

ROGER W. JONES

HOME

4317 Lincoln Swing, No. 25
Ames, IA 50014
515-292-2805
jonesames@gmail.com

WORK

Ames Laboratory
109 Spedding Hall
Iowa State University
Ames, IA 50011-3020
515-294-3894
jonesrw@ameslab.gov

EXPERIENCE ASSOCIATE SCIENTIST

Department of Biochemistry, Biophysics and Molecular Biology, Iowa State University, Ames, IA: August 2013 to present.

Research on the application of optical spectroscopy to the automated, non-destructive analysis and selection of seed with desired properties for propagation.

ASSOCIATE CHEMIST

Ames Laboratory, U. S. Department of Energy, Iowa State University, Ames, IA; and Institute for Physical Research and Technology, Iowa State University, Ames, IA: January 1988–June 2013

Research on and practical application of chemical analysis in diverse areas, with emphasis in the following areas; development of photoacoustic spectroscopy, invention of transient infrared spectroscopy, forensic analysis, on-line and in-field analysis, and chemometrics of grain analysis. Deputy leader of research group, including preparation of funding proposals, budgets, and reporting documents, and safety management.

R&D SCIENTIST

MTEC Photoacoustics, Inc., Ames, IA; May 2001–July 2004

Development of spectroscopy section of a rapid analyzer of single seeds for the seed-grain industry.

ASSISTANT PROFESSOR OF CHEMISTRY

The University of Alabama, Tuscaloosa, AL; August 1982–December 1987

Research on laser-induced photodissociation of small, gas-phase molecules and on rapid, highly energetic reactions in the gas phase. Taught general chemistry and both lecture and laboratory for undergraduate physical chemistry.

ASSOCIATE

Scientific Services Program, April 1986–May 1987; and U.S. Army Summer Faculty Research and Engineering Program, May–July 1985
U.S. Army Missile Command, Redstone Arsenal, AL

Research on using laser-induced fluorescence for monitoring radical production by laser photochemistry and on CO₂-laser- and spark-ignited reactions of phosphine with nitrogen fluorides.

POSTDOCTORAL RESEARCH ASSOCIATE

Department of Chemistry, Cornell University, Ithaca, NY; June 1980–July 1982

Research under Prof. Paul Houston on the state-specific photochemistry of small molecules, principally CF_3NO , in supersonic free jets.

EDUCATION MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Ph. D. in Physical Chemistry; May 1980

Thesis titled “Gas-Phase Ion Chemistry and Ligand Binding Energies of Cu^+ , Ag^+ , Co^+ and $(\eta^5\text{-C}_5\text{H}_5)\text{Co}^+$ using Ion Cyclotron Resonance Spectroscopy” under Prof. Ralph Staley. Also a year of research under Prof. James Gole on the chemiluminescence from reactions of gas-phase transition-metal atoms.

UNIVERSITY OF CALIFORNIA AT BERKELEY

B. S. in Chemistry; June 1975

AWARDS 1992 R&D 100 Award, with J. F. McClelland, for transient infrared spectroscopy

PATENTS “Apparatus and Method for Transient Thermal Infrared Spectrometry of Flowable Enclosed Materials,” J. F. McClelland and R. W. Jones, U.S. Patent 5191215, 1993.

“Apparatus and Method for Transient Thermal Infrared Emission Spectrometry,” J. F. McClelland and R. W. Jones, U.S. Patent 5075552, 1991.

“Apparatus and Method for Transient Thermal Infrared Spectrometry,” J. F. McClelland and R. W. Jones, U.S. Patent 5070242, 1991.

PROFESSIONAL ACTIVITIES

Organized and led workshop: “DART Mass Spectrometry for Forensic Analysis Workshop,” August 2008, Iowa State University. Videos of workshop sessions available at http://projects.nfstc.org/tech_transition/dart08/index.htm.

Chaired conference symposium: “Infrared On-Line and Process Analysis,” FACSS '98, October 1998, Austin, TX.

