICLE: *Electro-enhanced remediation of radionuclide-contaminated groundwater using zero-valent iron*. J. Environ. Sci. Health Part A-Toxic/Hazard. Subst. Environ. Eng., 2000. **35**(7): p. 1043-1059.
911. Roh, Y., S.Y. Lee, M.P. Elless, and H.S. Moon, J. Environ. Sci. Health Part A-Toxic/Hazard. Subst. Environ. Eng. ARTICLE: *Electro-enhanced remediation of trichloroethene-contaminated groundwater using zero-valent iron*. J. Environ. Sci. Health Part A-Toxic/Hazard. Subst. Environ. Eng., 2000. **35**(7): p. 1061-1076.
912. Roh, Y., S.Y. Lee, M.P. Elless, and J.E. Foss, Clay Clay Min. ARTICLE: *Incorporation of radioactive contaminants into pyroaurite-like phases by electrochemical synthesis*. Clay Clay Min., 2000. **48**(2): p. 266-271.
913. Rosemond, A.D., P.J. Mulholland, and S.H. Brawley, Can. J. Fish. Aquat. Sci. ARTICLE: *Seasonally shifting limitation of stream periphyton: response of algal populations and assemblage biomass and productivity to variation in light, nutrients, and herbivores*. Can. J. Fish. Aquat. Sci., 2000. **57**(1): p. 66-75.
914. Ryon, M.G., J.J. Beauchamp, W.K. Roy, E. Schilling, B.A. Carrico, and R.L. Hinzman, Transactions of the American Fisheries Society ARTICLE: *Stream dispersal of dead fish and survey effectiveness in a simulated fish kill*. Transactions of the American Fisheries Society, 2000. **129**(1): p. 89-100.
915. Smith, J.G. and J.J. Beauchamp, Environ. Monit. Assess. ARTICLE: *Evaluation of caging designs and a fingernail clam for use in an in situ bioassay*. Environ. Monit. Assess., 2000. **62**(2): p. 205-230.
916. Solomon, B.D. and R. Lee, Environment ARTICLE: *Emissions trading systems and environmental justice*. Environment, 2000. **42**(8): p. 32-45.
917. Sorensen, J.H., Nat. Hazards Rev. ARTICLE: *Hazard warning systems: review of 20 years of progress*. Nat. Hazards Rev., 2000. **2**: p. 119-125.
918. Southworth, G.R., R.R. Turner, M.J. Peterson, M.A. Bogle, and M.G. Ryon, Environ. Monit. Assess. ARTICLE: *Response of mercury contamination in fish to decreased aqueous concentrations and loading of inorganic mercury in a small stream*. Environ. Monit. Assess.,

2000. **63**(3): p. 481-494.
919. Southworth, G.R., M.J. Peterson, and M.G. Ryon, Chemosphere ARTICLE: *Long-term increased bioaccumulation of mercury in largemouth bass follows reduction of waterborne selenium*. Chemosphere, 2000. **41**(7): p. 1101-1105.
920. Spalding, B.P., Environ. Sci. Technol. ARTICLE: *Volatility and extractability of strontium-85, cesium-134, cobalt-57, and uranium after heating hardened Portland cement paste*. Environ. Sci. Technol., 2000. **34**(23): p. 5051-5058.
921. Stoms, D.M. and W.W. Hargrove, nt. J. Remote Sens. ARTICLE: *Potential NDVI as a baseline for monitoring ecosystem functioning*. nt. J. Remote Sens., 2000. **21**(2): p. 401-407.
922. Tank, J.L., J.L. Meyer, D.M. Sanzone, P.J. Mulholland, J.R. Webster, B.J. Peterson, W.M. Wollheim, and N.E. Leonard, Limnol. Oceanogr. ARTICLE: *Analysis of nitrogen cycling in a forest stream during autumn using a N-15-tracer addition*. Limnol. Oceanogr., 2000. **45**(5): p. 1013-1029.
923. Thompson, D.K., C.D. Deal, C.A. Ison, J.M. Zenilman, and M.C. Bash, J. Infect. Dis. ARTICLE: *A Typing System for Neisseria gonorrhoeae Based on Biotinylated Oligonucleotide Probes to PIB Gene Variable Regions*. J. Infect. Dis., 2000. **181**(5): p. 1652-1660.
924. Tonn, B.E., Environ. Practice ARTICLE: *Environmental decision making in the face of uncertainty*. Environ. Practice, 2000. **2**: p. 188-202.
925. Ujjalussy, B., J.S. Faulkner, N.Y. Moghadam, G.M. Stocks, and Y. Wang, Phys. Rev. B ARTICLE: *Calculating properties with the polymorphous coherent-potential approximation*. Phys. Rev. B, 2000. **61**(18): p. 12005-12016.
926. Urbansky, E.T., M.L. Magnuson, C.A. Kelty, B. Gu, and G.M. Brown, Environ. Sci. Technol. ARTICLE: *Comment on "Perchlorate identification in fertilizers" and the subsequent addition/correction*. Environ. Sci. Technol., 2000. **34**(20): p. 4452-4453.
927. Wallschlager, D., H.H. Kock, W.H. Schroeder, S.E. Lindberg, R. Ebinghaus, and R.D. Wilken, Atmos. Environ. ARTICLE: *Mechanism and significance of mercury volatilization from contaminated floodplains of the German river Elbe*. Atmos. Environ., 2000. **34**(22): p. 3745-3755.
928. Walsh, M.E., Biomass & Bioenergy ARTICLE: *Method to estimate bioenergy crop feedstock supply curves*. Biomass & Bioenergy, 2000. **18**(4): p. 283-289.
929. Williams, R.S., R.J. Norby, and D.E. Lincoln, Glob. Change Biol. ARTICLE: *Effects of elevated CO<sub>2</sub> and temperature-grown red and sugar maple on gypsy moth performance*. Glob. Change Biol., 2000. **6**(6): p. 685-695.
930. Wilson, K.B., D.D. Baldocchi, and P.J. Hanson, Tree Physiol. ARTICLE: *Quantifying stomatal and non-stomatal limitations to carbon assimilation resulting from leaf aging and drought in mature deciduous tree species*. Tree Physiol., 2000. **20**(12): p. 787-797.
931. Wilson, K.B., D.D. Baldocchi, and P.J. Hanson, Tree Physiol. ARTICLE: *Spatial and seasonal variability of photosynthetic parameters and their relationship to leaf nitrogen in a deciduous forest*. Tree Physiol., 2000. **20**(9): p. 565-578.
932. Wilson, K.B., P.J. Hanson, and D.D. Baldocchi, Agric. For. Meteorol. ARTICLE: *Factors controlling evaporation and energy partitioning beneath a deciduous forest over an annual cycle*. Agric. For. Meteorol., 2000. **102**(2-3): p. 83-103.
933. Wullschleger, S.D., K.B. Wilson, and P.J. Hanson, Agric. For. Meteorol. ARTICLE: *Environmental control of whole-plant transpiration, canopy conductance and estimates of the decoupling coefficient for large red maple trees*. Agric. For. Meteorol., 2000. **104**(2): p. 157-168.
934. Wullschleger, S.D. and A.W. King, Tree Physiol. ARTICLE: *Radial variation in sap velocity as a function of stem diameter and sapwood thickness in yellow-poplar trees*. Tree Physiol., 2000. **20**(8): p. 511-518.
935. Zhang, H. and S.E. Lindberg, Sci. Total Environ. ARTICLE: *Air/water exchange of mercury in the Everglades I: the behavior of dissolved gaseous mercury in the Everglades Nutrient Removal Project*. Sci. Total Environ., 2000. **259**(1-3): p. 123-133.



936. Zhou, J.Z. and A.V. Palumbo, *Genetica* ARTICLE: *Sequence to function: The 7th conference on Small Genomes*. *Genetica*, 2000. **108**(1): p. vii-IX.

## 2000 Reports

937. Cheng, M.-D., T. Wainman, and J. Storey, REPORT: Impacts of Venturi Turbulent Mixing on the Size Distributions of Sodium Chloride and Dioctyl-Phthalate Aerosols, ORNL/TM-2000/181.2000,
938. Cushman, R.M., REPORT: Publications, Presentations, and Awards, ORNL/CDIAC-101/R1.2000,
939. Cushman, R.M., T.A. Boden, L.A. Hook, S.B. Jones, D.P. Kaiser, T.R. Nelson, and M.D. Burtis, REPORT: Carbon Dioxide Information Analysis Center and World Data Center for Atmospheric Trace Gases Fiscal Year 1999 Annual Report, ORNL/CDIAC-126.2000,
940. Cushman, R.M., S.G. Hildebrand, and R.W. Brocksen, REPORT: The Potential Impacts on Aquatic Ecosystems from the Release of Trace Elements in Geothermal Fluids, ORNL/TM-6057.2000,
941. Efroymson, R.A., W.H. Rose, S. Nearth, and G.W. Suter, II, REPORT: Ecological Risk Assessment Framework for Low-Altitude Overflights by Fixed-Wing and Rotary-Wing Military Aircraft, ORNL/TM-2000/289.2000,
942. Garten, C.T. and T.L. Ashwood, REPORT: Landscape Based Modeling of Nonpoint Source Nitrogen Loading in the Neuse River Basin, North Carolina, ORNL/TM-2000/282.2000,
943. Gebre, G.M. and T.J. Tschaplinski, REPORT: Role of Osmotic Adjustment in Plant Productivity, ORNL/TM-2000/6.2000,
944. Jones, M.H., P.S. Curtis, and R.M. Cushman, REPORT: Bibliography on CO2 Effects on Vegetation and Ecosystems: 1990-1999 Literature, ORNL/CDIAC-129.2000,
945. Korte, N.E., REPORT: Selenium Poisoning of Wildlife and Western Agriculture: Cause and Effect, ORNL/TM-2000/58.2000,
946. Kozyr, A., A.G. Dickson, P.R. Deeling, P.R. Guenther, and L.L. Bullister, REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the R/V John V. Vickers Cruise in the Pacific Ocean (WOCE Section P13, NOAA CGC92 Cruise, August 4 - October 21, 1992), ORNL/CDIAC-128.2000,
947. Kszos, L.A., M.E. Downing, L.L. Wright, J.H. Cushman, S.B. McLaughlin, V.R. Tolbert, G.A. Tuskan, and M.E. Walsh, REPORT: Bioenergy Feedstock Development Program Status Report, ORNL/TM-2000/292.2000,
948. Millero, F.J., D.M. Campbell, G. Parrilla, L.J. Allison, and A. Kozyr, REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the R/V Hesperides Cruise in the Atlantic Ocean, ORNL/CDIAC-125.2000,
949. Parr, P.D., A.R. Medley, P.E. Cox, and R.J. Forbes, REPORT: ORNL Land and Facilities Plan, ORNL/TM-2000/237.2000,
950. Peelle, E., REPORT: Biomass Stakeholder Views and Concerns: Environmental Groups and Some Trade Associations, ORNL/TM-1999/271. Jan, 2000, Oak Ridge: Oak Ridge National Laboratory
951. Ryon, M.G., A.J. Stewart, W.K. Roy, J.G. Smith, and N.E. Korte, REPORT: Habitat, Water Quality, and Aquatic Community Assessment of Indian Creek and Blue River at the U.S. Department of Energy's Kansas City Plant, ORNL/TM-2000/79.2000,
952. Scurlock, J.M., D.C. Dayton, and B. Hames, REPORT: Bamboo: An Overlooked Biomass Resource?, ORNL/TM-1999/264.2000,
953. Siegrist, R.L., D.R. Smuin, N.E. Korte, D.W. Greene, D.A. Pickering, K.S. Lowe, and J.M. Strong-Gunderson, REPORT: Permeation Dispersal of Treatment Agents for In Situ Remediation in Low Permeability Media: 1. Field Studies in Unconfined Tests Cells, ORNL/TM-13596.2000,
954. Spalding, B.P. and L.C. Farrar, REPORT: Bottoms-Up In-Situ Vitrification of Hard-to-Treat

- Buried Mixed Wastes,C/ORNL99-0543.2000,
955. Watson, D.B. and H.D. Quarles,REPORT: Site Specific Health and Safety Plan for Work Activities at the Natural and Accelerated Bioremediation Research (NABIR) Field Research Center (FRC), Oak Ridge, Tennessee,ORNL/TM-2000/264.2000,
956. Wright, L.L. and L. Christersson,REPORT: Short-Rotation Crops for Bioenergy: Proceedings of IEA, Bioenergy, Task 17 Meeting in Auburn, Alabama, USA, September 6-9, 1999,ORNL/TM-2000/311.2000,

#### 2001 Books

957. Coutant, C.C., BOOK: *Behavioral Technologies for Fish Guidance: Proceedings of the Symposium Behavioral Technologies for Fish Guidance, Charlotte, North Carolina, U.S.A., Aug. 30-31, 1999.* 2001, Bethesda: American Fisheries Society.
958. Lindberg, S.E., BOOK: *Atmospheric Environment: Atmospheric Transport, Chemistry and Deposition of Mercury, Papers from the Fourth International Conference on Mercury as a Global Pollutant, Hamburg, Germany, August 4-8, 1996.* 2001: Pergamon, , USA.

#### 2001 Book Sections

959. Cada, G.F., BOOK SECTION: *Fish Passage Mitigation at Hydroelectric Power Projects in the United States*, in *Fish Migration and Fish Bypasses*, M. Jungwirth, S. Schmutz, and S. Weiss, Editors. 2001, Blackwell. p. 208-219.
960. Coutant, C.C., BOOK SECTION: *Turbulent Attraction Flows for Guiding Juvenile Salmonids at Dams.* 2001, American Fisheries Society: Bethesda.
961. Coutant, C.C., BOOK SECTION: *Integrated, Multi-Sensory, Behavioral Guidance Systems for Fish Diversions.* 2001, American Fisheries Society: Bethesda.
962. Scurlock, J.M., R.J. Olson, R.A. McCord, and W.K. Michener, BOOK SECTION: *Environmental Data Banks: Archiving Ecological Data and Information.* 2001, John Wiley and Sons, Ltd.: Chichester.

#### 2001 Conference Papers

963. Martin, M., S. Wullschleger, and C. Garten Jr. CONFERENCE PAPER: *Laser-induced breakdown spectroscopy for environmental monitoring of soil carbon and nitrogen.* in *Advanced Environmental Sensing Technology II, Oct 31-Nov 1 2001.* 2001. Newton, MA, United States: The International Society for Optical Engineering.

