DAVID L. MONTS

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65. D.L. Monts, P.R. Jang, J.C. Su, M.J. McCarthy, R. Arunkumar, R.L. Kirkland, and R.L. Cook, "Diagnostic Imaging Measurements for Process Optimization of an Industrial Electric Power Generating Facility", Pittsburgh Conference & Exposition on Analytical Chemistry and Applied Spectroscopy (PittCon 2000), New Orleans, LA, March 12-17, 2000, poster presentation 1997P.

66. Ping-Rey Jang, David L. Monts, Jiann-Cherng Su, Michael McCarthy, and Robert L. Cook, "Wall Temperature Measurements in an Industrial Glass Furnace Using Visible Thermal Imaging System", Pittsburgh Conference & Exposition on Analytical Chemistry and Applied Spectroscopy (PittCon 2000), New Orleans, LA, March 12-17, 2000, poster presentation 1647P.

67. Alexandre Usachev, Tracy Miller, Jagdish Singh, Fang-Yu Yueh, Ping-Rey Jang, and David Monts, "Optical Properties of Gaseous 2,4,6-Trinitrotoluene in the Ultraviolet Region", March Meeting of the American Physical Society, Minneapolis, MN, March 20-24, 2000, presentation R9.007.

68. Ramesh Sharma, Tracy S. Miller, Awadhesh K. Rai, Alexander D. Usachev, Jagdish P. Singh, Fang-Yu Yueh, and David L. Monts, "Photofragmentation Cross Sections of 2,4,6-Trinitrotoluene Vapor at Selected Wavelengths", Annual Meeting of the Southeastern Section of the American Physical Society, Starkville, MS, November 2-4, 2000.

69. L. Tarpley, Y. Su, D.L. Monts, and K.R. Reddy, "Spectral Imaging of Cotton Leaf Nutrient Status", Annual Meeting ASA-CSSA-SSSA [American Society of Agronomy-Crop Science Society of America-Soil Science Society of America], Minneapolis, MN, November 5-9, 2000, presentation C02-040-P.

70. Yi Su, W. Dunsford, and D.L. Monts, "Detection of Isotopic Uranium in an ICP: A Laser-Induced Fluorescence and Spectral Imaging Study", 28th Annual Meeting of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS 2001), Detroit, MI, October 5-12, 2001, presentation 900.

71. David L. Monts, Yi Su, Ping-Rey Jang, Thomas Philip, and M. John Plodinec, "Development of Imaging-Based Inspection Systems for Off-Line Radioactive Waste Vitrification Vessels," 104th Annual Meeting & Exposition of the American Ceramic

Society, St. Louis, Mo, April 28-May1, 2002, paper AMB.7-A-02-2002.

72. David L. Monts, Ping-Rey Jang, John Luthe, Michael J. McCarthy, O. Perry Norton, Robert L. Cook, and M. John Plodinec, "Investigation of Factors Affecting Accuracy of Glass Surface Temperature Measurements in Industrial Glass Furnace," 104th Annual Meeting & Exposition of the American Ceramic Society, St. Louis, Mo, April 28-May1, 2002, paper AMF.2-B-04-2002.

73. Yi Su and David L. Monts, "A Multi-Species Spectral Imaging Study of an Argon Inductively Coupled Plasma (ICP)", The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PittCon 2002), New Orleans, LA, March 16-22, 2002.

74. Thomas Philip, Yi Su, and David L. Monts, "Characterizing Thermal Devices by Identifying Spectra Using Principal Component Analysis", 17th International Conference on Computers and Their Applications (CATA-2002), International Society for Computers and Their Applications (ISCA), San Francisco, April 4-6, 2002.

75. Prashant Chopra, Thomas Philip, Yi Su, and David Monts, "Autonomous Agents in Prediction of Element Concentration: Real-Time Fuzzy Classification Paradigms", First International Congress on Autonomous Intelligent Agent Systems (ICAIS 2002), Geelong, Australia.