PUBLICATIONS BY ROGER JONES

T. J. Anderson, **R. W. Jones**, Y. Ai, R. S. Houk, J. Jane, Y. Zhao, D. F. Birt, and J. F. McClelland, "High Resolution Time-of-Flight Mass Spectrometry Fingerprinting of Metabolites from Caecum and Distal Colon Contents of Rats Fed Resistant Starch," *Anal. Bioanal. Chem.*, **2014**, 406, 745-756. DOI: 10.1007/s00216-013-7523-8

R. W. Jones, S. J. Rathke, D. A. Laird, and J. F. McClelland, "Real-Time Sensing of Soil Nitrate Concentration in the Parts per Million Range while the Soil is in Motion," *Appl. Spectrosc.*, **2013**, 67, 1106-1110. DOI: 10.1366/13-07064

J. J. Sweterlitsch, P. Mungara, **R. W. Jones**, J. Jane, and J. F. McClelland, "Real-Time Monitoring of the Mechanical Properties of a Soy Protein and Rubber Polymer During its Production using Transient Infrared Spectroscopy," *Int. J. Polym. Anal. Charact.*, **2013**, 18, 464-468. DOI: 10.1080/1023666X.2013.814085

R. W. Jones and J. F. McClelland, "Analysis of Writing Inks on Paper Using Direct Analysis in Real Time Mass Spectrometry," *Forensic Sci. Int.*, **2013**, 231, 73-81. DOI: 10.1016/j.forsciint.2013.04.016

T. J. Anderson, Y. Ai, **R. W. Jones**, R. S. Houk, J. Jane, Y. Zhao, D. F. Birt, and J. F. McClelland, "Analysis of Resistant Starches in Rat Cecal Contents Using Fourier Transform Infrared Photoacoustic Spectroscopy," *J. Agric. Food Chem.*, **2013**, 61, 1818-1822. DOI: 10.1021/jf3042616

R. W. Jones, T. Reinot, U. K. Frei, Y. Tseng, T. Lübberstedt, and J. F. McClelland, "Selection of Haploid Maize Kernels from Hybrid Kernels for Plant Breeding Using Near-Infrared Spectroscopy and SIMCA Analysis," *Appl. Spectrosc.*, **2012**, 66, 447-450. DOI: 10.1366/11-06426

R. W. Jones, T. Reinot, and J. F. McClelland, "Molecular Analysis of Primary Vapor and Char Products during Stepwise Pyrolysis of Poplar Biomass," *Energy Fuels*, **2010**, 24, 5199-5209. DOI: 10.1021/ef100655n

R. W. Jones and J. F. McClelland, "Fourier Transform Infrared Photoacoustic Spectroscopy of Ageing Composites," in *Ageing of Composites*, R. Martin, Ed.; Woodhead: Cambridge, UK; 2008; 160-185.

R. W. Jones, Y. Ng, and J. F. McClelland, "Monitoring Ambient-Temperature Aging of a Carbon-Fiber/Epoxy Composite Prepreg with Photoacoustic Spectroscopy," *Composites, Part A*, **2008**, 39, 965-971. DOI: 10.1016/j.compositesa.2008.03.015

R. W. Jones, R. B. Cody, and J. F. McClelland, "Differentiating Writing Inks Using Direct-Analysis-in-Real-Time Mass Spectrometry," *J. Forensic Sci.*, **2006**, 51, 915-918. DOI: 10.1111/j.1556-4029.2006.00162.x

S. J. Bajic, **R. W. Jones**, and J. F. McClelland, "Observation of Large Photoacoustic Signal Phase Changes During a Diffusion Process," *Appl. Spectrosc.*, **2005**, 59, 1420-1426. DOI: 10.1366/000370205774783142

R. W. Jones, J. J. Sweterlitsch, A. J. Wagner, J. F. McClelland, D. K. Hsu, D. L. Polis, and M. F. Sovinski, "FT-IR Photoacoustic Spectroscopy Applied to the Curing and Aging of Composites," in *Review of Progress in Quantitative Nondestructive Evaluation*, Vol. 24B; D. O. Thompson and D. E. Chimenti, Eds.; AIP Conf. Proc. Vol. 760; American Institute of Physics: Melville, NY, 2005, 1094-1099. DOI: 10.1063/1.1916794

J. J. Sweterlitsch, **R. W. Jones**, D. K. Hsu, and J. F. McClelland, "Prediction of Interlaminar Shear Strength of a Thermally Aged Carbon/Epoxy Composite Material by Fourier Transform Infrared Photoacoustic Spectroscopy," *Appl. Spectrosc.*, **2004**, 58, 1420-1423. DOI: 10.1366/0003702042641407