#### 1002 Electronic Sources

964. Ryon, M.G., ELECTRONIC SOURCE: Web document: *Aquatic recovery on the Oak Ridge National Environmental Research Park.* 2001, Oak Ridge National Laboratory
965. Ryon, M.G., ELECTRONIC SOURCE: Web document: *Biological monitoring and abatement program at the Oak Ridge National Environmental Research Park.* 2001, Oak Ridge National Laboratory

#### 2001 Journal Articles

966. Adams, S.M., J.P. Giesy, L.A. Tremblay, and C.T. Eason, Biomarkers ARTICLE: *The use of biomarkers in ecological risk assessment: recommendations from the Christchurch conference on Biomarkers in Ecotoxicology.* Biomarkers, 2001. **6**(1): p. 1-6.
967. Adams, S.M., Biomarkers ARTICLE: *Biomarker/bioindicator response profiles of organisms can help differentiate between sources of anthropogenic stressors in aquatic ecosystems.*

- Biomarkers, 2001. **6**(1): p. 33-44.
968. Al-Lehyani, I., M. Widom, Y. Wang, N. Moghadam, G.M. Stocks, and J.A. Moriarty, Phys. Rev. B ARTICLE: *Transition-metal interactions in aluminum-rich intermetallics*. Phys. Rev. B, 2001. **6407**(7).
969. Amthor, J.S., J.M. Chen, J.S. Clein, S.E. Frolking, M.L. Goulden, R.F. Grant, J.S. Kimball, A.W. King, A.D. McGuire, N.T. Nikolov, C.S. Potter, S. Wang, and S.C. Wofsy, J. Geophys. Res.-Atmos. ARTICLE: *Boreal forest CO<sub>2</sub> exchange and evapotranspiration predicted by nine ecosystem process models: Intermodel comparisons and relationships to field measurements*. J. Geophys. Res.-Atmos., 2001. **106**(D24): p. 33623-33648.
970. Amthor, J.S., G.W. Koch, J.R. Willms, and D.B. Layzell, J. Exp. Bot. ARTICLE: *Leaf O<sub>2</sub> uptake in the dark is independent of coincident CO<sub>2</sub> partial pressure*. J. Exp. Bot., 2001. **52**(364): p. 2235-2238.
971. Amthor, J.S., Field Crop. Res. ARTICLE: *Effects of atmospheric CO<sub>2</sub> concentration on wheat yield: review of results from experiments using various approaches to control CO<sub>2</sub> concentration*. Field Crop. Res., 2001. **73**(1): p. 1-34.
972. Barnett, M.O., R.R. Turner, and P.C. Singer, Appl. Geochem. ARTICLE: *Oxidative dissolution of metacinnabar (beta-HgS) by dissolved oxygen*. Appl. Geochem., 2001. **16**(13): p. 1499-1512.
973. Barnett, M.O., E.E. Roden, P.M. Jardine, and S.C. Brooks, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Biogeochemical interactions of uranium and Fe(III) oxides in subsurface environments*. Abstr. Pap. Am. Chem. Soc., 2001. **222**: p. U23-U23.
974. Bugmann, H.K.M., S.D. Wullschleger, D.T. Price, K. Ogle, D.F. Clark, and A.M. Solomon, Clim. Change ARTICLE: *Comparing the performance of forest gap models in North America*. Clim. Change, 2001. **51**(3-4): p. 349-388.
975. Cada, G.F., Fisheries ARTICLE: *The development of advanced hydroelectric turbines to improve fish passage survival*. Fisheries, 2001. **26**(9): p. 14-23.
976. Cheng, M.D. and C.J. Lin, J. Geophys. Res.-Atmos. ARTICLE: *Receptor modeling for smoke of 1998 biomass burning in Central America*. J. Geophys. Res.-Atmos., 2001. **106**(D19): p. 22871-22886.
977. Clark, M.E., K.A. Rose, D.A. Levine, and W.W. Hargrove, Ecol. Appl. ARTICLE: *Predicting climate change effects on Appalachian trout: Combining GIS and individual-based modeling*. Ecol. Appl., 2001. **11**(1): p. 161-178.
978. Dale, V.H. and S.C. Beyeler, Ecol. Indicators ARTICLE: *Challenges in the development and use of ecological indicators*. Ecol. Indicators, 2001. **1**(1): p. 3-10.
979. Dale, V.H., L.A. Joyce, S. McNulty, R.P. Neilson, M.P. Ayres, M.D. Flannigan, P.J. Hanson, L.C. Irland, A.E. Lugo, C.J. Peterson, D. Simberloff, F.J. Swanson, B.J. Stocks, and B.M. Wotton, Bioscience ARTICLE: *Climate change and forest disturbances*. Bioscience, 2001. **51**(9): p. 723-734.
980. Dinus, R.J., P. Payne, N.M. Sewell, V.L. Chiang, and G.A. Tuskan, Critical Reviews in Plant Sciences ARTICLE: *Genetic modification of short rotation poplar wood: Properties for ethanol fuel and fiber productions*. Critical Reviews in Plant Sciences, 2001. **20**(1): p. 51-69.
981. Efroymsen, R.A., B.E. Sample, and G.W. Suter, Environ. Toxicol. Chem. ARTICLE: *Uptake of inorganic chemicals from soil by plant leaves: Regressions of field data*. Environ. Toxicol. Chem., 2001. **20**(11): p. 2561-2571.
982. Efroymsen, R.A. and D.L. Murphy, Sci. Total Environ. ARTICLE: *Ecological risk assessment of multimedia hazardous air pollutants: estimating exposure and effects*. Sci. Total Environ., 2001. **274**(1-3): p. 219-230.
983. Efroymsen, R.A., G.W. Suter, W.H. Rose, and S. Nemeth, Risk Anal. ARTICLE: *Ecological risk assessment framework for low-altitude aircraft overflights: I. Planning the analysis and estimating exposure*. Risk Anal., 2001. **21**(2): p. 251-262.
984. Efroymsen, R.A. and G.W. Suter, Risk Anal. ARTICLE: *Ecological risk assessment framework for low-altitude aircraft overflights: II. Estimating effects on wildlife*. Risk Anal., 2001. **21**(2): p.

263-274.

985. Efroymsen, R.A., B.E. Sample, and G.W. Suter II, Environ. Toxicol. Chem. ARTICLE: *Uptake of inorganic chemicals from soil by plant leaves: Regressions of field data*. Environ. Toxicol. Chem., 2001. **20**(11): p. 2561-2571.
986. Gates-Anderson, D.D., R.L. Siegrist, and S.R. Cline, J. Environ. Eng.-ASCE ARTICLE: *Comparison of potassium permanganate and hydrogen peroxide as chemical oxidants for organically contaminated soils*. J. Environ. Eng.-ASCE, 2001. **127**(4): p. 337-347.
987. Gower, S.T., O. Krankina, R.J. Olson, M. Apps, S. Linder, and C. Wang, Ecol. Appl. ARTICLE: *Net primary production and carbon allocation patterns of boreal forest ecosystems*. Ecol. Appl., 2001. **11**(5): p. 1395-1411.
988. Gray, B.R., W.R. Hill, and A.J. Stewart, Environ. Pollut. ARTICLE: *Effects of development time, biomass and ferromanganese oxides on nickel sorption by stream periphyton*. Environ. Pollut., 2001. **112**(1): p. 61-71.
989. Gu, B., G.M. Brown, L. Maya, M.J. Lance, and B.A. Moyer, Environ. Sci. Technol. ARTICLE: *Regeneration of perchlorate (ClO<sub>4</sub>-)-loaded anion exchange resins by a novel tetrachloroferrate (FeCl<sub>4</sub>-) displacement technique*. Environ. Sci. Technol., 2001. **35**(16): p. 3363-3368.
990. Gwo, J.P., E.F. D'Azevedo, H. Frenzel, M. Mayes, G.T. Yeh, P.M. Jardine, K.M. Salvage, and F.M. Hoffman, Comput. Geosci. ARTICLE: *HBGC123D: a high-performance computer model of coupled hydrogeological and biogeochemical processes*. Comput. Geosci., 2001. **27**(10): p. 1231-1242.
991. Hansen, A.J., R.R. Neilson, V.H. Dale, C.H. Flather, L.R. Iverson, D.J. Currie, S. Shafer, R. Cook, and P.J. Bartlein, Bioscience ARTICLE: *Global change in forests: Responses of species, communities, and biomes*. Bioscience, 2001. **51**(9): p. 765-779.
992. Hanson, P.J., D.E. Todd, and J.S. Amthor, Tree Physiol. ARTICLE: *A six-year study of sapling and large-tree growth and mortality responses to natural and induced variability in precipitation and throughfall*. Tree Physiol., 2001. **21**(6): p. 345-358.
993. Hanson, P.J., D.E. Todd, and J.S. Amthor, Tree Physiol. ARTICLE: *A six-year study of sapling and large-tree growth and mortality responses to natural and induced variability in precipitation and throughfall*. Tree Physiol., 2001. **21**(15): p. 1158-1158.
994. Hargrove, W.W., F.M. Hoffman, and T. Sterling, Sci.Am. ARTICLE: *The do-it-yourself supercomputer*. Sci.Am., 2001. **285**(2): p. 72-79.
995. Hill, W.R., P.J. Mulholland, and E.R. Marzolf, Ecology ARTICLE: *Stream ecosystem responses to forest leaf emergence in spring*. Ecology, 2001. **82**(8): p. 2306-2319.
996. Hollenstein, K., R.L. Graham, and W.D. Shepperd, J. For. ARTICLE: *Biomass flow in western forests: Simulating the effects of fuel reduction and presettlement restoration treatments*. J. For., 2001. **99**(10): p. 12-19.
997. Humphries, S.S., K.D. Gwinn, and A.J. Stewart, Environ. Toxicol. Chem. ARTICLE: *Effects of endophyte status of tall fescue tissues on the earthworm (Eisenia fetida)*. Environ. Toxicol. Chem., 2001. **20**(6): p. 1346-1350.
998. Hurt, R.A., X.Y. Qiu, L.Y. Wu, Y. Roh, A.V. Palumbo, J.M. Tiedje, and J.H. Zhou, Appl. Environ. Microbiol. ARTICLE: *Simultaneous recovery of RNA and DNA from soils and sediments*. Appl. Environ. Microbiol., 2001. **67**(10): p. 4495-4503.
999. Huston, M.A., Science ARTICLE: *People and biodiversity in Africa*. Science, 2001. **293**(5535): p. 1591-1591.
1000. Inn, K.G.W., Z.C. Lin, Z.Y. Wu, C. McMahon, J.J. Filliben, P. Krey, M. Feiner, C.K. Liu, R. Holloway, J. Harvey, I.L. Larsen, T. Beasley, C.A. Huh, S. Morton, D. McCurdy, P. Germain, J. Handl, M. Yamamoto, B. Warren, T.H. Bates, A. Holms, B.R. Harvey, D.S. Popplewell, M.J. Woods, S. Jerome, K.J. Odell, P. Young, and I. Croudace, J. Radioanal. Nucl. Chem. ARTICLE: *The NIST natural-matrix radionuclide standard reference material program for ocean studies*. J. Radioanal. Nucl. Chem., 2001. **248**(1): p. 227-231.
1001. Jager, H.I., Ecol. Model. ARTICLE: *Individual variation in life history characteristics can*

- influence extinction risk. Ecol. Model.*, 2001. **144**(1): p. 61-76.
1002. Jager, H.I. and J.A. Tyler, *Ecol. Model. ARTICLE: Discussion on 'Movement rules for individual-based models of stream fish' S.F. Railsback et al. 123 (1999) 73-89. Ecol. Model.*, 2001. **143**(3): p. 245-248.
1003. Jager, H.I., J.A. Chandler, K.B. Lepla, and W. Van Winkle, *Environ. Biol. Fishes ARTICLE: A theoretical study of river fragmentation by dams and its effects on white sturgeon populations. Environ. Biol. Fishes*, 2001. **60**(4): p. 347-361.
1004. Jones, D.W., D.J. Bjornstad, and K.S. Redus, *Environ. Model. Assess. ARTICLE: Prioritizing R&D for the US Department of Energy's weapons complex clean-up. Environ. Model. Assess.*, 2001. **6**(3): p. 209-215.
1005. Jones, D.S., *Hum. Ecol. Risk Assess. ARTICLE: Background ecological risks: When and how to weigh in. Hum. Ecol. Risk Assess.*, 2001. **7**(3): p. 635-638.
1006. Joslin, J.D., M.H. Wolfe, and P.J. Hanson, *Plant Soil ARTICLE: Factors controlling the timing of root elongation intensity in a mature upland oak stand. Plant Soil*, 2001. **228**(2): p. 201-212.
1007. Lin, C.J., M.D. Cheng, and W.H. Schroeder, *Atmos. Environ. ARTICLE: Transport patterns and potential sources of total gaseous mercury measured in Canadian high Arctic in 1995. Atmos. Environ.*, 2001. **35**(6): p. 1141-1154.
1008. Lindberg, S.E. and T.P. Meyers, *Wetlands Ecol.Manage. ARTICLE: Development of an automated micrometeorological method for measuring the emission of mercury vapor from wetland vegetation. Wetlands Ecol.Manage.*, 2001. **9**(4): p. 333-347.
1009. Lindberg, S.E., S. Brooks, J. Lin, K. Scott, M. Goodsite, M.S. Tilden, M. Landis, and R. Stevens, *Abstr. Pap. Am. Chem. Soc. ARTICLE: Dynamic oxidation of mercury in the arctic troposphere: Mercury speciation in air, deposition, and accumulation in snow from the Barrow, Alaska arctic mercury study. Abstr. Pap. Am. Chem. Soc.*, 2001. **222**: p. U429-U429.
1010. Lindberg, S.E., D. Wallschlager, E.M. Prestbo, N.S. Bloom, J. Price, and D. Reinhart, *Atmos. Environ. ARTICLE: Methylated mercury species in municipal waste landfill gas sampled in Florida, USA. Atmos. Environ.*, 2001. **35**(23): p. 4011-4015.
1011. Lindberg, S., M.S. Landis, R.K. Stevens, and S. Brooks, *Atmos. Environ. ARTICLE: Comments on 'Atmospheric mercury species in the European Arctic: measurements and modeling' by Berg et al. Atmospheric Environment 14 (2001), 2569-2582. Atmos. Environ.*, 2001. **35**(31): p. 5377-5378.
1012. Liu, Y., C. Dammann, and M.K. Bhattacharyya, *Plant Physiology ARTICLE: The matrix metalloproteinase gene GmMMP2 is activated in response to pathogenic infections in soybean. Plant Physiology*, 2001. **127**(4): p. 1788-1797.
1013. Loreau, M., S. Naeem, P. Inchausti, J. Bengtsson, J.P. Grime, A. Hector, D.U. Hooper, M.A. Huston, D. Raffaelli, B. Schmid, D. Tilman, and D.A. Wardle, *Science ARTICLE: Ecology - Biodiversity and ecosystem functioning: Current knowledge and future challenges. Science*, 2001. **294**(5543): p. 804-808.
1014. Marland, G., B.A. McCarl, and U. Schneider, *Clim. Change ARTICLE: Soil carbon: Policy and economics. Clim. Change*, 2001. **51**(1): p. 101-117.
1015. Martin, L.A., P.J. Mulholland, J.R. Webster, and H.M. Valett, *J. N. Am. Benthol. Soc. ARTICLE: Denitrification potential in sediments of headwater streams in the southern Appalachian Mountains, USA. J. N. Am. Benthol. Soc.*, 2001. **20**(4): p. 505-519.
1016. Mayes, M.A., P.M. Jardine, S.E. Fendorf, T.L. Mehlhorn, and B.N. Bjornstad, *Abstr. Pap. Am. Chem. Soc. ARTICLE: Hydrologic and geochemical processes controlling the transport of uranium and cesium through the Hanford vadose zone. Abstr. Pap. Am. Chem. Soc.*, 2001. **222**: p. U494-U495.
1017. McMaster, M.E., J.J. Jardine, G.T. Ankley, W.H. Benson, M.S. Greeley, T.S. Gross, L.J. Guillette, D.L. MacLatchy, E.F. Orlando, G.J. Van der Kraak, and K.R. Munkittrick, *Environ. Toxicol. Chem. ARTICLE: An interlaboratory study on the use of steroid hormones in examining endocrine disruption. Environ. Toxicol. Chem.*, 2001. **20**(9): p. 2081-2087.
1018. Metting, F.B., J.L. Smith, J.S. Amthor, and R.C. Izaurralde, *Clim. Change ARTICLE: Science*

