
Curriculum Vitae of Laurel V. Mason, F-ABC Forensic Scientist

Capabilities

She can chemically analyze physical evidence recovered from the fire scene to determine the presence of ignitable liquids, vegetable oils or explosive residues. She can evaluate the validity of the analysis and analytical techniques of other scientists through review of data, reports and testimony. She is capable of performing various types of instrumental and chemical analysis, reporting the results in a clear, concise format as well as providing expert testimony as to the results of her analyses.

Analytical Forensic Associates Responsibilities

President / Laboratory Director / Senior Forensic Scientist: 1992 to present.

She developed and manages the operation of the analytical laboratory at Analytical Forensic Associates. Her responsibilities include the direction of laboratory services pertaining to chemical analysis of ignitable liquids in fire debris, reporting of the results, protecting the evidence and testifying as to the results of those analyses. She routinely conducts additional chemical analyses of fire evidence including the recovery and identification of vegetable oil residues and evaluates the validity of the work of other scientists through review of reports, testimony and other data as well as providing litigation support. She is responsible for laboratory management, training and quality assurance. She conducts preliminary evaluations of clients problems, evaluates the chemical interactions and reactions of components specific to fire losses. She is also capable of performing many types of chemical and instrumental analyses, including GC/MS, FTIR and light microscopy and giving expert testimony as to the results of those analyses.

She has analyzed or supervised the analysis of over one hundred thousand fire debris samples since 1981 and has testified as a expert witness in Alabama, Arkansas, Connecticut, Florida, Georgia, Illinois, Indiana, Kentucky, Maryland, Minnesota, Missouri, New York, Tennessee, Oklahoma, Pennsylvania and West Virginia.

Experience

Applied Technical Services, Inc.: - Forensic Chemist: 1981 to 1992.

She managed the day to day operation and maintenance of the fire and arson laboratory at Applied Technical Services. She developed and implemented quality control and analytical procedures pertaining to the analysis of flammable and combustible liquid residues present in fire debris, reporting the results and protecting the evidence. She analyzed physical evidence

Experience (continued)

to substantiate the quality and/or legitimacy of the samples and conducted preliminary evaluations of customer problems. Examined and identified microscopic fibers and particles and utilized working knowledge of gas chromatography, thin layer chromatography, infrared spectrophotometry, gas chromatography/mass spectrometry, and polarized light microscopy. She developed the Company's capabilities in gas chromatography/mass spectrometry, asbestos analysis and radon testing.

Education and Professional Training

Bachelor of Science in Biology, Mercer University, 1981.

Preparation and Strategic Planning for Accreditation of Forensic laboratories Based on the ISO/IEC 17025 International Standard, Atlanta, GA, AAFS, February 2012.

Estimating the Uncertainty of Measurements in the Modern Forensic Laboratory: Compliance with ISO 17025, Tunica, MS, SAFS, September 2010.

Expert Witness Testimony Techniques for Forensic Scientists in a Post Daubert and NAS Report Environment, Tunica, MS, SAFS, September 2010.

Introduction to the Analysis of Explosives, Tunica, MS, SAFS, September 2010.

Fires and Explosions: A Multidisciplinary Overview of Investigative Methods, Mental States of Perpetrators, and Psychological Trauma to Victims, Seattle, WA, AAFS, February 2010.

Don't Bomb in Court: How Arson and Bomb Scene Investigators and Laboratory Personnel Can Survive in a Daubert or Frye Scientific Evidence Hearing in Court, Washington, DC, AAFS, February 2008.

64th, 62nd, 60th and 44th Annual Meeting of the American Academy of Forensic Sciences (AAFS), 2012, 2010, 2008 and 1992.

Southern Association of Forensic Scientists Annual Training Meeting, 2010 and 1993.

1st and 2nd Southeastern Annual Training Conference, 2009 – 2010.

61st, 59th, 57th, 56th, 54th, 53rd, 50th, 49th, 47th, 45th and 37th Annual Meeting of Meetings of the International Association of Arson Investigators (IAAI), 1986 – 2011.

43rd, 42nd, 41st, 40th, 39th, 38th and 33rd Southeastern Arson Seminar (GA-IAAI), 1997 – 2008.

Georgia Fire Investigator's Association Spring Seminar (GFIA), 1994 – 1995, 2003 – 2008.

Mass Spectral Interpretation of Arson Samples, Charleston, SC, September 1993.

38th, 39th and 40th Annual Fire and Arson Investigator's Training Conference, Oklahoma Chapter of the IAAI, 1992 - 1994.

3rd and 4th International Symposium on Recent Advances in Arson Analysis and Detection (AAFS), 1990 and 1992.

Bureau of Alcohol, Tobacco and Firearms Arson Accelerant Detection Course, Forsyth, GA, August 1989.