J. F. McClelland, **R. W. Jones**, and S. Luo, "Practical Analysis of Polymers with Depth Varying Compositions Using Fourier Transform Infrared Photoacoustic Spectroscopy" *Rev. Sci. Instrum.*, **2003**, 74, 285-290. DOI: 10.1063/1.1516244

R. W. Jones and J. F. McClelland, "Quantitative Depth Profiling Using Saturation-Equalized Photoacoustic Spectra," *Appl. Spectrosc.*, **2002**, 56, 409-418. DOI: 10.1366/0003702021954926

R. W. Jones, R. R. Meglen, B. R. Hames, and J. F. McClelland, "Chemical Analysis of Wood Chips in Motion Using Thermal-Emission Mid-Infrared Spectroscopy with Projection to Latent Structures Regression," *Anal. Chem.*, **2002**, 74, 453-457. DOI: 10.1021/ac0106445

R. W. Jones, J. F. McClelland, and S. J. Bajic, "Transient Infrared Spectroscopy," in *Handbook of Vibrational Spectroscopy*, Vol. 2, J.M. Chalmers and P.R. Griffiths, Eds.; Wiley: Chichester, UK, 2002; 1215-1231. DOI: 10.1002/0470027320.s3004

J. F. McClelland, **R. W. Jones**, and S. J. Bajic, "Photoacoustic Spectroscopy," in *Handbook of Vibrational Spectroscopy*, Vol. 2, J.M. Chalmers and P.R. Griffiths, Eds.; Wiley: Chichester, UK, 2002; 1231-1251. DOI: 10.1002/0470027320.s3005

R. W. Jones and J. F. McClelland, "Phase References and Cell Effects in Photoacoustic Spectroscopy," *Appl. Spectrosc.*, **2001**, 55, 1360-1367. DOI: 10.1366/0003702011953487

J. F. McClelland and **R. W. Jones**, "FTIR Photoacoustic Spectroscopy of Diesel Lubricant Oils Containing Particulate Matter," *Lubr. Eng.*, **2001**, 57(9), 17-21.

S. H. Gordon, **R. W. Jones**, J. F. McClelland, D. T. Wicklow, and R. V. Greene, "Transient Infrared Spectroscopy for Detection of Toxigenic Fungi in Corn: Potential for On-line Evaluation," *J. Agric. Food Chem.*, **1999**, 47, 5267-5272. DOI: 10.1021/jf990011f

S. Ochiai, J. F. McClelland, **R. W. Jones**, and P. D. Kalb, "Real-Time Monitoring of Low-Level Mixed-Waste Loading during Polyethylene Microencapsulation using Transient Infrared Spectroscopy," in *Proceedings of the 7th International Conference on Radioactive Waste Management and Environmental Remediation*; American Society of Mechanical Engineers: New York, 1999, CD-ROM.

J. F. McClelland, **R. Jones**, and S. Bajic, "Molecular Analysis of Polymers by FTIR Photoacoustic Spectroscopy," in *Plastics: Bridging the Millennium*; SPE ANTEC Proc. 9847; Society of Plastics Engineers: Brookfield, CT, 1999, 2424-2428.

R. W. Jones, "Infrared Technology and Raman Spectroscopy—Infrared Technology," in *Kirk-Othmer Concise Encyclopedia of Chemical Technology*, Fourth Ed., J.I. Kroschwitz and M. Howe-Grant, Eds.; Wiley: New York, 1999; 1128-1130.

J. F. McClelland, S. J. Bajic, **R. W. Jones** and L.M. Seaverson, "Photoacoustic Spectroscopy," in *Modern Techniques in Applied Molecular Spectroscopy*, F. M. Mirabella, Ed.; Wiley: New York, 1998; 221-265.