- needs and new technology for increasing soil carbon sequestration. Clim. Change, 2001. 51(1): p. 11-34.*
1019. Mulholland, P.J., C.S. Fellows, J.L. Tank, N.B. Grimm, J.R. Webster, S.K. Hamilton, E. Marti, L. Ashkenas, W.B. Bowden, W.K. Dodds, W.H. McDowell, M.J. Paul, and B.J. Peterson, *Freshw. Biol. ARTICLE: Inter-biome comparison of factors controlling stream metabolism. Freshw. Biol., 2001. 46(11): p. 1503-1517.*
1020. Munthe, J., I. Wangberg, N. Pirrone, A. Iverfeldt, R. Ferrara, R. Ebinghaus, X. Feng, K. Gardfeldt, G. Keeler, E. Lanzillotta, S.E. Lindberg, J. Lu, Y. Mamane, E. Prestbo, S. Schmolke, W.H. Schroeder, J. Sommar, F. Sprovieri, R.K. Stevens, W. Stratton, G. Tuncel, and A. Urba, *Atmos. Environ. ARTICLE: Intercomparison of methods for sampling and analysis of atmospheric mercury species. Atmos. Environ., 2001. 35(17): p. 3007-3017.*
1021. Murray, A.E., D. Lies, G. Li, K. Nealson, J. Zhou, and J.M. Tiedje, *Proc. Natl. Acad. Sci. U. S. A. ARTICLE: DNA/DNA hybridization to microarrays reveals gene-specific differences between closely related microbial genomes. Proc. Natl. Acad. Sci. U. S. A., 2001. 98(17): p. 9853-9858.*
1022. Norby, R.J., M.F. Cotrufo, P. Ineson, E.G. O'Neill, and J.G. Canadell, *Oecologia ARTICLE: Elevated CO<sub>2</sub>, litter chemistry, and decomposition: a synthesis. Oecologia, 2001. 127(2): p. 153-165.*
1023. Norby, R.J., K. Ogle, P.S. Curtis, F.W. Badeck, A. Huth, G.C. Hurtt, T. Kohyama, and J. Penuelas, *Clim. Change ARTICLE: Aboveground growth and competition in forest gap models: An analysis for studies of climatic change. Clim. Change, 2001. 51(3-4): p. 415-447.*
1024. Norby, R.J., K. Kobayashi, and B.K. Kimball, *New Phytol. ARTICLE: Rising CO<sub>2</sub> - future ecosystems - Commentary. New Phytol., 2001. 150(2): p. 215-221.*
1025. Norby, R.J., D.E. Todd, J. Fults, and D.W. Johnson, *New Phytol. ARTICLE: Allometric determination of tree growth in a CO<sub>2</sub>-enriched sweetgum stand. New Phytol., 2001. 150(2): p. 477-487.*
1026. O' Neill, R.V., *Ecology ARTICLE: Is it time to bury the ecosystem concept? (With full military honors of course!). Ecology, 2001. 82(12): p. 3275-3284.*
1027. Peterson, B.J., W.M. Wollheim, P.J. Mulholland, J.R. Webster, J.L. Meyer, J.L. Tank, E. Marti, W.B. Bowden, H.M. Valett, A.E. Hershey, W.H. McDowell, W.K. Dodds, S.K. Hamilton, S. Gregory, and D.D. Morrall, *Science ARTICLE: Control of nitrogen export from watersheds by headwater streams. Science, 2001. 292(5514): p. 86-90.*
1028. Phelps, T.J., D.J. Peters, S.L. Marshall, O.R. West, L.Y. Liang, J.G. Blencoe, V. Alexiades, G.K. Jacobs, M.T. Naney, and J.L. Heck, *Rev. Sci. Instrum. ARTICLE: A new experimental facility for investigating the formation and properties of gas hydrates under simulated seafloor conditions. Rev. Sci. Instrum., 2001. 72(2): p. 1514-1521.*
1029. Phillips, D.H., J.E. Foss, C.A. Stiles, C.C. Trettin, and R.J. Luxmoore, *Catena ARTICLE: Soil-landscape relationships at the lower reaches of a watershed at Bear Creek near Oak Ridge, Tennessee. Catena, 2001. 44(3): p. 205-222.*
1030. Post, W.M., R.C. Izaurralde, L.K. Mann, and N. Bliss, *Clim. Change ARTICLE: Monitoring and verifying changes of organic carbon in soil. Clim. Change, 2001. 51(1): p. 73-99.*
1031. Potter, C.S., S.S. Wang, N.T. Nikolov, A.D. McGuire, J. Liu, A.W. King, J.S. Kimball, R.F. Grant, S.E. Frolking, J.S. Clein, J.M. Chen, and J.S. Amthor, *J. Geophys. Res.-Atmos. ARTICLE: Comparison of boreal ecosystem model sensitivity to variability in climate and forest site parameters. J. Geophys. Res.-Atmos., 2001. 106(D24): p. 33671-33687.*
1032. Qiu, X.Y., L.Y. Wu, H.S. Huang, P.E. McDonel, A.V. Palumbo, J.M. Tiedje, and J.Z. Zhou, *Appl. Environ. Microbiol. ARTICLE: Evaluation of PCR-generated chimeras: Mutations, and heteroduplexes with 16S rRNA gene-based cloning. Appl. Environ. Microbiol., 2001. 67(2): p. 880-887.*
1033. Rea, A.W., S.E. Lindberg, and G.J. Keeler, *Atmos. Environ. ARTICLE: Dry deposition and foliar leaching of mercury and selected trace elements in deciduous forest throughfall. Atmos. Environ., 2001. 35(20): p. 3453-3462.*
1034. Riemenschneider, D.E., W.E. Berguson, D.I. Dickmann, R.B. Hall, J.G. Isebrands, C.A. Mohn,

- G.R. Stanosz, and G.A. Tuskan, *Forestry Chronicle* ARTICLE: *Poplar breeding and testing strategies in the north-central US: Demonstration of potential yield and consideration of future research needs*. *Forestry Chronicle*, 2001. **77**(2): p. 245-253.
1035. Roh, Y., R.J. Lauf, A.D. McMillan, C. Zhang, C.J. Rawn, J. Bai, and T.J. Phelps, *Solid State Commun.* ARTICLE: *Microbial synthesis and the characterization of metal-substituted magnetites*. *Solid State Commun.*, 2001. **118**(10): p. 529-534.
1036. Roh, Y., K.-S. Cho, and S. Lee, *Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering* ARTICLE: *Electrochemical remediation of trichloroethene-contaminated groundwater using palladized iron oxides*. *Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering*, 2001. **36**(6): p. 923-933.
1037. Roy, W.K., J.W. Evans, and M.G. Ryon, *Migrant* ARTICLE: *The red-headed woodpecker and brown-headed nuthatch on the Oak Ridge Reservation: relationship to recent landscape changes*. *Migrant*, 2001. **72**(1): p. 1-12.
1038. Rustad, L.E., J.L. Campbell, G.M. Marion, R.J. Norby, M.J. Mitchell, A.E. Hartley, J.H.C. Cornelissen, and J. Gurevitch, *Oecologia* ARTICLE: *A meta-analysis of the response of soil respiration, net nitrogen mineralization, and aboveground plant growth to experimental ecosystem warming*. *Oecologia*, 2001. **126**(4): p. 543-562.
1039. Sanzone, D.M., J.L. Tank, J.L. Meyer, P.J. Mulholland, and S.E.G. Findlay, *Hydrobiologia* ARTICLE: *Microbial incorporation of nitrogen in stream detritus*. *Hydrobiologia*, 2001. **464**(1-3): p. 27-35.
1040. Spalding, B.P. and I.R. Spalding, *Environ. Sci. Technol.* ARTICLE: *Chemical equilibria model of strontium-90 adsorption and transport in soil in response to dynamic alkaline conditions*. *Environ. Sci. Technol.*, 2001. **35**(2): p. 365-373.
1041. Spalding, B.P., *Environ. Sci. Technol.* ARTICLE: *Fixation of radionuclides in soil and minerals by heating*. *Environ. Sci. Technol.*, 2001. **35**(21): p. 4327-4333.
1042. St Louis, V.L., J.W.M. Rudd, C.A. Kelly, B.D. Hall, K.R. Rolffhus, K.J. Scott, S.E. Lindberg, and W. Dong, *Environ. Sci. Technol.* ARTICLE: *Importance of the forest canopy to fluxes of methyl mercury and total mercury to boreal ecosystems*. *Environ. Sci. Technol.*, 2001. **35**(15): p. 3089-3098.
1043. Stewart, A.J., *Environ. Manage.* ARTICLE: *A simple stream monitoring technique based on measurements of semiconservative properties of water*. *Environ. Manage.*, 2001. **27**(1): p. 37-46.
1044. Stratton, W.J., S.E. Lindberg, and C.J. Perry, *Environ. Sci. Technol.* ARTICLE: *Atmospheric mercury speciation: Laboratory and field evaluation of a mist chamber method for measuring reactive gaseous mercury*. *Environ. Sci. Technol.*, 2001. **35**(1): p. 170-177.
1045. Sullivan, A.B. and J.I. Drever, *Appl. Geochem.* ARTICLE: *Geochemistry of suspended particles in a mine-affected mountain stream*. *Appl. Geochem.*, 2001. **16**(15): p. 1663-1676.
1046. Sullivan, A.B. and J.I. Drever, *J. Hydrol.* ARTICLE: *Spatiotemporal variability in stream chemistry in a high-elevation catchment affected by mine drainage*. *J. Hydrol.*, 2001. **252**(1-4): p. 237-250.
1047. Tonn, B.E., P. Zambrano, and S. Moore, *Social Science Computer Review* ARTICLE: *Community networks or networked communities?* *Social Science Computer Review*, 2001. **19**(2): p. 201-212.
1048. Tuskan, G.A. and M.E. Walsh, *Forestry Chronicle* ARTICLE: *Short-rotation woody crop systems, atmospheric carbon dioxide and carbon management: A US case study*. *Forestry Chronicle*, 2001. **77**(2): p. 259-264.
1049. Wightman, P.G., J.B. Fein, D.J. Wesolowski, T.J. Phelps, P. Benezeth, and D.A. Palmer, *Geochim. Cosmochim. Acta* ARTICLE: *Measurement of bacterial surface protonation constants for two species at elevated temperatures*. *Geochim. Cosmochim. Acta*, 2001. **65**(21): p. 3657-3669.
1050. Wilson, K.B., D.D. Baldocchi, and P.J. Hanson, *Plant Cell Environ.* ARTICLE: *Leaf age affects*