76. Yi Su, B.B. Maruthi Sridhar, and David L. Monts, "Monitoring the Process of Phytoremediation of Zinc by Barley (*Hordeum vulgare*) Using Visible and Near-Infrared Diffuse Reflectance Spectrometry," 9th Biennial International Conference on Nuclear and Hazardous Waste Management (Spectrum 2002), Reno, NV, August 4-8, 2002.

77. B.B. Maruthi Sridhar, Yi Su, David L. Monts, and Susan V. Diehl, "Monitoring the Process of Phytoextraction of Zinc and Cadmium by Indian Mustard Using Reflective Spectrometry", 18th Annual International Conference on Contaminated Soils, Sediments and Water, Amherst, MA, October 21-24, 2002.

78. Yi Su, B.B. Maruthi Sridhar, Fengxiang Han, David L. Monts, and Susan V. Diehl, "Monitoring the Impact of Heavy Metals on Plant Reflectance and Internal Leaf Structure During Phytoremediation Process", Spectral Remote Sensing of Vegetation, Las Vegas, NV, March, 2003. Sponsored by U.S. Environmental Protection Agency.

79. B.B. Maruthi Sridhar, Yi Su, David L. Monts, and Susan Diehl, "Monitoring Plant Reflectance and Internal Structure During Phytoremediation of Heavy Metals", *American* Society of Agronomy/Crop Science Society of America/Soil Science Society of America (ASA-CSSA-SSSA) Annual Meetings, Indianapolis, IN, November 10-14, 2002.

80. Fengxiang Han, Yi Su, David L. Monts, and William L. Kingery, "Effects of Chemical Remediation on Surface Chemistry of Clay Minerals and Soils", American Society of

Agronomy/Crop Science Society of America/Soil Science Society of America (ASA-CSSA-SSSA) Annual Meetings, Indianapolis, IN, November 10-14, 2002.

81. Yi Su, B.B. Maruthi Sridhar, and David L. Monts, "Monitoring the Process of Phytoremediation of Metal-Contaminated Soil by Near IR Reflectance Spectroscopy", 223rd American Chemical Society National Meeting, Orlando, FL, April 7-11, 2002.

82. M. John Plodinec, Ping-Rey Jang, Zhiling Long, David L. Monts, Thomas Philip, and Yi Su, "Use of Optical and Imaging Techniques for Inspection of Off-Line Joule-Heated Melter at the West Valley Demonstration Project", Waste Management 2003 Symposium, February 23-27, 2003, Tucson, AZ.

83. Chuji Wang, S.T. Scherrer, Ping-Rey Jang, and D.L. Monts, "Development of Sensitive and Inexpensive Sensors Using Fiber Loop Ringdown Spectroscopy", Federation of Analytical Chemistry and Spectroscopy Societies (FACCSS 2003), Oct. 19-23, 2003, Ft. Lauderdale, FL.

84. Jagdish P. Singh, Fang-Yu Yueh, David L. Monts, A. Miziolek, Russell Harmon, Frank DeLucia, Jr., and Kevin McNesby, "Explosive and Land Mine Detection by Laser Techniques", Gordon Research Conference on Illicit Substances Detection: Explosives, Barga, Italy, June 8-13, 2003.

85. B.B. Maruthi Sridhar, Susan Diehl, Yi Su, and David L. Monts, "Monitoring the Internal Structure of Barley Plants Subjected to Metal Phytoremediation", 7th International Symposium on In Situ and On-Site Bioremediation, Battelle, June 2003, Orlando, FL.

86. B.B. Maruthi Sridhar, Susan Diehl, Yi Su, David L. Monts, and Fengxiang Han, "Monitoring Structural Changes of Fern (*Pteris vittata*) During Phytoremediation of As and Cr Contaminated Soils", 57th Annual Conference of Forest Products Society, Bellevue, Washington, June 2003.

87. M. John Plodinec, Ping-Rey Jang, Zhiling Long, David L. Monts, Walter P. Okhuysen, Thomas Philip, and Yi Su, "Application of Optical and Imaging Techniques to Inspection of Off-Line Joule-Heated Melter at the West Valley Demonstration Project", 9th International Conference on Environmental Remediation and Radioactive Waste Management, September 21 – 25, 2003, Examination Schools, Oxford, UK.