S. J. Bajic, **R. W. Jones**, J. F. McClelland, B. R. Hames, and R. R. Meglen, "Rapid Analysis of Wood Using Transient Infrared Spectroscopy and Photoacoustic Spectroscopy with PLS Regression," in *Fourier Transform Spectroscopy: 11th International Conference*; J. A. de Haseth, Ed.; AIP Conf. Proc. 430; American Institute of Physics: Woodbury, NY, 1998, 466-469. DOI: 10.1063/1.55710

S. J. Weeks, J. F. McClelland, S. L. Wright and **R. W. Jones**, "Transient Infrared Spectroscopy for On-line Analysis of Solids and Viscous Liquids," *Mikrochim. Acta*, **1997**, Suppl. 14, 801-802. DOI: 10.1007/978-3-7091-6840-0_212

J. F. McClelland, **R. W. Jones**, S. J. Bajic and J. F. Power, "Depth Profiling by FT-IR Photoacoustic Spectroscopy," *Mikrochim. Acta*, **1997**, Suppl. 14, 613-614. DOI: 10.1007/978-3-7091-6840-0_155

S. J. Bajic, J. F. McClelland and **R. W. Jones**, "Utilizing Fourier-Transform Infrared Photoacoustic Spectroscopy to Analyze Underground Storage Tank Waste Material," *Mikrochim. Acta*, **1997**, Suppl. 14, 611-612. DOI: 10.1007/978-3-7091-6840-0_154

R. W. Jones and J. F. McClelland, "Quantitative Depth Profiling of Layered Samples Using Phase-Modulation FT-IR Photoacoustic Spectroscopy," *Appl. Spectrosc.*, **1996**, 50, 1258-1263. DOI: 10.1366/0003702963905015

R. W. Jones, J. F. McClelland, S. J. Weeks, and A. M. Faucette, "Real-Time Monitoring of the Polyethylene Microencapsulation of Low-Level Mixed Waste and Surrogates by Transient Infrared Spectroscopy," *Waste Management '96*; WM Symposia: Tucson, AZ, 1996, CD-ROM.

S. L. Wright, **R. W. Jones**, J. F. McClelland, and P. D. Kalb, "Preliminary Tests of an Infrared Process Monitor for Polyethylene Encapsulation of Radioactive Waste," in *Stabilization and*

Solidification of Hazardous, Radioactive, and Mixed Wastes: 3rd Volume; T. M. Gilliam and C. C. Wiles, Eds.; ASTM STP 1240; ASTM: West Conshohocken, PA, 1996, 198-208.

S. J. Bajic, S. Luo, **R. W. Jones** and J. F. McClelland, "Analysis of Underground Storage Tank Waste Simulants by Fourier Transform Infrared Photoacoustic Spectroscopy," *Appl. Spectrosc.*, **1995**, 49, 1000-1005. DOI: 10.1366/0003702953964642

R. W. Jones, "Infrared Technology and Raman Spectroscopy—Infrared Technology," *Kirk-Othmer Encyclopedia of Chemical Technology*, Fourth Ed., J. I. Kroschwitz and M. Howe-Grant, Eds.; Wiley: New York, 1995; Vol. 14, 379-416.

R. W. Jones and J. F. McClelland, "On-Line Analysis of Solids and Viscous Liquids by Transient Infrared Spectroscopy," *Process Control Qual.*, **1993**, 4, 253-260.

J. F. McClelland, **R. W. Jones**, S. Luo and L. M. Seaverson, "A Practical Guide to FT-IR Photoacoustic Spectroscopy," in *Practical Sampling Techniques for Infrared Analysis*; P. B. Coleman, Ed.; CRC Press: Boca Raton, FL, 1993; 107-144.

J. F. McClelland, **R. W. Jones**, and S. Ochiai, "Depth Profiling with Step-Scan FT-IR Photoacoustic Spectroscopy," in *Ninth International Conference on Fourier Transform Spectroscopy*; J. E. Bertie and H. Wieser, Eds.; Proc. SPIE Vol. 2089; SPIE: Bellingham, WA, 1993, 302-303. DOI: 10.1117/12.166579

R. V. Greene, S. H. Gordon, M. A. Jackson, G. A. Bennett, J. F. McClelland, and **R. W. Jones**, "Detection of Fungal Contamination in Corn: Potential of FTIR-PAS and -DRS," *J. Agric. Food Chem.*, **1992**, 40, 1144-1149. DOI: 10.1021/jf00019a011

R. W. Jones and J. F. McClelland, "Transient Infrared Spectroscopy," in *Photoacoustic and Photothermal Phenomena III*; D. Bicanic, Ed.; Springer-Verlag: Berlin, Germany, 1992, 125-127. DOI: 10.1007/978-3-540-47269-8_29