- the seasonal pattern of photosynthetic capacity and net ecosystem exchange of carbon in a deciduous forest.* Plant Cell Environ., 2001. **24**(6): p. 571-583.
1051. Wilson, K.B., P.J. Hanson, P.J. Mulholland, D.D. Baldocchi, and S.D. Wullschleger, Agric. For. Meteorol. ARTICLE: *A comparison of methods for determining forest evapotranspiration and its components: sap-flow, soil water budget, eddy covariance and catchment water balance.* Agric. For. Meteorol., 2001. **106**(2): p. 153-168.
1052. With, K.A. and A.W. King, Biol. Conserv. ARTICLE: *Analysis of landscape sources and sinks: the effect of spatial pattern on avian demography.* Biol. Conserv., 2001. **100**(1): p. 75-88.
1053. Wu, L.Y., D.K. Thompson, G.S. Li, R.A. Hurt, J.M. Tiedje, and J.Z. Zhou, Applied and Environmental Microbiology ARTICLE: *Development and evaluation of functional gene arrays for detection of selected genes in the environment.* Applied and Environmental Microbiology, 2001. **67**(12): p. 5780-5790.
1054. Wullschleger, S.D., P.J. Hanson, and D.E. Todd, For. Ecol. Manage. ARTICLE: *Transpiration from a multi-species deciduous forest as estimated by xylem sap flow techniques.* For. Ecol. Manage., 2001. **143**(1-3): p. 205-213.
1055. Wullschleger, S.D. and R.J. Norby, New Phytol. ARTICLE: *Sap velocity and canopy transpiration in a sweetgum stand exposed to free-air CO<sub>2</sub> enrichment (FACE).* New Phytol., 2001. **150**(2): p. 489-498.
1056. Wullschleger, S.D., R.B. Jackson, W.S. Currie, A.D. Friend, Y. Luo, F. Mouillot, Y. Pan, and G.F. Shao, Clim. Change ARTICLE: *Below-ground processes in gap models for simulating forest response to global change.* Clim. Change, 2001. **51**(3-4): p. 449-473.
1057. Zhang, H., S.E. Lindberg, and M.S. Gustin, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Nature of diel trend of mercury emission from soil: Current understanding and hypotheses.* Abstr. Pap. Am. Chem. Soc., 2001. **222**: p. U429-U429.
1058. Zhang, H., S.E. Lindberg, T. Kuiken, and J. Nriagu, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Photochemical production of dissolved gaseous mercury in freshwater: The role of Fe(III).* Abstr. Pap. Am. Chem. Soc., 2001. **222**: p. U430-U430.
1059. Zhang, C.L., J. Horita, D.R. Cole, J.Z. Zhou, D.R. Lovley, and T.J. Phelps, Geochim. Cosmochim. Acta ARTICLE: *Temperature-dependent oxygen and carbon isotope fractionations of biogenic siderite.* Geochim. Cosmochim. Acta, 2001. **65**(14): p. 2257-2271.
1060. Zhang, H. and S.E. Lindberg, Environ. Sci. Technol. ARTICLE: *Sunlight and iron(III)-induced photochemical production of dissolved gaseous mercury in freshwater.* Environ. Sci. Technol., 2001. **35**(5): p. 928-935.
1061. Zhang, H., S.E. Lindberg, F.J. Marsik, and G.J. Keeler, Water Air Soil Pollut. ARTICLE: *Mercury air/surface exchange kinetics of background soils of the Tahquamenon River watershed in the Michigan Upper Peninsula.* Water Air Soil Pollut., 2001. **126**(1-2): p. 151-169.
1062. Zhang, H. and S.E. Lindberg, Environ. Sci. Technol. ARTICLE: *Sunlight and iron(III)-induced photochemical production of dissolved gaseous mercury in freshwater.* Environ. Sci. Technol., 2001. **35**(5): p. 928-935.
1063. Zhou, J., S. Liu, B. Xia, C. Zhang, A.V. Palumbo, and T.J. Phelps, J. Appl. Microbiol. ARTICLE: *Molecular characterization and diversity of thermophilic iron-reducing enrichment cultures from deep subsurface environments.* J. Appl. Microbiol., 2001. **90**(1): p. 96-105.

## 2001 Reports

1064. Brandt, C.C., S.K. Holladay, and D.B. Watson, REPORT: *Quality Assurance Plan for Field Activities at the Natural and Accelerated Bioremediation Research (NABIR) Field Research Center (FRC), Oak Ridge, Tennessee, ORNL/TM-2000/268.2001,*
1065. Brooks, S.C., REPORT: *Waste Characteristics of the Former S-3 Ponds and Outline of Uranium Chemistry Relevant to NABIR Field Research Center Studies, ORNL/TM-2001/27.2001,*
1066. Cushman, R.M., REPORT: *Publications, Presentations, and Awards (ORNL/CDIAC-*



- 101),ORNL/CDIAC-101/R2.2001,
1067. Cushman, R.M., T.A. Boden, L.A. Hook, S.B. Jones, D.P. Kaiser, A.V. Kozyr, and T.R. Nelson,REPORT: Carbon Dioxide Information Analysis Center and World Data Center for Atmospheric Trace Gases Fiscal Year 2000 Annual Report,ORNL/CDIAC-133.2001,
1068. Das, S., J. Peretz, and B. Tonn,REPORT: Evaluation of the Benefits Attributable to Automotive Lightweight Materials Program Research and Development Projects,ORNL/TM-2001/237.2001,
1069. Efroymsen, R.A., W.W. Hargrove, M.J. Peterson, D.S. Jones, W.H. Rose, L. Pater, K. Reinbold, and G.W. Suter II,REPORT: Demonstration of the Military Ecological Risk Assessment Framework (MERAf): Apache Longbow - Hell Missile Test at Yuma Proving Ground,ORNL/TM-2001/211.2001,
1070. Hadley, S., C. Hudson, D. Jones, and D. Vogt,REPORT: The Potential Economic Impact of Electricity Restructuring in the State of Oklahoma: Phase II Report,ORNL/CON-485.2001,
1071. Hanson, P.J., D.E. Todd, J.S. Riggs, M.E. Wolfe, E.G. O'Neill, and R.M. Cushman,REPORT: Walker Branch Throughfall Displacement Experiment Data Report: Site Characterization, System Performance, Weather, Species Composition, and Growth,ORNL/CDIAC-134.2001,
1072. Houghton, R.A., J.L. Hackler, and R.M. Cushman,REPORT: Carbon Flux to the Atmosphere from Land-Use Changes: 1850 to 1990,ORNL/CDIAC-131.2001,
1073. Johnson, D.W., D.W. Cole, F.W. Horng, H. Van Miegroet, and D.E. Todd,REPORT: Chemical Characteristics of Two Forested Ultisols and Two Forested Inceptisols Relevant to Anion Production and Mobility,ORNL/TM-7646.2001,
1074. Korte, N.,REPORT: Zero-Valent Iron Permeable Reactive Barriers: A Review of Performance,ORNL/TM-2000/345.2001,
1075. Korte, N., M.J. Wilson-Nichols, S.C.P. Hall, G., and J. Zutman,REPORT: Montezuma Creek Stability Evaluation at Site of Former Monticello Tailings Pile,ORNL/TM-2001/7.2001,
1076. Koyzr, A. and T.W. Beaty,REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the R/V Knorr Cruise 138-3, -4, and -5 in the South Pacific Ocean, (WOCE Sections P6E, P6C, and P6W, May 2-July 30, 1992),ORNL/CDIAC-132.2001,
1077. Liang, L., N.E. Korte, G.R. Moline, and O.R. West,REPORT: Long-Term Monitoring of Permeable Reactive Barriers - Progress Report,ORNL/TM-2001/1.Apr,2001,Oak Ridge:Oak Ridge National Laboratory
1078. Liang, L., N.E. Korte, G.R. Moline, and O.R. West,REPORT: Long-Term Monitoring of Permeable Reactive Barriers - Progress Report,ORNL/TM-2001/1.2001,
1079. Muck, M., P. Kearl, R. Siegrist, N. Korte, R. Schlosser, M. Mumby, D. Davenport, D. Greene, D. Pickering, and C. Muhr,REPORT: Field Evaluation of a Horizontal Well Recirculation System for Groundwater Treatment: Pilot Test at the Clean Test Site Portsmouth Gaseous Diffusion Plant, Piketon, Ohio,ORNL/TM-13531.2001,
1080. Olson, R.J., K.R. Johnson, D.L. Zheng, and J.M. Scurlock,REPORT: Global and Regional Ecosystem Modeling: Databases of Model Drivers and Validation Measurements,ORNL/TM-2001/196.2001,
1081. Sale, M.J., G.F. Cada, D.D. Dauble, B.N. Rinehart, G.L. Sommers, J.V. Flynn, and P.A. Brookshier,REPORT: DOE Hydropower Program Annual Report for FY 2000,R02-113392.2001,
1082. Schexnayder, S.M., S. Das, R. Dhingra, J.G. Overly, B.E. Tonn, J.H. Peretz, G. Waidley, and G.A. Davis,REPORT: Environmental Evaluation of New Generation Vehicles and Vehicle Components,ORNL/TM-2001/266.2001,
1083. Scurlock, J., G. Asner, and S. Gower,REPORT: Worldwide Historical Estimates of Leaf Area Index, 1932-2000,ORNL/TM-2001/268.2001,
1084. Tuskan, G.A., D. West, M. Davis, C. Elam, R. Evans, H. Bradshaw, D. Neale, M. Sewell, N. Wheeler, B. Megraw, K. Jech, C. Weirman, and R. Dinus,REPORT: Development and Validation of Marker-Aided Selection Methods for Wood Property Traits in Loblolly Pine and Hybrid Poplar,ORNL/TM-2001/41.2001,

1085. Watson, D.B. and H.D. Quarles, REPORT: Natural and Accelerated Bioremediation Research (NABIR) Field Research Center (FRC) Management Plan, ORNL/TM-2000/267. 2001,
1086. Wolfe, A.K., D.J. Bjornstad, and D.B. Watson, REPORT: Communication Strategy for the U.S. Department of Energy Natural and Accelerated Bioremediation Research (NABIR) Field Research Center (FRC), ORNL/TM-2001/96. 2001,

#### 2002 Books

1087. Adams, S.M., BOOK: *Biological Indicators of Aquatic Ecosystem Stress*. 2002, Bethesda: American Fisheries Society.
1088. Cada, G.F., D.S. Pavlov, A.I. Lupandin, and V.V. Kostin, BOOK: *Downstream Migration of Fish Through Dams of Hydroelectric Power Plants*. 2002: Nauka Press, Moscow, Russia.
1089. Dale, V.H., BOOK: *Ecological Modeling for Resource Management*. 2002, New York: Springer-Verlag.
1090. Format, R.T., D. Sperling, J. Bissonette, A. Clevenger, C. Cutshall, V.H. Dale, L. Fahrig, R. France, C. Goldman, K. Heanue, J. Jones, F. Swanson, T. Turrentine, and T. Winter, BOOK: *Road Ecology: Science and Solutions*. 2002: Island Press.
1091. Saulsbury, J.W., M.S. Bevelhimer, H.D. Quarles, III, D. Rodman, W.P. Staub, R.K. Tallent, and J.W. Van Dyke, BOOK: *Final Supplemental Environmental Impact Statement for the Rocky Creek Hydroelectric Project*. 2002: Federal Energy Regulatory Commission, Washington, DC USA.

#### 2002 Book Sections

1092. Adams, S.M., BOOK SECTION: *Biological indicators of aquatic ecosystem stress: Introduction and overview*, in *Biological Indicators of Aquatic Ecosystem Stress*, S.M. Adams, Editor. 2002, American Fisheries Society: Bethesda. p. 1-11.
1093. Dale, V.H., D.T. Fortes, and T.L. Ashwood, BOOK SECTION: *A landscape-transition matrix approach for land management*, in *Integrating Landscape Ecology into Natural Resource Management*. 2002. p. 265-293.
1094. Dale, V.H., BOOK SECTION: *Disturbance*. 2002, John Wiley & Sons Ltd.: Chichester.
1095. Dale, V.H., BOOK SECTION: *Succession*. 2002, John Wiley & Sons.: Chichester.
1096. Greeley, M.S., BOOK SECTION: *Reproductive indicators of environmental stress in fish*, in *Biological Indicators of Aquatic Ecosystem Stress*. 2002. p. 321-377.
1097. Jager, H.I., W. Van Winkle, J.A. Chandler, K.B. Lepla, P. Bates, and T.D. Coughlin, BOOK SECTION: *A Simulation Study of Factors Controlling White Sturgeon Recruitment in the Snake River*. 2002, American Fisheries Society, Bethesda, MD USA. p. 127-150 %B American Fisheries Society, Bethesda, MD USA, 2002.
1098. Martin, R.C., D.C. Glasgow, and M.Z. Martin, BOOK SECTION: *Applications of Californium-252 Neutron Irradiations and Other Nondestructive Examination Methods at Oak Ridge National Laboratory*. 2002, American Chemical Society.
1099. McCarthy, J.F., BOOK SECTION: *Subsurface Transport of Dissolved Humic Substances and Associated Contaminants*. 2002, Soil Science Society of America: Madison.
1100. Palumbo, A.V., J.Z. Zhou, C. Zhang, R.D. Stapleton, B.L. Kinsall, T.J. Phelps, V.P. Singh, and R.D. Stapleton, JR., BOOK SECTION: *Biotransformations and Biodegradation in Extreme Environments*. 2002, Elsevier: New York.
1101. Piffner, S.M., P.A. Sobczyk, T.J. Phelps, and A.V. Palumbo, BOOK SECTION: *Microbiology of Atlantic Coastal Plain Aquifers and Other Unconsolidated Subsurface Sediments*. 2002, John Wiley & Sons: New York.
1102. Phelps, T.J. and J.K. Fredrickson, BOOK SECTION: *Drilling, Coring, and Sampling Subsurface Environments*. 2002, ASM Press: Herndon.
1103. Sleep, B.E., C.R. Faust, N.D. Durant, J.C. Parker, J.G. Guarnaccia, L. Sehayek, and M.R.

Harkness, BOOK SECTION: *Modeling Fate and Transport of Chlorinated Organic Compounds in the Subsurface*. 2002, Today Media: Wilmington.

1104. Tonn, B.E. and S. Das, BOOK SECTION: *Assessment of platinum availability for advanced fuel-cell vehicles*, in *Energy, Air Quality, and Fuels 2002*. 2002, Transportation Research Board of the National Research Council: Washington. p. 99-104.

#### 2002 Conference Papers

1105. Clark, S. and R. Pitt. CONFERENCE PAPER: *BMP filters: Upflow vs. Downflow*. in *Proceedings of an Engineering Foundation Conference on: Linking Stormwater BMP Designs and Performance to Receive Water Impact Mitigation, Aug 19-24 2001*. 2002. Snowmass Village, CO, United States: American Society of Civil Engineers.
1106. Clark, S., R. Pitt, and P. Brown. CONFERENCE PAPER: *Effect of anaerobiosis on filter media pollutant retention*. in *Proceedings of an Engineering Foundation Conference on: Linking Stormwater BMP Designs and Performance to Receive Water Impact Mitigation, Aug 19-24 2001*. 2002. Snowmass Village, CO, United States: American Society of Civil Engineers.
1107. Schroeder, W.H., M.D. Cheng, C.J. Lin, and A. Steffen. CONFERENCE PAPER: *Atmospheric pathways for the introduction of mercury into the arctic environment/biosphere*. in *2nd AMAP International Symposium on Environmental Pollution of the Arctic*. 2002. Rovaniemi, Finland.
1108. Wilbanks, T.J. CONFERENCE PAPER: *Geographic scaling issues in integrated assessments of climate change*. in *2nd Integrated Assessment*. 2002. Mechelen, Netherlands: Swets & Zeitlinger.