88. Yi Su, Fengxiang X. Han, B.B. Maruthi Sridhar, Susan V. Diehl, and David L. Monts, "Bioavailability, Toxicity and Phytoextraction of Trivalent and Hexavalent Chromium in Contaminated Soils," 2nd International Conference on Soil Remediation (SOILREM 2004), November 9-12, 2004, Nanjing, People's Republic of China.

89. Yi Su, Fengxiang Han, David L. Monts, Charles A. Waggoner, and M. John Plodinec, "Bioavailability and Speciation of Mercury in Soils from Oak Ridge, TN," poster

presentation as part of Session 33 of 31st Annual Waste Management Symposium (WM05), February 27-March 3, 2005, Tucson, AZ.

90. M. John Plodinec, Ping-Rey Jang, Zhiling Long, Walter P. Okhuysen, Yi Su, and David L. Monts, "Development of Quantitative Imaging Probes for *In Situ* Volumetric Determination of Hanford Tank Wastes," oral presentation as part of Session 55 of 31st Annual Waste Management Symposium (WM05), February 27-March 3, 2005, Tucson, AZ.

91. F.X. Han, M.J. Plodinec, Y. Su, and D.L. Monts, "Terrestial Carbon Pools in Southeast and South-Central United States: State Level Inventories, Potentials, and Economic Impacts," oral presentation as part of 4th Annual Conference on Carbon Capture and Sequestration, May 2-5, 2005, Alexandria, VA.

92. David L. Monts, Ping-Rey Jang, Zhiling Long, Walter P. Okhuysen, Yi Su, and M. John Plodinec, "Development of Quantitative Imaging Probe Systems for *In Situ* Volumetric Determination of Hanford Tank Wastes," oral presentation at 10th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM05), September 4-8, 2005, Glasgow, Scotland.

93. David L. Monts, Fengxiang Han, Yi Su, Charles A. Waggoner, and M. John Plodinec, "Bioavailability and Speciation of Mercury in Soils from Oak Ridge, Tennessee, USA," oral presentation at 10th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM05), September 4-8, 2005, Glasgow, Scotland.

94. David L. Monts, Yi Su, Fengxiang Han, B.B. Maruthi Sridhar, Charles A. Waggoner, and M. John Plodinec, "Investigation of the Efficiency of Mercury Uptake by Selected Plant Species," oral presentation at 10th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM05), September 4-8, 2005, Glasgow, Scotland.

95. Y. Su, P. Jang, Z. Long, L.L. Gresham, and D.L. Monts, "Portable Real-Time LWIR Spectral Imaging System for Detecting and Visualizing Toxic Chemical Plumes," 2005 Conference on Sensors and Photonics for Applications in Industry, Life Sciences, and Communication (Optics East 2005), Boston, MA, October 23-26, 2005 (Paper 5995-22).

96. Ping-Rey Jang, Zhiling Long, Melissa Mott, Walter P. Okhuysen, Yi Su, David L. Monts, Paula Kirk, and John Ettien, "Quantitative Imaging Evaluation of Corrosion in Oak Ridge Research Reactor," oral presentation as part of 32nd Annual Waste Management Symposium (WM06), February 28-March 2, 2006, Tucson, AZ.

97. David L. Monts, "Long Wave Infrared Spectral Imaging: Applications to National Security", *Future Trends in Spectroscopy: Application to National Security*, Indo-US

Forum on Science & Technology, Varanasi, India, January 9-11, 2006 (invited presentation). Also participated in panel discussion concluding workshop.

98. Ping-Rey Jang, Rangaswami Arunkumar, Zhiling Long, Melissa A. Mott, Walter P. Okhuysen, Yi Su, David L. Monts, Paula G. Kirk, and John Ettien, "Quantitative Imaging Evaluation of Corrosion in the Oak Ridge Research Reactor Pool," Waste Management 2006 Symposium (WM'06), February 26-March 2, 2006, Tucson, AZ (Paper No. 6098). (Contributed presentation)

99. F.X. Han, Y. Su, D.L. Monts, and C. Waggoner, "Bioavailability and Speciation of Mercury in Soil from Oak Ridge, Tennessee, USA," Annual Meeting and Conference of Southern Association of Agricultural Scientists, Orlando, FL, February, 2006.