J. F. McClelland, S. Luo, **R. W. Jones**, and L. M. Seaverson, "A Tutorial on the State-of-the-Art of FTIR Photoacoustic Spectroscopy," in *Photoacoustic and Photothermal Phenomena III*; D. Bicanic, Ed.; Springer-Verlag: Berlin, Germany, 1992, 113-124. DOI: 10.1007/978-3-540-47269-8_28

D. P. Baldwin, **R. W. Jones**, and J. F. McClelland, "Exploration of FTIR-Based PAS for On-Site Analysis of Volatile Contaminants in Air," in *Photoacoustic and Photothermal Phenomena III*; D. Bicanic, Ed.; Springer-Verlag: Berlin, Germany, 1992, 3-5. DOI: 10.1007/978-3-540-47269-8_1

R. W. Jones and J. F. McClelland, "Transient IR Spectroscopy: On-Line Analysis of Solid Materials," *Spectroscopy*, **1992**, 7(4), 54-58.

J. F. McClelland and **R. W. Jones**, "Transient Infrared Emission Spectroscopy (TIRES) of Solids in Motion," in *Proceedings of the International Workshop on Fourier Transform Infrared*

Spectroscopy (1990); E. F. Vansant, Ed.; University of Antwerp: Antwerp, Belgium, 1992, 258-267.

J. F. McClelland, **R. W. Jones**, S. Luo and L. M. Seaverson, "FTIR Spectroscopy with Photoacoustic Detection," in *Proceedings of the International Workshop on Fourier Transform Infrared Spectroscopy* (1990); E. F. Vansant, Ed.; University of Antwerp: Antwerp, Belgium, 1992, 64-74.

J. F. McClelland, S. Luo, **R. W. Jones**, and L. M. Seaverson, "FTIR Photoacoustic Spectroscopy Applications in Qualitative and Quantitative Analyses of Solid Samples," in *Eighth International Conference on Fourier Transform Spectroscopy*; H. M. Heise, E. H. Korte and H. W. Siesler, Eds.; Proc. SPIE Vol. 1575; SPIE: Bellingham, WA, 1992, 226-227. DOI: 10.1117/12.56355

R. W. Jones, S. Luo, and J. F. McClelland, "Real-Time Infrared Spectroscopy of Moving Solids for On-Line Analysis," in *Eighth International Conference on Fourier Transform Spectroscopy*; H. M. Heise, E. H. Korte and H. W. Siesler, Eds.; Proc. SPIE Vol. 1575; SPIE: Bellingham, WA, 1992, 220-221. DOI: 10.1117/12.56356

J. F. McClelland and **R. W. Jones**, "TIRS Shows Promise for On-Line QC," *PI Quality*, **1991**, 1(2), 23-24.

S. Luo, J. F. McClelland, and **R. W. Jones**, "On-Line Quantitative Analysis of Coal by Transient Infrared Emission Spectroscopy," in *Proceedings of the Eighth Annual International Pittsburgh Coal Conference*; Pittsburgh Coal Conference, Greensburg, PA, 1991, 1065-1071.

R. W. Jones and J. F. McClelland, "Transient Infrared Transmission Spectroscopy," *Anal. Chem.*, **1990**, 62, 2247-2251. DOI: 10.1021/ac00219a018

R. W. Jones and J. F. McClelland, "Quantitative Analysis of Solids in Motion by Transient Infrared Emission Spectroscopy Using Hot-Gas Jet Excitation," *Anal. Chem.*, **1990**, 62, 2074-2079. DOI: 10.1021/ac00218a005

R. W. Jones and J. F. McClelland, "Transient Infrared Emission Spectroscopy by Pulsed Laser Excitation," *Anal. Chem.*, **1989**, 61, 1810-1815. DOI: 10.1021/ac00192a006

R. W. Jones and J. F. McClelland, "Transient Infrared Emission Spectroscopy," *Anal. Chem.*, **1989**, 61, 650-656. DOI: 10.1021/ac00182a003

R. W. Jones and J. F. McClelland, "Transient Infrared Emission Spectroscopy," in *Seventh International Conference on Fourier Transform Spectroscopy*; D. G. Cameron, Ed.; Proc. SPIE Vol. 1145; SPIE: Bellingham, WA, 1989, 442-443. DOI: 10.1117/12.969540