Seminar on Comprehensive Analytical Techniques, Perkin-Elmer Corporation, Norcross, GA, December 1988.

Short Course on Capillary Column Chromatography, Perkin-Elmer Corporation, Norcross, GA, July 1986.

Seminar on Modern Techniques of Fire and Arson Investigation, Marietta, GA, February 1985.

Short Course on Gas Chromatography, American Chemical Society (ACS), Atlanta, GA, 1982.

Certifications

Fellow – American Board of Criminalistics, Fire Debris Specialist, Certificate #1736.

Professional Associations

Member and Fellow, American Board of Criminalistics, (ABC).
Member, American Academy of Forensic Sciences, (AAFS).
Member, Southern Association of Forensic Scientists, (SAFS).
Member, American Society of Testing and Materials, (ASTM)
E30 Committee Member-Forensic Science.
Member, National Fire Protection Association (NFPA).
Member, Atlanta Fire Evidence Discussion Group and Proficiency Testing in Fire Debris Participant.
Member, International Association of Arson Investigators (IAAI).
Chair of Forensic Science Committee, 1999 to 2001.
Co-Chair of Forensic Science Committee, 1994-1999.
Member of Forensic Science Committee, 1994 to 2004, 2007 to present.
Chapter Liaison, 1997 to 2000.
Member of Nominating Committee, 1999 to 2001.
Member of Training and Education Committee, 2002 to 2003.
Member, Georgia Fire Investigator's Association (GFIA), Georgia Chapter 8 of the IAAI.
Treasurer, 2011 to present.
Co-Chair of Training and Education Committee, 2003 to present.
Board Member, 2000 to 2008 and 2011 to present.
Editor of the *Fire Trailer News*, 2004 to 2006.
Webmaster of the GFIA website, 2004 to 2006.
2nd Vice-President, 2002 to 2003.
1st Vice-President, 2003 to 2003.
President, 2003 to 2004.
Member, Metro Fire Investigator's Association, Past President – 1996.
Member of the Iowa Chapter of the IAAI.
Member of the American Chemical Society (ACS).

Publications and Presentations

"Multiple Analysis of Fire Debris Samples Using Passive Headspace Concentration" (co-authored with L. A. Palmer), *Journal of Forensic Sciences*, Vol. 38, No. 1, Jan. 1993.
"The Behavior of Flammable and Combustible Liquids" (co-authored with J. J. Lentini), *The Fire and Arson Investigator*, Vol. 42, No. 1, September 1991.
"Isolation of Accelerant-Like Residues from Roof Shingles Using Headspace Concentration", (co-authored with J. J. Lentini), *Arson Analysis Newsletter*, Vol. 6, No. 3, May 1982.
"Laboratory Analysis of Evidence for Vegetable Oils / Analyst Certification and Accreditation", 34th Annual Training Conference, The Florida Advisory Committee on Arson Prevention, State Fire College, Ocala, FL, November 2011.

Publications and Presentations (continued)

- "Laboratory Analysis of Evidence and Debris", 33rd Annual Training Conference, The Florida Advisory Committee on Arson Prevention, State Fire College, Ocala, FL, November 2010.
- "Collection, Preservation, Packaging and Analysis of Fire Debris Evidence", 32nd Annual Arson Seminar, PA, Association of Arson Investigators (PAAI), State College, PA, June 2009.
- "Fire Debris Evidence: Collection, Preservation, Packaging and Analysis", Donan Engineering Company, Inc., Louisville, KY, January 2009.
- "Laboratory Updates in Fire Debris Analysis", Georgia Fire Investigator's Association Spring Seminar, March 2008.
- "Evidence Collection", Southwest Georgia Fire Investigator's Chapter Meeting, Cordele, GA, June 2007.
- "Evidence Collection and the Ignitable Liquid Detection Canine", Georgia Fire Investigator's Association Spring Seminar, Athens, GA, March 2007.
- "Fire Evidence Collection", Columbus Fire Department, Columbus, GA, June 1998.
- "Fire Evidence Collection", Iowa Chapter of the International Association of Arson Investigators Seminar, Ames, IA, September 1996.
- "Fire Evidence Collection", 47th Annual International Association of Arson Investigator's Seminar, St. Louis, MO, April 1996.
- "Fire Evidence Collection", Alabama Association of Arson Investigator's (AAAI) Seminar, Ft. Payne, AL, August 1995.
- "Fire Scene Evidence Collection", Georgia Fire Investigator's Association Conferences, Valdosta, GA, October 1993 - Dalton, GA, February 1995 and Albany, GA, March 1996.
- "Multiple Analysis of Fire Debris Samples Using Passive Headspace Concentration", New Orleans, LA, February 1992.