100. Guangjun Wang, Yi Su, and David Monts, "Laser-induced Fluorescence Spectroscopy Investigation of Uranyl Compounds," 71st Annual Meeting of the Mississippi Academy of Sciences, Mississippi State, MS, February 22, 2007.

101. Safwan Shiyab, Frank Matta, F.X. Han, Yi Su, and D.L. Monts, "Bioavailability of Mercury in Soil and Water and Its Effects on Plant Structure and Reflectance," 71st Annual Meeting of the Mississippi Academy of Sciences, Mississippi State, MS, February 23, 2007.

102. Ping-Rey Jang, Teresa Leone, Zhiling Long, Melissa A. Mott, O. Perry Norton, Walter P. Okhuysen, and David L. Monts, "Performance Evaluation of Fourier Transform Profilometry for Quantitative Waste Volume Determination under Simulated Hanford Waste Tank Conditions," 33rd Waste Management Symposium, Tucson, AZ, February 25-March 1, 2007 (Paper 7064; Session 76, Paper 4).

103. Fengxiang Han, Safwan Shiyab, Yi Su, David L. Monts, Charles A. Waggoner, and Frank B. Matta, "Stability and Bioavailability of Mercury Sulfide in Oak Ridge Soils," 33rd Waste Management Symposium, Tucson, AZ, February 25-March 1, 2007 (Paper 7176; Session 77, Paper 7).

104. Yi Su, Fengxiang Han, Safwan Shiyab, and David L. Monts, "Phytoextraction and Accumulation of Mercury in Selected Plant Species Grown in Soil Contaminated with Different Mercury Compounds," 33rd Waste Management Symposium, Tucson, AZ, February 25-March 1, 2007 (Paper 7174; Session 45).

105. Charles Waggoner, David Monts, Charles Sparrow, John Etheridge, and Yi Su, "Sensor Systems for Precise Location of Depleted Uranium in Soil and for Enhancing the Recovery of Both Zero Valence and Uranium Oxides," 33rd Waste Management Symposium, Tucson, AZ, February 25-March 1, 2007 (Paper 7181; Session 77, Paper 1).

106. Ping-Rey Jang, Teresa Leone, Zhiling Long, Melissa A. Mott, O. Perry Norton, Walter P. Okhuysen, and David L. Monts, "Evaluation of Fourier Transform Profilometry Performance: Quantitative Waste Volume Determination under Simulated Hanford Waste Tank Conditions," 11th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'07), Bruges, Belgium, September 2-6, 2007 (Paper 7120; Session 55, Paper 2).

107. Ping-Rey Jang, Rangaswami Arunkumar, Jeffrey S. Lindner, Zhiling Long, Melissa A. Mott, Walter P. Okhuysen, Yi Su, David L. Monts, Paula G. Kirk, and John Ettien, "Evaluation of Aluminum Pit Corrosion in Oak Ridge Research Reactor Pool by Quantitative Imaging and Thermodynamic Modeling," 11th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'07), Bruges, Belgium, September 2-6, 2007 (Paper 7121; Session 50, Paper 4).

108. Fengxiang Han, Safwan Shiyab, Yi Su, David L. Monts, Charles A. Waggoner, and Frank B. Matta, "Bioavailability and Stability of Mercury Sulfide in Armuchee (USA) Soils," 11th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'07), Bruges, Belgium, September 2-6, 2007 (Paper 7122; Session 41, Paper 7).

109. Yi Su, Fengxiang Han, Safwan Shiyab, Jian Chen, and David L. Monts, "Accumulation of Mercury in Selected Plant Species Grown in Soils Contaminated with Different Mercury Compounds," 11th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'07), Bruges, Belgium, September 2-6, 2007 (Paper 7123; Session 41, Paper 8).