J. F. McClelland, **R. W. Jones**, J. S. Oh, and L. M. Seaverson, "Recent Advances in FTIR Photoacoustic Spectroscopy," in *Seventh International Conference on Fourier Transform Spectroscopy*; D. G. Cameron, Ed.; Proc. SPIE Vol. 1145; SPIE: Bellingham, WA, 1989, 379. DOI: 10.1117/12.969512

R. D. Bower, W. G. Hawkins, P. L. Houston, **R. W. Jones**, H.-R. Kim, W. J. Marinelli, and N. Sivakumar, "Laser Studies of Molecular Photodissociation Dynamics," in *Advances in Laser Spectroscopy*, Vol. 3; B. A. Garetz and J. R. Lombardi, Eds.; Wiley: New York, 1986, 119-146.

J. K. McDonald and **R. W. Jones**, "Laser-Initiated Reactions of Phosphine and Nitrogen Fluorides," in *Laser Applications in Chemistry*; D. K. Evans, Ed.; Proc. SPIE Vol. 669; SPIE: Bellingham, WA, 1986, 99-104. DOI: 10.1117/12.938940

R. D. Bower, **R. W. Jones**, and P. L. Houston, "State-to-State Dissociation Dynamics in CF₃NO," *J. Chem. Phys.*, **1983**, 79, 2799-2807. DOI: 10.1063/1.446100

R. W. Jones, N. Sivakumar, B. H. Rockney, P. L. Houston, and E. R. Grant, "A¹Π←X¹Σ⁺ Resonance-Enhanced Multiphoton Ionization of Jet-Cooled CO," *Chem. Phys. Lett.*, **1982**, 91, 271-272. DOI: 10.1016/0009-2614(82)80153-X

R. W. Jones and R. H. Staley, "Gas-Phase Chemistry of Ag⁺ with Alkyl Chlorides and of Cu⁺ and Ag⁺ with Alcohols," *J. Phys. Chem.*, **1982**, 86, 1669-1674. DOI: 10.1021/j100206a036

R. W. Jones and R. H. Staley, "Relative Bond Dissociation Energies for Two-Ligand Complexes of Cu⁺ with Organic Molecules in the Gas Phase," *J. Am. Chem. Soc.*, **1982**, 104, 2296-2300. DOI: 10.1021/ja00372a030

R. W. Jones and R. H. Staley, "Relative Bond Dissociation Energies for Two-Ligand Complexes of Co⁺ with Organic Molecules in the Gas Phase," *J. Phys. Chem.*, **1982**, 86, 1387-1392. DOI: 10.1021/j100397a034

R. W. Jones, R. D. Bower, and P. L. Houston, "State-Selective Photodissociation Dynamics of CF₃NO," *J. Chem. Phys.*, **1982**, 76, 3339-3340. DOI: 10.1063/1.443333

M. M. Kappes, **R. W. Jones**, and R. H. Staley, "Bond Energies in Two-Ligand Gas-Phase Metal-Ion Complexes Exhibit Trans Influence," *J. Am. Chem. Soc.*, **1982**, 104, 888-889. DOI: 10.1021/ja00367a057

R. W. Jones and R. H. Staley, "Positive-Ion Chemistry of Cyclopentadienylcobalt Dicarboxyl," *Int. J. Mass Spectrom. Ion Phys.*, **1981**, 39, 35-45. DOI: 10.1016/0020-7381(81)80119-2

R. W. Jones and R. H. Staley, "Gas-Phase Chemistry of Cu⁺ with Alkyl Chlorides," *J. Am. Chem. Soc.*, **1980**, 102, 3794-3798. DOI: 10.1021/ja00531a021

R. W. Jones and J. L. Gole, "'Single Collision' Chemiluminescent Studies of the La-OCS Reaction—Vibrational Analysis of the LaS C²Π-X²Σ⁺ System and Determination of D₀⁰(LaS)," *Chem. Phys.*, **1977**, 20, 311-318. DOI: 10.1016/0301-0104(77)87019-5

R. W. Jones and J. L. Gole, "Single Collision Oxidation of Vanadium with NO₂ and O₂," *J. Chem. Phys.*, **1976**, 65, 3800-3802. DOI: 10.1063/1.433541

INVITED TALKS BY ROGER JONES

R. W. Jones and J. F. McClelland, "DART Mass Spectrometry for Hand Writing Ink Analysis," Association of Forensic Document Examiners Continuing Education Symposium, Albuquerque, NM, October 2008.