#### 2002 Electronic Sources

1109. Cushman, R.M., T.A. Boden, L.A. Hook, S.B. Jones, D.P. Kaiser, A. Kozyr, and T.R. Nelson, ELECTRONIC SOURCE: *Carbon Dioxide Information Analysis Center and World Data Center for Atmospheric Trace Gases Fiscal Year 2001 Annual Report*. 2002, Oak Ridge National Laboratory
1110. Hazen, T. and T.J. Phelps, ELECTRONIC SOURCE: electronic journal: *Reducing boron toxicity by microbial sequestration*. 2002, U.S. Dept. of Energy journal of undergraduate research
1111. Salk, M.S., ELECTRONIC SOURCE: Web document: *Wetlands of the Oak Ridge Reservation*. 2002, Oak Ridge National Laboratory
1112. Salk, M.S., ELECTRONIC SOURCE: Web document: *Research on the Oak Ridge Reservation*. 2002, Oak Ridge National Laboratory

#### 2002 Journal Articles

1113. Adams, S.M., W.R. Hill, M.J. Peterson, M.G. Ryon, J.G. Smith, and A.J. Stewart, Ecol. Appl. ARTICLE: *Assessing recovery in a stream ecosystem: Applying multiple chemical and biological endpoints*. Ecol. Appl., 2002. **12**(5): p. 1510-1527.
1114. Adapa, P.K., G.J. Schoenau, and S. Sokhansanj, Int. J. Energ. Res. ARTICLE: *Performance study of a heat pump dryer system for specialty crops - Part 1: Development of a simulation model*. Int. J. Energ. Res., 2002. **26**(11): p. 1001-1019.
1115. Adapa, P.K., G.J. Schoenau, and S. Sokhansanj, Int. J. Energ. Res. ARTICLE: *Performance study of a heat pump drying system for specialty crops--part 2*. Int. J. Energ. Res., 2002. **26**(11): p. 1021-1033.
1116. Adapa, P.K., L.G. Tabil, G.J. Schoenau, B. Crerar, and S. Sokhansanj, Powder Handl Process ARTICLE: *Compression characteristics of fractionated alfalfa grinds*. Powder Handl Process, 2002. **14**(4): p. 252-259.
1117. Adapa, P.K., S. Sokhansanj, and G.J. Schoenau, Drying Technol. ARTICLE: *Performance*

- study of a re-circulating cabinet dryer using a household dehumidifier.* Drying Technol., 2002. **20**(8): p. 1673-1689.
1118. Bae, J.W., S.K. Rhee, A. Jang, I.S. Kim, and S.T. Lee, J. Microbiol. Biotechnol. ARTICLE: *Copper ion toxicity causes discrepancy between acetate degradation and methane production in granular sludge.* J. Microbiol. Biotechnol., 2002. **12**(5): p. 849-853.
1119. Bae, J.W., S.K. Rhee, I.S. Kim, S.H. Hyun, and S.T. Lee, J. Microbiol. Biotechnol. ARTICLE: *Increased microbial resistance to toxic wastewater by sludge granulation in upflow anaerobic sludge blanket reactor.* J. Microbiol. Biotechnol., 2002. **12**(6): p. 901-908.
1120. Barnett, M.O., P.M. Jardine, and S.C. Brooks, Environ. Sci. Technol. ARTICLE: *U(VI) adsorption to heterogeneous subsurface media: Application of a surface complexation model.* Environ. Sci. Technol., 2002. **36**(5): p. 937-942.
1121. Beliaev, A.S., D.K. Thompson, M.W. Fields, L.Y. Wu, D.P. Lies, K.H. Neilson, and J.Z. Zhou, J. Bacteriol. ARTICLE: *Microarray transcription profiling of a Shewanella oneidensis etrA mutant.* J. Bacteriol., 2002. **184**(16): p. 4612-4616.
1122. Bevelhimer, M.S., J. Appl. Ichthyol. ARTICLE: *A bioenergetics model for white sturgeon Acipenser transmontanus: assessing differences in growth and reproduction among Snake River reaches.* J. Appl. Ichthyol., 2002. **18**(4-6): p. 550-556.
1123. Bostick, B.C., S. Fendorf, M.O. Barnett, P.M. Jardine, and S.C. Brooks, Soil Sci. Soc. Am. J. ARTICLE: *Uranyl surface complexes formed on subsurface media from DOE facilities.* Soil Sci. Soc. Am. J., 2002. **66**(1): p. 99-108.
1124. Brooks, S.C. and S.L. Carroll, Journal of Contaminant Hydrology ARTICLE: *pH-dependent fate and transport of NTA-complexed cobalt through undisturbed cores of fractured shale saprolite.* Journal of Contaminant Hydrology, 2002. **58**(3-4): p. 191-207.
1125. Callahan, M.A., A.J. Stewart, C. Alarcon, and S.J. McMillen, Environ. Toxicol. Chem. ARTICLE: *Effects of earthworm (Eisenia fetida) and wheat (Triticum aestivum) straw additions on selected properties of petroleum-contaminated soils.* Environ. Toxicol. Chem., 2002. **21**(8): p. 1658-1663.
1126. Carrier, J.D., T. Cowe, S. Sokhansanj, J. Wahab, and B. Barl, J. Herbs, Spices Med. Plants ARTICLE: *Milk Thistle (silybum marianum L. Gaertn) flower head development and associated marker compound profile.* J. Herbs, Spices Med. Plants, 2002. **10**(1): p. 65-74.
1127. Chen, J., B. Gu, E.J. LeBoeuf, H. Pan, and S. Dai, Chemosphere ARTICLE: *Spectroscopic characterization of the structural and functional properties of natural organic matter fractions.* Chemosphere, 2002. **48**(1): p. 59-68.
1128. Cheng, M.D. and R.L. Tanner, Atmos. Environ. ARTICLE: *Characterization of ultrafine and fine particles at a site near the Great Smoky Mountains National Park.* Atmos. Environ., 2002. **36**(38): p. 5795-5806.
1129. Cheng, M.D., L. Karr, J. Kornuc, D. Staat, T. Wainman, B. Harre, and B. Sugiyama, Microchem J. ARTICLE: *Evaluation of aerosol lead measurement techniques using laboratory generated super-micrometer particles.* Microchem J., 2002. **72**(2): p. 209-219.
1130. Cheng, M.D., J.M. Storey, T. Wainman, and T. Dam, J. Aerosol. Sci. ARTICLE: *Impacts of venturi turbulent mixing on the size distributions of sodium chloride and dioctyl-phthalate aerosols.* J. Aerosol. Sci., 2002. **33**(3): p. 491-502.
1131. Cheng, M.-D. and R.L. Tanner, Atmospheric Environment ARTICLE: *Characterization of ultrafine and fine particles at a site near the Great Smoky Mountains National Park.* Atmospheric Environment, 2002. **36**(38): p. 5795-5806.
1132. Cheng, M.-D., J.M. Storey, T. Wainman, and T. Dam, Journal of Aerosol Science ARTICLE: *Impacts of venturi turbulent mixing on the size distributions of sodium chloride and dioctyl-phthalate aerosols.* Journal of Aerosol Science, 2002. **33**(3): p. 491-502.
1133. Curtis, P.S., P.J. Hanson, P. Bolstad, C. Barford, J.C. Randolph, H.P. Schmid, and K.B. Wilson, Agric. For. Meteorol. ARTICLE: *Biometric and eddy-covariance based estimates of annual carbon storage in five eastern North American deciduous forests.* Agric. For. Meteorol., 2002. **113**(1-4): p. 3-19.

1134. Cushman, R.M. and S.B. Jones, Environ. Manage. ARTICLE: *The relative importance of sources of greenhouse-gas emissions: Comparison of global through subnational perspectives*. Environ. Manage., 2002. **29**(3): p. 360-372.
1135. Dale, V.H., S.C. Beyeler, and B.L. Jackson, Ecol. Indicators ARTICLE: *Understory vegetation indicators of anthropogenic disturbance in longleaf pine forests at Fort Benning, Georgia, USA*. Ecol. Indicators, 2002. **1**(3): p. 155-170.
1136. Davidson, E.A., K. Savage, P. Bolstad, D.A. Clark, P.S. Curtis, D.S. Ellsworth, P.J. Hanson, B.E. Law, Y. Luo, K.S. Pregitzer, J.C. Randolph, and D. Zak, Agr. Forest Meteorol. ARTICLE: *Belowground carbon allocation in forests estimated from litterfall and IRGA-based soil respiration measurements*. Agr. Forest Meteorol., 2002. **113**(1-4): p. 39-51.
1137. Dehal, P., Y. Satou, R.K. Campbell, J. Chapman, B. Degnan, A. De Tomaso, B. Davidson, A. Di Gregorio, M. Gelpke, D.M. Goodstein, N. Harafuji, K.E.M. Hastings, I. Ho, K. Hotta, W. Huang, T. Kawashima, P. Lemaire, D. Martinez, I.A. Meinertzhagen, S. Necula, M. Nonaka, N. Putnam, S. Rash, H. Saiga, M. Satake, A. Terry, L. Yamada, H.G. Wang, S. Awazu, K. Azumi, J. Boore, M. Branno, S. Chin-bow, R. DeSantis, S. Doyle, P. Francino, D.N. Keys, S. Haga, H. Hayashi, K. Hino, K.S. Imai, K. Inaba, S. Kano, K. Kobayashi, M. Kobayashi, B.I. Lee, K.W. Makabe, C. Manohar, G. Matassi, M. Medina, Y. Mochizuki, S. Mount, T. Morishita, S. Miura, A. Nakayama, S. Nishizaka, H. Nomoto, F. Ohta, K. Oishi, I. Rigoutsos, M. Sano, A. Sasaki, Y. Sasakura, E. Shoguchi, T. Shin-i, A. Spagnuolo, D. Stainier, M.M. Suzuki, O. Tassy, N. Takatori, M. Tokuoka, K. Yagi, F. Yoshizaki, S. Wada, C. Zhang, P.D. Hyatt, F. Larimer, C. Detter, N. Doggett, T. Glavina, T. Hawkins, P. Richardson, S. Lucas, Y. Kohara, M. Levine, N. Satoh, and D.S. Rokhsar, Science ARTICLE: *The draft genome of *Ciona intestinalis*: Insights into chordate and vertebrate origins*. Science, 2002. **298**(5601): p. 2157-2167.
1138. Dodds, W.K., A.J. Lopez, W.B. Bowden, S. Gregory, N.B. Grimm, S.K. Hamilton, A.E. Hershey, E. Marti, W.H. McDowell, J.L. Meyer, D. Morrall, P.J. Mulholland, B.J. Peterson, J.L. Tank, H.M. Valett, J.R. Webster, and W. Wollheim, J. N. Am. Benthol. Soc. ARTICLE: *N uptake as a function of concentration in streams*. J. N. Am. Benthol. Soc., 2002. **21**(2): p. 206-220.
1139. Edwards, N.T., T.J. Tschaplinski, and R.J. Norby, New Phytol. ARTICLE: *Stem respiration increases in CO<sub>2</sub>-enriched sweetgum trees*. New Phytol., 2002. **155**(2): p. 239-248.
1140. Ehman, J.L., H.P. Schmid, C.S.B. Grimmond, J.C. Randolph, P.J. Hanson, C.A. Wayson, and F.D. Cropley, Glob. Change Biol. ARTICLE: *An initial intercomparison of micrometeorological and ecological inventory estimates of carbon exchange in a mid-latitude deciduous forest*. Glob. Change Biol., 2002. **8**(6): p. 575-589.
1141. Feely, R.A., C.L. Sabine, K. Lee, F.J. Millero, M.F. Lamb, D. Greeley, J.L. Bullister, R.M. Key, T.H. Peng, A. Kozyr, T. Ono, and C.S. Wong, Glob. Biogeochem. Cycle ARTICLE: *In situ calcium carbonate dissolution in the Pacific Ocean*. Glob. Biogeochem. Cycle, 2002. **16**(4): p. art. no.-1144.
1142. Findlay, S., J. Tank, S. Dye, H.M. Valett, P.J. Mulholland, W.H. McDowell, S.L. Johnson, S.K. Hamilton, J. Edmonds, W.K. Dodds, and W.B. Bowden, Microb. Ecol. ARTICLE: *A cross-system comparison of bacterial and fungal biomass in detritus pools of headwater streams*. Microb. Ecol., 2002. **43**(1): p. 55-66.
1143. Garten, C.T. and T.L. Ashwood, Glob. Biogeochem. Cycle. ARTICLE: *Landscape level differences in soil carbon and nitrogen: Implications for soil carbon sequestration*. Glob. Biogeochem. Cycle., 2002. **16**(4).
1144. Garten, C.T., Biomass Bioenerg. ARTICLE: *Soil carbon storage beneath recently established tree plantations in Tennessee and South Carolina, USA*. Biomass Bioenerg., 2002. **23**(2): p. 93-102.
1145. Garten Jr., C.T., Biomass and Bioenergy ARTICLE: *Soil carbon storage beneath recently established tree plantations in Tennessee and South Carolina, USA*. Biomass and Bioenergy, 2002. **23**(2): p. 93-102.
1146. Gu, B.H., D.B. Watson, L.Y. Wu, D.H. Phillips, D.C. White, and J.Z. Zhou, Environ. Monit.