110. F.X. Han, Y. Su, J. Chen, S. Shiyab, D. L. Monts, and C. A. Waggoner, "Effects of Iron/Manganese Oxides on Stability of Mercury Sulfide in U.S. Department of Energy's Oak Ridge Site," International Conference of Soil Science Society of America, New Orleans, LA, November 4-8, 2007.

111. Yi Su, B.B. Maruthi Sridhar, Fengxiang X. Han, David L. Monts, and Susan V. Diehl, "Effect of Bioaccumulation of Cs and Sr Natural Isotopes on Foliar Structure and Plant Reflectance of Indian Mustard (*Brassica juncea*)," 34th Waste Management Symposium (WM'08), Phoenix, AZ, February 24-28, 2008 (Paper No. 8105; Session 77, Paper 1).

112. John A. Etheridge, Ping-Rey Jang, Teresa Leone, Zhiling Long, O. Perry Norton, Walter P. Okhuysen, David L. Monts, and Terry L. Coggins, "Evaluation of Fourier Transform Profilometry for Quantitative Waste Volume Determination under Simulated Hanford Waste Tank Conditions," 34th Waste Management Symposium (WM'08), Phoenix, AZ, February 24-28, 2008 (Paper No. 8106; Session 42, Paper 5).

113. David L. Monts, Guangjun Wang, Yi Su, Ping-Rey Jang, and Charles A. Waggoner, "Development of Fluorescence Spectral Imaging for Location of Uranium Deposited on

Surfaces," 35th Waste Management Symposium (WM'09), March 1-5, 2009, Phoenix, AZ (Paper No. 9163).

114. David L. Monts, Ping-Rey Jang, Zhliling Long, O. Perry Norton, Walter P. Okhuysen, Yi Su, and Charles A. Waggoner, "Technical Performance Capability of Fourier Transform Profilometry for Quantitative Waste Volume Determination under Hanford Waste Tank Conditions," 35th Waste Management Symposium (WM'09), March 1-5, 2009, Phoenix, AZ (Paper No. 9333).

115. Seong Yong Oh, Fang Yu Yueh, and Jagdish P. Singh, "Laser-Induced Breakdown Spectroscopy: Application to Nuclear Waste Management," 35th Waste Management Symposium (WM'09), March 1-5, 2009, Phoenix, AZ, Paper No. 9166, poster presentation by D.L. Monts; none of the authors were able to attend this conference.

116. Ping-Rey Jang, Zhiling Long, O. Perry Norton, Lee Gresham, and David L. Monts, "Fourier Transform Profilometry (FTP) for Mapping Tank Residuals," U.S. Department of Energy Waste Processing Technical Exchange, May 19-21, 2009, Denver, CO.

117. Ping-Rey Jang, Zhiling Long, Walter P. Okhuysen, Rangaswami Arunkumar, Jeffrey S. Lindner, and David L. Monts, "Evaluation of Aluminum Pit Corrosion in Oak Ridge Research Reactor Pool," U.S. Department of Energy Non-Destructive Examination Independent Review, August 25-27, 2009, Atlanta, GA.

118. David L. Monts, Guangjun Wang, Yi Su, Ping-Rey Jang, and Charles A. Waggoner, "Fluorescence Spectral Imaging as a Tool for Locating Uranium Deposited on Surfaces," 12th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'09), October 11-15, 2009, Liverpool, UK (Paper No. ICEM2009-16089).

119. David L. Monts, Ping-Rey Jang, Zhiling Long, Olin P. Norton, Lawrence L. Gresham, Yi Su, and Jeffrey S. Lindner, "Technical Performance Characterization of Fourier Transform Profilometry for Quantitative Waste Volume Determination under Hanford Waste Tank Conditions," 12th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'09), October 11-15, 2009, Liverpool, UK (Paper No. ICEM2009-16281).

120. Yi Su, Fengxiang X. Han, Jian Chen, Yunju Xia, and David L. Monts, "Bioavailability of Mercury in Contaminated Oak Ridge Watershed and Potential Remediation of River/Runoff/Storm Water by an Aquatic Plant, Proceedings of 12th International Conference on Environmental Remediation and Radioactive Waste Management (ICEM'09), October 11-15, 2009, Liverpool, UK (Paper No. ICEM2009-16319).