R. W. Jones and J. F. McClelland, "DART Mass Spectrometry for Ink Analysis," Chicago Section of the Society for Applied Spectroscopy, Chicago, IL, January 2008.

R. W. Jones, S. J. Bajic, J. F. McClelland, B. R. Hames, and R. R. Meglen, "Transient Infrared Spectroscopy of Wood Chips and Other Materials," FACSS '98, Austin, TX, October 1998.

R. W. Jones and J. F. McClelland, "Using Phase in FTIR Photoacoustic Spectrometry," FACSS XXI, St. Louis, MO, October 1994.

R. W. Jones, J. F. McClelland, and S. Luo, "Photoacoustic Spectroscopy with a Step-Scan FTIR System," Pittcon '93, Atlanta, GA, March 1993.

R. W. Jones and J. F. McClelland, "Analysis of Surface Layers Using Photoacoustic Spectroscopy and Transient Infrared Spectroscopy," ACS 42nd Southeast/46th Southwest Combined Regional Meeting, New Orleans, LA, December 1990.

MEETING PRESENTATIONS BY ROGER JONES

(Excludes co-authorships on presentations by others)

R. W. Jones, T. Reinot, T. Lübberstedt, U. K. Frei, G. De La Fuente, and J. F. McClelland, "Automated Single-Seed Screening by NIR Spectroscopy to Select Haploid Maize Seeds for Breeding Programs," International Workshop on Engineered Crops, Des Moines, IA, April 2014.

R. W. Jones, T. Reinot, and J. F. McClelland, "Rapid Arson-Sample Analysis Using DART Mass Spectrometry," 40th Annual Meeting of the Midwestern Association of Forensic Scientists, Lombard, IL, September 2011.

R. W. Jones, A. J. Wagner, and J. F. McClelland, "Characterizing Inks from Documents Using HPLC/MS," 57th Annual Meeting of the American Academy of Forensic Sciences, New Orleans, LA, February 2005.

R. W. Jones, A. J. Wagner, and J. F. McClelland, "HPLC-MS and HPLC-FTIR Analysis of Inks for Forensic Purposes," 31st FACSS, Portland, OR, October 2004.

R. W. Jones, A. J. Wagner, J. F. McClelland, J. J. Sweterlitsch, D. K. Hsu, D. L. Polis, and M. F. Sovinski, "FT-IR Photoacoustic Spectroscopy Applied to the Curing and Aging of Composites," 31st Annual Review of Progress in Quantitative Nondestructive Evaluation, Golden, CO, July 2004.

J. F. McClelland and R. W. Jones, "On-line Mid-Infrared Analysis of Industrial Processes by Transient Infrared Spectroscopy," Pittcon 2004, Chicago, IL, March 2004.

J. F. McClelland, J. S. Sweterlitsch, and R. W. Jones, "Using Attenuated Total Reflection Spectroscopy for Identifying Ink on Intact Documents," Pittcon 2003, Orlando, FL, March 2003.

J. F. McClelland, J. S. Sweterlitsch, and R. W. Jones, "Characterizing Inks on Intact Documents Using Attenuated Total Reflection Infrared Spectroscopy," 55th Annual Meeting of the American Academy of Forensic Sciences, Chicago, IL, February 2003.

R. W. Jones, S. J. Bajic, B. R. Hames, J. F. McClelland, and R. R. Meglen, "Rapid Characterization of Wood by FTIR-Photoacoustic Spectroscopy and Transient Infrared Spectroscopy with PLS Regression," FACSS XXIV, Providence, RI, October 1997.

R. W. Jones, J. F. McClelland, S. Gordon, and R. Greene, "Mid-Infrared Analyses of Corn," 38th Annual Corn Dry Milling Conference, Peoria, IL, May 1997.

R. W. Jones, S. J. Bajic, D. P. Baldwin, and J. F. McClelland, "Fourier-Transform Photoacoustic Spectroscopy in the Ultraviolet/Visible Region," FACSS XXIII, Kansas City, MO, September 1996.