- Assess. ARTICLE: *Microbiological characteristics in a zero-valent iron reactive barrier*. Environ. Monit. Assess., 2002. **77**(3): p. 293-309.
1147. Gu, B., D.B. Watson, L. Wu, D.H. Phillips, D.C. White, and J. Zhou, Environ. Monit. Assess. ARTICLE: *Microbiological characteristics in a zero-valent iron reactive barrier*. Environ. Monit. Assess., 2002. **77**(3): p. 293-309.
1148. Gunderson, C.A., J.D. Sholtis, S.D. Wullschleger, D.T. Tissue, P.J. Hanson, and R.J. Norby, Plant Cell Environ. ARTICLE: *Environmental and stomatal control of photosynthetic enhancement in the canopy of a sweetgum (Liquidambar styraciflua L.) plantation during 3 years of CO<sub>2</sub> enrichment*. Plant Cell Environ., 2002. **25**(3): p. 379-393.
1149. Gwo, J.P., M.A. Mayes, and P.M. Jardine, Geochim. Cosmochim. Acta ARTICLE: *Reactive transport in fractured saprolite: Determining diffusive mass transfer and surface reaction kinetics parameters*. Geochim. Cosmochim. Acta, 2002. **66**(15A): p. A300-A300.
1150. Hao, Y., R. Lal, L.B. Owens, R.C. Izaurralde, W.M. Post, and D.L. Hotheim, Soil Tillage Res. ARTICLE: *Effect of cropland management and slope position on soil organic carbon pool at the North Appalachian Experimental Watersheds*. Soil Tillage Res., 2002. **68**(2): p. 133-142.
1151. Hargrove, W.W., F.M. Hoffman, and P.M. Schwartz, Conserv. Ecol. ARTICLE: *A fractal landscape realizer for generating synthetic maps*. Conserv. Ecol., 2002. **6**(1).
1152. Hill, W.R. and S.M. Dlmick, Freshwat. Biol. ARTICLE: *Effects of riparian leaf dynamics on periphyton photosynthesis and light utilisation efficiency*. Freshwat. Biol., 2002. **47**(7): p. 1245-1256.
1153. Hintelmann, H., R. Harris, A. Heyes, J.P. Hurley, C.A. Kelly, D.P. Krabbenhoft, S. Lindberg, J.W.M. Rudd, K.J. Scott, and V.L. St Louis, Environ. Sci. Technol. ARTICLE: *Reactivity and mobility of new and old mercury deposition in a Boreal forest ecosystem during the first year of the METAALICUS study*. Environ. Sci. Technol., 2002. **36**(23): p. 5034-5040.
1154. Huff, D.D., W.W. Hargrove, R. Graham, N. Nikolov, and M.L. Tharp, Environ. Manage. ARTICLE: *A GIS/simulation framework for assessing change in water yield over large spatial scales*. Environ. Manage., 2002. **29**(2): p. 164-181.
1155. Jardine, P.M., T.L. Mehlhorn, I.L. Larsen, W.B. Bailey, S.C. Brooks, Y. Roh, and J.P. Gwo, J. Contam. Hydrol. ARTICLE: *Influence of hydrological and geochemical processes on the transport of chelated metals and chromate in fractured shale bedrock*. J. Contam. Hydrol., 2002. **55**(1-2): p. 137-159.
1156. Johnson, D.W., P.J. Hanson, and D.E. Todd, J. Environ. Qual. ARTICLE: *The effects of throughfall manipulation on soil leaching in a deciduous forest*. J. Environ. Qual., 2002. **31**(1): p. 204-216.
1157. Kabganian, R., D.J. Carrier, and S. Sokhansanj, Dry. Technol. ARTICLE: *Physical characteristics and drying rate of Echinacea root*. Dry. Technol., 2002. **20**(3): p. 637-649.
1158. Kabganian, R., J.D. Carrier, and S. Sokhansanj, J. Herbs, Spices Med. Plants ARTICLE: *Drying of Echniacea angustifolia roots*. J. Herbs, Spices Med. Plants, 2002. **10**(1): p. 11-18.
1159. Kaiser, D.P. and Y. Qian, Geophysical Research Letters ARTICLE: *Decreasing trends in sunshine duration over China for 1954-1998: Indication of increased haze pollution?* Geophysical Research Letters, 2002. **29**(21): p. 38-1.
1160. King, A.W. and K.A. With, Ecol. Model. ARTICLE: *Dispersal success on spatially structured landscapes: when do spatial pattern and dispersal behavior really matter?* Ecol. Model., 2002. **147**(1): p. 23-39.
1161. Kopp, R.F., L.B. Smart, C.A. Maynard, G.A. Tuskan, and L.P. Abrahamson, Theoretical and Applied Genetics ARTICLE: *Predicting within-family variability in juvenile height growth of Salix based upon similarity among parental AFLP fingerprints*. Theoretical and Applied Genetics, 2002. **105**(1): p. 106-112.
1162. Korte, N.E., O.R. West, L. Liang, B. Gu, J.L. Zutman, and Q. Fernando, Waste Manage. ARTICLE: *The effect of solvent concentration on the use of palladized-iron for the step-wise dechlorination of polychlorinated biphenyls in soil extracts*. Waste Manage., 2002. **22**(3): p. 343-349.

1163. Kurbanov, E.A. and W.M. Post, *Clim. Change* ARTICLE: *Changes in area and carbon in forests of the Middle Zavolgie: a regional case study of Russian forests*. *Clim. Change*, 2002. **55**(1-2): p. 157-173.
1164. Lamb, M.F., C.L. Sabine, R.A. Feely, R. Wanninkhof, R.M. Key, G.C. Johnson, F.J. Millero, K. Lee, T.H. Peng, A. Kozyr, J.L. Bullister, D. Greeley, R.H. Byrne, D.W. Chipman, A.G. Dickson, C. Goyet, P.R. Guenther, M. Ishii, K.M. Johnson, C.D. Keeling, T. Ono, K. Shitashima, B. Tilbrook, T. Takahashi, D.W.R. Wallace, Y.W. Watanabe, C. Winn, and C.S. Wong, *Deep-Sea Res. Part II-Top. Stud. Oceanogr.* ARTICLE: *Consistency and synthesis of Pacific Ocean CO<sub>2</sub> survey data*. *Deep-Sea Res. Part II-Top. Stud. Oceanogr.*, 2002. **49**(1-3): p. 21-58.
1165. Law, B.E., E. Falge, L. Gu, D.D. Baldocchi, P. Bakwin, P. Berbigier, K. Davis, A.J. Dolman, M. Falk, J.D. Fuentes, A. Goldstein, A. Granier, A. Grelle, D. Hollinger, I.A. Janssens, P. Jarvis, N.O. Jensen, G. Katul, Y. Mahli, G. Matteucci, T. Meyers, R. Monson, W. Munger, W. Oechel, R. Olson, K. Pilegaard, K.T. Paw, H. Thorgeirsson, R. Valentini, S. Verma, T. Vesala, K. Wilson, and S. Wofsy, *Agric. For. Meteorol.* ARTICLE: *Environmental controls over carbon dioxide and water vapor exchange of terrestrial vegetation*. *Agric. For. Meteorol.*, 2002. **113**(1-4): p. 97-120.
1166. Li, Y.L., J. Yang, C.L.L. Zhang, B.L. Deng, and T.J. Phelps, *Geochim. Cosmochim. Acta* ARTICLE: *Dissolution of iron-rich clay and sulfur sequestration by a sulfate-reducing bacterium*. *Geochim. Cosmochim. Acta*, 2002. **66**(15A): p. A453-A453.
1167. Limburg, K.E., R.V. O'Neill, R. Costanza, and S. Farber, *Ecol. Econ.* ARTICLE: *Complex systems and valuation*. *Ecol. Econ.*, 2002. **41**(3): p. 409-420.
1168. Lin, C.-J., S.E. Lindberg, S. Brooks, K.J. Scott, M.S. Landis, R.K. Stevens, M. Goodsite, and A. Richter, *Environ. Sci. Technol.* ARTICLE: *Dynamic oxidation of gaseous mercury in the arctic troposphere at polar sunrise*. *Environ. Sci. Technol.*, 2002. **36**(6): p. 1245-1256.
1169. Lindberg, S.E., S. Brooks, C.J. Lin, K.J. Scott, M.S. Landis, R.K. Stevens, M. Goodsite, and A. Richter, *Environ. Sci. Technol.* ARTICLE: *Dynamic oxidation of gaseous mercury in the Arctic troposphere at polar sunrise*. *Environ. Sci. Technol.*, 2002. **36**(6): p. 1245-1256.
1170. Lindberg, S.E., W. Dong, and T. Meyers, *Atmos. Environ.* ARTICLE: *Transpiration of gaseous elemental mercury through vegetation in a subtropical wetland in Florida*. *Atmos. Environ.*, 2002. **36**(33): p. 5207-5219.
1171. Lindberg, S.E., W.J. Dong, and T. Meyers, *Atmos. Environ.* ARTICLE: *Transpiration of gaseous elemental mercury through vegetation in a subtropical wetland in Florida*. *Atmos. Environ.*, 2002. **36**(33): p. 5207-5219.
1172. Lindberg, S.E., H. Zhang, A.F. Vette, M.S. Gustin, M.O. Barnett, and T. Kuiken, *Atmos. Environ.* ARTICLE: *Dynamic flux chamber measurement of gaseous mercury emission fluxes over soils: Part 2 - effect of flushing flow rate and verification of a two-resistance exchange interface simulation model*. *Atmos. Environ.*, 2002. **36**(5): p. 847-859.
1173. Luxmoore, R.J., W.W. Hargrove, M.L. Tharp, W. Mac Post, M.W. Berry, K.S. Minser, W.P. Cropper, D.W. Johnson, B. Zeide, R.L. Amateis, H.E. Burkhart, V.C. Baldwin, and K.D. Peterson, *For. Ecol. Manage.* ARTICLE: *Addressing multi-use issues in sustainable forest management with signal-transfer modeling*. *For. Ecol. Manage.*, 2002. **165**(1-3): p. 295-304.
1174. Marsik, F.J., G.J. Keeler, S.E. Lindberg, and H. Zhang, *Abstr. Pap. Am. Chem. Soc.* ARTICLE: *Air-surface exchange of elemental mercury over a mixed sawgrass-cattail stand within the Florida Everglades*. *Abstr. Pap. Am. Chem. Soc.*, 2002. **223**: p. U523-U523.
1175. Martin, R.C., D.C. Glasgow, and M.Z. Martin, *Abstr. Pap. Am. Chem. Soc.* ARTICLE: *Heavy element production and chemical applications at the Radiochemical Engineering Development Center*. *Abstr. Pap. Am. Chem. Soc.*, 2002. **223**: p. B150-B150.
1176. McLaughlin, S.B., D. Ugarte, C.T. Garten, L.R. Lynd, M.A. Sanderson, V.R. Tolbert, and D.D. Wolf, *Environ. Sci. Technol.* ARTICLE: *High-value renewable energy from prairie grasses*. *Environ. Sci. Technol.*, 2002. **36**(10): p. 2122-2129.
1177. Metting, F.B., G.K. Jacobs, J.S. Amthor, and R. Dahlman, *Abstr. Pap. Am. Chem. Soc.* ARTICLE: *Terrestrial carbon sequestration potential*. *Abstr. Pap. Am. Chem. Soc.*, 2002. **223**:

p. U561-U561.

1178. Mulholland, P.J., J.L. Tank, J.R. Webster, W.B. Bowden, W.K. Dodds, S.V. Gregory, N.B. Grimm, S.K. Hamilton, S.L. Johnson, E. Marti, W.H. McDowell, J.L. Merriam, J.L. Meyer, B.J. Peterson, H.M. Valett, and W.M. Wollheim, J. N. Am. Benthol. Soc. ARTICLE: *Can uptake length in streams be determined by nutrient addition experiments? Results from an interbiome comparison study*. J. N. Am. Benthol. Soc., 2002. **21**(4): p. 544-560.
1179. Navar, J., E. Mendez, and V. Dale, Ann. For. Sci. ARTICLE: *Estimating stand biomass in the Tamaulipan thornscrub of northeastern Mexico*. Ann. For. Sci., 2002. **59**(8): p. 813-821.
1180. Norby, R.J., P.J. Hanson, E.G. O'Neill, T.J. Tschaplinski, J.F. Weltzin, R.A. Hansen, W.X. Cheng, S.D. Wullschleger, C.A. Gunderson, N.T. Edwards, and D.W. Johnson, Ecol. Appl. ARTICLE: *Net primary productivity of a CO<sub>2</sub>-enriched deciduous forest and the implications for carbon storage*. Ecol. Appl., 2002. **12**(5): p. 1261-1266.
1181. Parker, J.C., Ground Water Monit. Remediat. ARTICLE: *Modeling volatile chemical transport, biodecay, and emission to indoor air*. Ground Water Monit. Remediat., 2002. **23**(1): p. 107-120.
1182. Peterson, M.J., J.G. Smith, G.R. Southworth, M.G. Ryon, and G.K. Eddlemon, Environ. Monit. Assess. ARTICLE: *Trace element contamination in benthic macroinvertebrates from a small stream near a uranium mill tailings site*. Environ. Monit. Assess., 2002. **74**(2): p. 193-208.
1183. Phelps, T.J., A.V. Palumbo, and A.S. Beliaev, Curr. Opin. Biotechnol. ARTICLE: *Metabolomics and microarrays for improved understanding of phenotypic characteristics controlled by both genomics and environmental constraints*. Curr. Opin. Biotechnol., 2002. **13**(1): p. 20-24.
1184. Pielke, R.A., G. Marland, R.A. Betts, T.N. Chase, J.L. Eastman, J.O. Niles, D.D.S. Niyogi, and S.W. Running, Philos. Trans. R. Soc. Lond. Ser. A-Math. Phys. Eng. Sci. ARTICLE: *The influence of land-use change and landscape dynamics on the climate system: relevance to climate-change policy beyond the radiative effect of greenhouse gases*. Philos. Trans. R. Soc. Lond. Ser. A-Math. Phys. Eng. Sci., 2002. **360**(1797): p. 1705-1719.
1185. Powers, L.G., H.J. Mills, A.V. Palumbo, C.L. Zhang, K. Delaney, and P.A. Sobecky, FEMS Microbiol. Ecol. ARTICLE: *Introduction of a plasmid-encoded *phoA* gene for constitutive overproduction of alkaline phosphatase in three subsurface *Pseudomonas* isolates*. FEMS Microbiol. Ecol., 2002. **41**(2): p. 115-123.
1186. Ratnayeke, S., G.A. Tuskan, and M.R. Pelton, Mol. Ecol. ARTICLE: *Genetic relatedness and female spatial organization in a solitary carnivore, the raccoon, *Procyon lotor**. Mol. Ecol., 2002. **11**(6): p. 1115-1124.
1187. Rea, A.W., S.E. Lindberg, T. Scherbatskoy, and G.J. Keeler, Water Air Soil Pollut. ARTICLE: *Mercury accumulation in foliage over time in two northern mixed-hardwood forests*. Water Air Soil Pollut., 2002. **133**(1-4): p. 49-67.
1188. Riitters, K.H., J.D. Wickham, R.V. O'Neill, K.B. Jones, E.R. Smith, J.W. Coulston, T.G. Wade, and J.H. Smith, Ecosystems ARTICLE: *Fragmentation of continental United States forests*. Ecosystems, 2002. **5**(8): p. 815-822.
1189. Roh, Y., S.V. Liu, G. Li, H.S. Huang, T.J. Phelps, and J. Zhou, Appl. Environ. Microbiol. ARTICLE: *Isolation and Characterization of Metal-Reducing *Thermoanaerobacter* Strains from Deep Subsurface Environments of the Piceance Basin, Colorado*. Appl. Environ. Microbiol., 2002. **68**(12): p. 6013-6020.
1190. Roh, Y., S.V. Liu, G.S. Li, H.S. Huang, T.J. Phelps, and J.Z. Zhou, Appl. Environ. Microbiol. ARTICLE: *Isolation and characterization of metal-reducing *Thermoanaerobacter* strains from deep subsurface environments of the Piceance Basin, Colorado*. Appl. Environ. Microbiol., 2002. **68**(12): p. 6013-6020.
1191. Roh, Y., S.V. Liu, G. Li, H. Huang, T.J. Phelps, and J. Zhou, Applied and Environmental Microbiology ARTICLE: *Isolation and characterization of metal-reducing *Thermoanaerobacter* strains from deep subsurface environments of the Piceance Basin, Colorado*. Applied and Environmental Microbiology, 2002. **68**(12): p. 6013-6020.
1192. Ryon, M.G., A.J. Stewart, L.A. Kszos, and T.L. Phipps, Water Air Soil Pollut. ARTICLE: *Impacts on streams from the use of sulfur-based compounds for dechlorinating industrial*



- effluents. *Water Air Soil Pollut.*, 2002. **136**(1-4): p. 255-268.
1193. Salem, A., D. Ravat, T.J. Gamey, and K. Ushijima, *J. Appl. Geophys.* ARTICLE: *Analytic signal approach and its applicability in environmental magnetic investigations.* *J. Appl. Geophys.*, 2002. **49**(4): p. 231-244.
1194. Scurlock, J.M.O. and R.J. Olson, *Environ. Reviews* ARTICLE: *Terrestrial net primary productivity -- a brief history and a new worldwide database.* *Environ. Reviews*, 2002. **10**(2): p. 91-109.
1195. Scurlock, J.M.O., K. Johnson, and R.J. Olson, *Glob. Change Biol.* ARTICLE: *Estimating net primary productivity from grassland biomass dynamics measurements.* *Glob. Change Biol.*, 2002. **8**(8): p. 736-753.
1196. Scurlock, J.M.O. and R.J. Olson, *Environ. Reviews* ARTICLE: *Terrestrial net primary productivity - A brief history and a new worldwide database.* *Environ. Reviews*, 2002. **10**(2): p. 91-109.
1197. Sewell, M.M., M.F. Davis, G.A. Tuskan, N.C. Wheeler, C.C. Elam, D.L. Bassoni, and D.B. Neale, *Theor. Appl. Genet.* ARTICLE: *Identification of QTLs influencing wood property traits in loblolly pine (Pinus taeda L.). II. Chemical wood properties.* *Theor. Appl. Genet.*, 2002. **104**(2-3): p. 214-222.
1198. Shevenell, L. and J.F. McCarthy, *J. Hydrol.* ARTICLE: *Effects of precipitation events on colloids in a karst aquifer.* *J. Hydrol.*, 2002. **255**(1-4): p. 50-68.
1199. Sokhansanj, S. and A.R. Turhollow, *Appl. Eng. Agric.* ARTICLE: *Baseline cost for corn stover collection.* *Appl. Eng. Agric.*, 2002. **18**(5): p. 525-530.
1200. Sokhansanj, S., A. Turhollow, J. Cushman, and J. Cundiff, *Biomass and Bioenergy* ARTICLE: *Engineering aspects of collecting corn stover for bioenergy.* *Biomass and Bioenergy*, 2002. **23**(5): p. 347-355.
1201. Southworth, G.R., M.J. Peterson, and M.A. Bogle, *Chemosphere* ARTICLE: *Effect of point source removal on mercury bioaccumulation in an industrial pond.* *Chemosphere*, 2002. **49**(5): p. 455-460.
1202. Stevens, A., Y. Wang, K. Bremer, J. Zhang, R. Hoepfner, M. Antoniou, D.R. Schoenberg, and L.E. Maquat, *Proc. Natl. Acad. Sci. U. S. A.* ARTICLE: *beta-Globin mRNA decay in erythroid cells: UG site-preferred endonucleolytic cleavage that is augmented by a premature termination codon.* *Proc. Natl. Acad. Sci. U. S. A.*, 2002. **99**(20): p. 12741-12746.
1203. Thompson, D.K., A.S. Beliaev, C.S. Giometti, S.L. Tollaksen, T. Khare, D.P. Lies, K.H. Neilson, J. Lim, J. Yates, C.C. Brandt, J.M. Tiedje, and J.Z. Zhou, *Appl. Environ. Microb.* ARTICLE: *Transcriptional and proteomic analysis of a ferric uptake regulator (fur) mutant of Shewanella oneidensis: Possible involvement of fur in energy metabolism, transcriptional regulation, and oxidative stress.* *Appl. Environ. Microb.*, 2002. **68**(2): p. 881-892.
1204. Tiquia, S.M., J.H.C. Wan, and N.F.Y. Tam, *Compost Science and Utilization* ARTICLE: *Microbial population dynamics and enzyme activities during composting.* *Compost Science and Utilization*, 2002. **10**(2): p. 150-161.
1205. Tissue, D.T., J.D. Lewis, S.D. Wullschleger, J.S. Amthor, K.L. Griffin, and R. Anderson, *Tree Physiol.* ARTICLE: *Leaf respiration at different canopy positions in sweetgum (Liquidambar styraciflua) grown in ambient and elevated concentrations of carbon dioxide in the field.* *Tree Physiol.*, 2002. **22**(15-16): p. 1157-1166.
1206. Tolbert, V.R., D.E. Todd, L.K. Mann, C.M. Jawdy, D.A. Mays, R. Malik, W. Bandaranayake, A. Houston, D. Tyler, and D.E. Pettry, *Environ. Pollut.* ARTICLE: *Changes in soil quality and below-ground carbon storage with conversion of traditional agricultural crop lands to bioenergy crop production.* *Environ. Pollut.*, 2002. **116**: p. S97-S106.
1207. Tonn, B.E. and E. Ogle, *Futures* ARTICLE: *A vision for communities in the 21st century: back to the future.* *Futures*, 2002. **34**(8): p. 717-734.
1208. Tran, L.T., C.G. Knight, R.V. O'Neill, E.R. Smith, K.H. Riitters, and J. Wickham, *Environ. Manage.* ARTICLE: *Fuzzy decision analysis for integrated environmental vulnerability assessment of the Mid-Atlantic region.* *Environ. Manage.*, 2002. **29**(6): p. 845-859.

1209. Tuskan, G.A., J. Ledford, M. Paulus, D. West, and R. Wimmer, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Micro cat scan: A method for direct measurement of cell dimensions*. Abstr. Pap. Am. Chem. Soc., 2002. **223**: p. U136-U136.
1210. Van der Hoven, S.J., D.K. Solomon, and G.R. Moline, J. Hydrol. ARTICLE: *Numerical simulation of unsaturated flow along preferential pathways: implications for the use of mass balance calculations for isotope storm hydrograph separation*. J. Hydrol., 2002. **268**(1-4): p. 214-233.
1211. Wallschlager, D., H.H. Kock, W.H. Schroeder, S.E. Lindberg, R. Ebinghaus, and R.D. Wilken, Water Air Soil Pollut ARTICLE: *Estimating gaseous mercury emissions from contaminated floodplain soils to the atmosphere with simple field measurement techniques*. Water Air Soil Pollut, 2002. **135**(1-4): p. 39-54.
1212. Wang, W., Abstr. Pap. Am. Chem. Soc. ARTICLE: *Alternatively hydrophilic metal nanoparticle and hydrophobic magnetic nanoparticle arrays formed in surfactant lyotropic lamellar phases*. Abstr. Pap. Am. Chem. Soc., 2002. **224**: p. U420-U420.
1213. Wang, W., Abstr. Pap. Am. Chem. Soc. ARTICLE: *Fabrication of tin sulfide nanoparticle arrays within organic-layered solid crystal of bis(alkylammonium) hexachlorostannates(IV)*. Abstr. Pap. Am. Chem. Soc., 2002. **224**: p. U421-U422.
1214. Wang, W. and B.H. Gu, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Preparation and characterization of high concentration monodisperse silver colloids*. Abstr. Pap. Am. Chem. Soc., 2002. **223**: p. U378-U378.
1215. Wang, W., B.H. Gu, W.A. Hamilton, D.J. Wesolowski, and L.Y. Liang, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Effects of solvent and surfactant on the formation and morphology of TiO<sub>2</sub> nanoparticles by thermal hydrolysis of TiCl<sub>4</sub> in acidic alcohol/aqueous media*. Abstr. Pap. Am. Chem. Soc., 2002. **223**: p. U615-U615.
1216. Wang, W., L.Y. Liang, W.A. Hamilton, P.D. Butler, and B.H. Gu, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Structure and distribution of a cationic surfactant at silica nanoparticle-water interface*. Abstr. Pap. Am. Chem. Soc., 2002. **223**: p. U616-U616.
1217. West, T.O. and W.M. Post, Soil Sci. Soc. Am. J. ARTICLE: *Soil organic carbon sequestration rates by tillage and crop rotation: a global analysis*. Soil Sci. Soc. Am. J., 2002. **66**: p. 1930-1946.
1218. West, T.O. and G. Marland, Agric. Ecosyst. Environ. ARTICLE: *A synthesis of carbon sequestration, carbon emissions, and net carbon flux in agriculture: comparing tillage practices in the United States*. Agric. Ecosyst. Environ., 2002. **91**(1-3): p. 217-232.
1219. West, T.O. and G. Marland, Environ. Pollut. ARTICLE: *Net carbon flux from agricultural ecosystems: methodology for full carbon cycle analyses*. Environ. Pollut., 2002. **116**(3): p. 439-444.
1220. West, T.O. and W.M. Post, Soil Sci. Soc. Am. J. ARTICLE: *Soil organic carbon sequestration rates by tillage and crop rotation: A global data analysis*. Soil Sci. Soc. Am. J., 2002. **66**(6): p. 1930-1946.
1221. West, O.R., C. Tsouris, L.Y. Liang, and S. Lee, Abstr. Pap. Am. Chem. Soc. ARTICLE: *Producing negatively buoyant CO<sub>2</sub> streams at intermediate ocean depths*. Abstr. Pap. Am. Chem. Soc., 2002. **223**: p. U565-U565.
1222. West, T.O. and M.K. Wali, Water Air Soil Pollut. ARTICLE: *Modeling regional carbon dynamics and soil erosion in disturbed and rehabilitated ecosystems as affected by land use and climate*. Water Air Soil Pollut., 2002. **138**(1-4): p. 141-163.
1223. Wickham, J.D., R.V. O'Neill, K.H. Riitters, E.R. Smith, T.G. Wade, and K.B. Jones, Ecol. Appl. ARTICLE: *Geographic targeting of increases in nutrient export due to future urbanization*. Ecol. Appl., 2002. **12**(1): p. 93-106.
1224. Wolfe, A.K. and D.J. Bjornstad, Crit. Rev. Plant Sci. ARTICLE: *Why would anyone object? An exploration of social aspects of phytoremediation acceptability*. Crit. Rev. Plant Sci., 2002. **21**(5): p. 429-438.
1225. Wolfe, A.K., D.J. Bjornstad, M. Russell, and N.D. Kerchner, Sci. Technol. Hum. Values

- ARTICLE: *A framework for analyzing dialogues over the acceptability of controversial technologies*. *Sci. Technol. Hum. Values*, 2002. **27**(1): p. 134-159.
1226. Wullschleger, S.D., C.A. Gunderson, P.J. Hanson, K.B. Wilson, and R.J. Norby, *New Phytol.* ARTICLE: *Sensitivity of stomatal and canopy conductance to elevated CO<sub>2</sub> concentration - interacting variables and perspectives of scale*. *New Phytol.*, 2002. **153**(3): p. 485-496.
1227. Wullschleger, S.D., T.J. Tschaplinski, and R.J. Norby, *Plant Cell Environ.* ARTICLE: *Plant water relations at elevated CO<sub>2</sub> - implications for water-limited environments*. *Plant Cell Environ.*, 2002. **25**(2): p. 319-331.
1228. Wullschleger, S.D., G.A. Tuskan, and S.P. Difazio, *Tree Physiology* ARTICLE: *Tree Physiol.* *Tree Physiology*, 2002. **22**(18): p. 1273-1276.
1229. Wullschleger, S.D., S. Jansson, and G. Taylor, *Plant Cell* ARTICLE: *Genomics and forest biology: Populus emerges as the perennial favorite*. *Plant Cell*, 2002. **14**(11): p. 2651-2655.
1230. Xu, D., G.S. Li, L.Y. Wu, J.Z. Zhou, and Y. Xu, *Bioinformatics* ARTICLE: *PRIMEGENS: robust and efficient design of gene-specific probes for microarray analysis*. *Bioinformatics*, 2002. **18**(11): p. 1432-1437.
1231. Yang, J.K., S. Sokhansanj, J. Tang, and P. Winter, *Biosyst. Eng.* ARTICLE: *Determination of thermal conductivity and specific heat of borage seeds*. *Biosyst. Eng.*, 2002. **82**(2): p. 169-176.
1232. Yang, J.K., M.O. Barnett, P.M. Jardine, N.T. Basta, and S.W. Casteel, *Environ. Sci. Technol.* ARTICLE: *Adsorption, sequestration, and bioaccessibility of As(V) in soils*. *Environ. Sci. Technol.*, 2002. **36**(21): p. 4562-4569.
1233. Yang, K.L., S. Yiacoymi, and C. Tsouris, *J. Chem. Phys.* ARTICLE: *Monte Carlo simulations of electrical double-layer formation in nanopores*. *J. Chem. Phys.*, 2002. **117**(18): p. 8499-8507.
1234. Yang, K.L., S. Yiacoymi, and C. Tsouris, *Nano Lett.* ARTICLE: *Proton adsorption and electrical double-layer formation inside charged platinum nanochannels*. *Nano Lett.*, 2002. **2**(12): p. 1433-1437.
1235. Yang, W., S. Sokhansanj, T.J. Siebenmorgen, and L. Howard, *Trans. ASAE* ARTICLE: *Development of a method for determining moisture diffusivity of alfalfa grind under surface condensation*. *Trans. ASAE*, 2002. **45**(6): p. 1919-1924.
1236. Ye, Q., M. Fields, J. Zhou, Y. Roh, T.J. Phelps, and C.L. Zhang, *Geochim. Cosmochim. Acta* ARTICLE: *Isolation of an alkaliphilic metal-reducing bacterium from a saline pond containing high concentrations of boron*. *Geochim. Cosmochim. Acta*, 2002. **66**(15A): p. A861-A861.
1237. Zhang, H., S.E. Lindberg, M.O. Barnett, A.F. Vette, and M.S. Gustin, *Atmospheric Environment* ARTICLE: *Dynamic flux chamber measurement of gaseous mercury emission fluxes over soils. Part 1: simulation of gaseous mercury emissions from soils using a two-resistance exchange interface model*. *Atmospheric Environment*, 2002. **36**(5): p. 835-846.
1238. Zhang, H. and S.E. Lindberg, *Water Air Soil Pollut.* ARTICLE: *Trends in dissolved gaseous mercury in the Tahquamenon River watershed and nearshore waters of Whitefish Bay in the Michigan Upper Peninsula*. *Water Air Soil Pollut.*, 2002. **133**(1-4): p. 381-391.
1239. Zhang, H., X.Q. Wang, F.J. Marsik, J. Lehman, X.H. Xu, J. Nriagu, G. Keeler, and S.E. Lindberg, *Abstr. Pap. Am. Chem. Soc.* ARTICLE: *Photochemodynamics of aquatic mercury in Saginaw Bay of Lake Huron (Michigan, USA)*. *Abstr. Pap. Am. Chem. Soc.*, 2002. **223**: p. U526-U526.
1240. Zhou, J.Z., B.C. Xia, D.S. Treves, L.Y. Wu, T.L. Marsh, R.V. O'Neill, A.V. Palumbo, and J.M. Tiedje, *Appl. Environ. Microbiol.* ARTICLE: *Spatial and resource factors influencing high microbial diversity in soil*. *Appl. Environ. Microbiol.*, 2002. **68**(1): p. 326-334.
1241. Zhou, J.Z. and D.K. Thompson, *Curr. Opin. Biotech.* ARTICLE: *Challenges in applying microarrays to environmental studies*. *Curr. Opin. Biotech.*, 2002. **13**(3): p. 204-207.
1242. Zhou, J., B. Xia, D.S. Treves, L.-Y. Wu, T.L. Marsh, R.V. O'Neill, A.V. Palumbo, and J.M. Tiedje, *Applied and Environmental Microbiology* ARTICLE: *Spatial and resource factors influencing high microbial diversity in soil*. *Applied and Environmental Microbiology*, 2002. **68**(1): p. 326-334.