R. W. Jones, J. Power, and J. F. McClelland, "Probing Composition Versus Depth in Samples Using Photoacoustic Spectroscopy," Pittcon '96, Chicago, IL, March 1996.

R. W. Jones, J. F. McClelland, A. M. Faucette, and S. J. Weeks, "Real-Time Monitoring of the Polyethylene Microencapsulation of Low-Level Mixed Waste and Surrogates by Transient Infrared Spectroscopy," Waste Management '96, Tucson, AZ, February 1996.

R. W. Jones, S. Luo, S. J. Bajic, S. L. Wright, and J. F. McClelland, "Analysis of Sludge Wastes Using Fourier Transform Infrared Photoacoustic Spectroscopy," Pittcon '94, Chicago, IL, February 1994.

R. W. Jones, S. Ochiai, and J. F. McClelland, "On-Site Infrared Analyses for Complex Systems," Information Exchange Meeting on Characterization, Sensors, and Monitoring Technologies, Dallas, TX, July 1992.

R. W. Jones and J. F. McClelland, "Real-Time Analysis of Flowing Materials by Transient Infrared Spectroscopy," Pittcon '92, New Orleans, LA, March 1992.

R. W. Jones, S. Luo, and J. F. McClelland, "Real-Time Infrared Spectroscopy of Moving Solids for On-Line Analyses," Eighth International Conference on Fourier Transform Spectroscopy, Lübeck-Travemünde, Germany, September 1991.

R. W. Jones, J. F. McClelland, and D. P. Baldwin, "Exploration of FTIR-Based PAS for On-Site Analysis of Volatile Contaminants in Air," Seventh International Topical Meeting on Photoacoustic and Photothermal Phenomena, Doorwerth, The Netherlands, August 1991.

R. W. Jones and J. F. McClelland, "Transient Infrared Spectroscopy," Seventh International Topical Meeting on Photoacoustic and Photothermal Phenomena, Doorwerth, The Netherlands, August 1991.

R. W. Jones and J. F. McClelland, "On-Line Analysis of Moving Solids by Transient Infrared Spectroscopy," Pittsburgh Conference, Chicago, IL, March 1991.

R. W. Jones and J. F. McClelland, "New Developments in On-Line Molecular Analysis of Solids Using Transient Infrared Emission Spectroscopy (TIRES)," FACSS XVII, Cleveland, OH, October 1990.

R. W. Jones and J. F. McClelland, "Infrared Spectroscopy of Moving Solids," Pittsburgh Conference, New York, NY, March 1990.

R. W. Jones and J. F. McClelland, "On-Line Infrared Spectroscopy of Solid Materials in Motion," FACSS XVI, Chicago, IL, October 1989.

J. F. McClelland and R. W. Jones, "Transient Infrared Emission Spectroscopy," Sixth International Topical Meeting on Photoacoustic and Photothermal Phenomena, Baltimore, MD, July-August 1989.

R. W. Jones and J. F. McClelland, "Transient Infrared Emission Spectroscopy," Seventh International Conference on Fourier Transform Spectroscopy, Fairfax, VA, June 1989.

R. W. Jones and J. F. McClelland, "Transient Infrared Emission Spectroscopy," Pittsburgh Conference, Atlanta, GA, March 1989.

J. F. McClelland, L. M. Seaverson, and R. W. Jones, "New Capabilities in FTIR Spectroscopy with Photoacoustic Detection," FACSS XV, Boston, MA, November 1988.

R. W. Jones and J. K. McDonald, "Chemiluminescent Reaction of Phosphine with NF_3 ," 194th ACS National Meeting, New Orleans, LA, August-September 1987.

R. W. Jones and J. K. McDonald, " CO_2 -Laser-Initiated Reaction of Phosphine and Nitrogen Trifluoride," 38th ACS Southeast Regional Meeting, Louisville, KY, November 1986.

R. W. Jones, R. D. Bower, and P. L. Houston, "State-Specific Photodissociation of CF_3NO ," 182nd ACS National Meeting, New York, NY, August 1981.

R. W. Jones and R. H. Staley, "Ion Chemistry and Ligand Binding Energies of Cu^+ and Related Metal Cations," 28th Annual Conference on Mass Spectrometry and Allied Topics, New York, NY, May 1980.