## 2002 Patents

1243. Tsouris, C. and J. Dong, PATENT: Methods to control phase inversions and enhance mass transfer in liquid-liquid dispersions, December 17, 2002, 2002, Patent No.US 6,495,617

## 2002 Reports

1244. Begovich, C.L. and R.J. Luxmoore,REPORT: Some Sensitivity Studies of Chemical Transport Simulated in Models of the Soil-Plant-Litter System,ORNL/TM-6791.2002,
1245. Carnes, S.A., C.E. Easterly, R.L. Miller, R.M. Reed, G.K. Eddlemon, D.W. Lee, H.D. Quarles III, P.S. Robitaille, M. Schweitzer, A.L. Sjoreen, J.W. Terry, and G.P. Zimmerman,REPORT: Final environmental impact statement for the destruction of chemical munitions at Blue Grass Army Depot, Kentucky, Vols 1-2,Dec,2002,Aberdeen Proving Ground:U.S. Army, Program Manager for Chemical Demilitarization
1246. Cushman, R.M.,REPORT: Graduate Student Theses Supported by DOE's Environmental Sciences Division: Fiscal Year 2001 Update (February 2002),ORNL/CDIAC-136.2002,
1247. Das, S., J.H. Peretz, and B.E. Tonn,REPORT: Program Evaluation - Automotive Lightweighting Materials Program Research and Development Projects Assessment of Benefits - Case Studies No. 2,ORNL/TM-2002/181.2002,
1248. Drake, S.J., J.F. Weltzin, and P.D. Parr,REPORT: Assessment of nonnative invasive plants in the DOE Oak Ridge National Environmental Research Park,ORNL/TM-2001/113.Oct,2002,Oak Ridge, TN:Oak Ridge National Laboratory
1249. D'Urso, V.T.,REPORT: Home buyer search duration and the Internet,MIT Sloan School Working Paper no. 4271-02.Dec,2002,MIT
1250. Efroymsen, R.A.,REPORT: Total Risk Integrated Methodology. TRIM.FaTE technical support document. Vol. 1: description of module,EPA-453.Sept,2002,Research Triangle Park:EPA Office of Air Quality Planning and Standards
1251. Efroymsen, R.A.,REPORT: Total Risk Integrated Methodology. TRIM.FaTE technical support document. Vol. II: description of chemical transport and transformation algorithms,EPA-453.Sept,2002,Research Triangle Park:EPA Office of Air Quality Planning and Standards
1252. Hanson, P.J.,REPORT: TDE Model Intercomparison Project Data Archive,R02-115212.2002,
1253. Jones, D.W.,REPORT: The Macroeconomics of Oil Price Shocks,ORNL/TM-2002/243.2002,
1254. Jones, D.W.B., D.J.; Greer, L.A.,REPORT: Measurement Issues for Energy Efficient Commercial Buildings: Productivity and Performance Uncertainties,ORNL/TM-2002/105.2002,
1255. Jones, D.W.B., D.J.; Greer, L.A.,REPORT: Energy Efficiency, Building Productivity and the Commercial Buildings Market,ORNL/TM-2002/107.2002,
1256. Jones, D.W., D.J. Bjornstad, and L.A. Greer,REPORT: Making Energy-Efficiency and Productivity Investments in Commercial Buildings: Choice of Investment Models,ORNL/TM-2002/106.2002,
1257. Kirby, B.J., J.W. Van Dyke, C. Martinez, and A. Rodriguez,REPORT: Congestion Management Requirements, Methods and Performance Indices,ORNL/TM-2002/119.2002,
1258. Kozyr, A.V., K.M. Johnson, A.G. Dickson, G. Eischeid, K. Goyet, P.R. Guenther, R.M. Key, K. Lee, E.R. Lewis, F.J. Millero, D. Purkerson, C.L. Sabine, R.G. Schottle, D.W.R. Wallace, R.J. Wilke, and C.D. Winn,REPORT: Carbon Dioxide, Hydrographic, and Chemical Data Obtained During the Nine R/V Korr Cruises Comprising the Indian Ocean CO2 Survey (WOCE Sections I8SI9S, I9N, I8NI5E, I3, I5WI4, I7N, I1, I10, and I2; December 1, 1994-January 19, 1996),ORNL/CDIAC-138.2002,
1259. Lindberg, S.E., R.C. Harriss, R.R. Turner, D.S. Shriner, and D.D. Huff,REPORT: Mechanisms and Rates of Atmospheric Deposition of Selected Trace Elements and Sulfate to a Deciduous Forest Watershed,ORNL/TM-6674.2002,
1260. Maddalena, R., D.H. Bennett, T.E. McDone, B.F. Lyon, and R.A. Efroymsen,REPORT: Evaluation of TRIM.FaTE. Volume 1: approach and initial findings,EPA-453.Sept,2002,U.S.

- Environmental Protection Agency Office of Air Quality Planning and Standards
1261. Martin, M.Z. and O.R. West,REPORT: In situ chemical oxidation through lance permeation at the Portsmouth Gaseous Diffusion Plant (PORTS),ORNL/TM-2002/272.Dec,2002,Oak Ridge, TN:Oak Ridge National Laboratory
  1262. Martin, M.Z. and O.R. West,REPORT: In Situ Chemical Oxidation Through Lance Permeation at the Portsmouth Gaseous Diffusion Plant (PORTS),ORNL/TM-2002/272.2002,
  1263. Parr, P.D.,REPORT: Land Use Technical Report,ORNL/TM-2002/132.2002,
  1264. Parr, P., A. Medley, R. Forbes, and P. Cox,REPORT: ORNL Land and Facilities Plan,ORNL/TM-2002/1.2002,
  1265. Pavlov, D.S., A.I. Lupandin, V.V. Kostin, and G.F. Cada,REPORT: Downstream Migration of Fish Through Dams of Hydroelectric Power Plants,ORNL/TR-02/02.2002,
  1266. Peretz, J., B. Tonn, and M. Martin,REPORT: An assessment of energy-related career paths of senior industrial assessment center program alumni,ORNL/TM-2002/226.Dec,2002,Oak Ridge, TN:Oak Ridge National Laboratory
  1267. Perlack, R.D.,REPORT: Assessment of options for the collection, handling, and transport of corn stover,ORNL/TM-2002/44.Sept,2002,Oak Ridge:Oak Ridge National Laboratory
  1268. Perlack, R.D. and A. Turhollow, JR.,REPORT: Assessment of Options for the Collection, Handling, and Transport of Corn Stover,ORNL/TM-2002/44.2002,
  1269. Reed, R.M., G.K. Eddlemon, K.S. Gant, L.N. McCold, R.L. Miller, H.D. Quarles, B.V. Sorensen, and G.P. Zimmerman,REPORT: Environmental Assessment of the Proposed Construction and Operation of the Pine Bluff Non-Stockpile Facility at Pine Bluff Arsenal, Arkansas,Dec,2002,Aberdeen Proving Ground, MD:U.S.Army, Program Manager for Chemical Demilitarization
  1270. Sale, M.J., G.F. Cada, T.J. Carlson, D.D. Dauble, R.T. Hunt, B.N. Rinehart, G.L. Sommers, J.V. Flynn, and P.A. Brookshier,REPORT: DOE Hydropower Program Annual Report for FY 2001,2002,
  1271. Saulsbury, J.W., M.S. Bevelhimer, H.D. Quarles, W.S. Staub, R.K. Tallent, and J.W. Van Dyke,REPORT: Final supplemental environmental impact statement, Rocky Creek Hydroelectric Project (No. 10311),FERC/FSEIS-0083B.Oct,2002,Washington:Federal Energy Regulatory Commission
  1272. Saulsbury, J.W., M.S. Bevelhimer, J.T. Looney, A. Mitchnick, W.P. Staub, R.K. Tallent, J.W. Van Dyke, J.W. Webb, and F. Winchell,REPORT: Final Supplemental Environmental Impact Statement for Irene Creek and Anderson Creek Hydroelectric Projects,R02-115111.2002,
  1273. Saulsbury, J.W., G.F. Cada, R.R. Lee, T. Looney, H.D. Quarles, R.K. Tallent, L. Trettin, and J.W. Van Dyke,REPORT: Final Environmental Impact Statement: Warm Creek and Clearwater Creek Hydroelectric Projects, Washington,R02-114855.2002,
  1274. Saulsbury, J.W., M.S. Bevelhimer, R. Easton, R.K. Tallent, and J.W. Van Dyke,REPORT: Final Environmental Assessment for Hydropower License: Powerdale Hydroelectric Project (FERC No. 2659), Oregon,R02-114854.2002,
  1275. Schweitzer, M.,REPORT: Meeting the Challenge: The Prospect of Achieving 30 Percent Savings Through the Weatherization Assistance Program,ORNL/CON-479.May,2002,Oak Ridge:Oak Ridge National Laboratory
  1276. Schweitzer, M.,REPORT: Nonenergy Benefits from the Weatherization Assistance Program: A Summary of Findings from the Recent Literature,ORNL/CON-484.Apr,2002,Oak Ridge:Oak Ridge National Laboratory
  1277. Schweitzer, M. and J.F. Eisenberg,REPORT: Meeting the Challenge: The Prospect of Achieving 30 Percent Savings Through the Weatherization Assistance Program,ORNL/CON-479.2002,
  1278. Schweitzer, M. and B.E. Tonn,REPORT: Nonenergy Benefits from the Weatherization Assistance Program: A Summary of Findings from the Recent Literature,ORNL/CON-484.2002,
  1279. Sorensen, J.H.,REPORT: Planning Protective Action Decision-Making: Evacuate or Shelter-in-

- Place,ORNL/TM-2002/144.Aug,2002,Oak Ridge:Oak Ridge National Laboratory
1280. Sorensen, J.H., B.L. Shumpert, and B.M. Vogt,REPORT: Planning Protective Action Decision-Making: Evacuate or Shelter-in-Place,ORNL/TM-2002/144.2002,
  1281. Southworth, F., T.R. Curlee, D.P. Vogt, A. Chatterjee, and F.J. Wegmann,REPORT: An Assessment of Future Demands for and Benefits of Public Transit Services in Tennessee,R02-114617.2002,
  1282. Suter II, G.W., K.A. Reinbold, W.H. Rose, and M.K. Chawla,REPORT: Military Ecological Risk Assessment Framework (MERAf) for assessment of risks of military training and testing to natural resources,ORNL/TM-2002/295.Jan,2002,Oak Ridge:Oak Ridge National Laboratory
  1283. Terry, J.W. and G.P. Zimmerman,REPORT: Johnston Atoll Chemical Agent Disposal System-- Review and Evaluation of Information for Updating the 1990 Second Supplemental Environmental Impact Statement,R02-114843.2002,
  1284. Tonn, B., R. Schmoyer, and S. Wagner,REPORT: Weatherizing the Homes of Low-Income Home Energy Assistance Program Clients: A Programmatic Assessment,ORNL/CON-486.2002,
  1285. Vogt, B.M. and J.H. Sorensen,REPORT: How clean is safe? Improving the effectiveness of decontamination of structures and people following chemical and biological incidents,ORNL/TM-2002/178.Oct,2002,Oak Ridge:Oak Ridge National Laboratory
  1286. Vogt (Sorensen), B.M. and J.H. Sorensen,REPORT: How Clean is Safe? Improving the Effectiveness of Decontamination of Structures and People Following Chemical and Biological Incidents,ORNL/TM-2002/178.2002,
  1287. Watson, D.B. and H.D. Quarles,REPORT: Natural and Accelerated Bioremediation Research (NABIR) Field Research Center (FRC) Management Plan,ORNL/TM-2000/267.Feb,2002,Oak Ridge:Oak Ridge National Laboratory
  1288. Zimmerman, G.P., K.E. Bowman, S.A. Carnes, C.E. Easterly, C.W. Hagan, C.R. Hudson, P.E. Johnson, R.H. Ketelle, L.N. McCold, M.S. Salk, L.B. Shappert, J.W. Van Dyke, T.J. Blasing, P.R. Nickens, M.J. Scott, J.L. Sprung, J.R. Cook, M.S. Delligatti, S.C. Flanders, and R.J. Lewis,REPORT: Final Environmental Impact Statement for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah,R02-114804.2002,