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Augustus Way Fountain III
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Contents

ix *Conference Committee*
xi *Introduction*

SESSION 1 ADVANCES IN SPECTROSCOPIC CHEMICAL DETECTION I

8710 02 **Mid-wave infrared hyperspectral imaging of unknown chemical warfare agents (Invited Paper)** [8710-1]
R. J. Clewes, C. R. Howle, Defence Science and Technology Lab. (United Kingdom); J. Guicheteau, D. Emge, Edgewood Chemical and Biological Ctr. (United States); K. Ruxton, G. Robertson, W. Miller, G. Malcolm, G. Maker, M Squared Lasers Ltd. (United Kingdom)

8710 03 **Standoff chemical D&Id with extended LWIR hyperspectral imaging spectroradiometer** [8710-2]
F. Prel, L. Moreau, ABB Inc. (Canada); H. Lavoie, F. Bouffard, J.-M. Thériault, Defence Research and Development Canada, Valcartier (Canada); C. Vallieres, C. Roy, ABB Inc. (Canada); D. Dubé, Defence Research and Development Canada, Valcartier (Canada)

8710 04 **Stand-off identification and mapping of liquid surface contaminations by passive hyperspectral imaging** [8710-6]
R. Braun, R. Harig, Bruker Optik GmbH (Germany)

SESSION 2 ADVANCES IN SPECTROSCOPIC CHEMICAL DETECTION II

8710 05 **Video-rate spectral imaging of gas leaks in the longwave infrared** [8710-7]
N. Hagen, R. T. Kester, C. G. Morlier, Rebellion Photonics Inc. (United States); J. A. Panek, P. Drayton, IES Inc. (United States); D. Fashimpaur, BP Products North America Inc. (United States); P. Stone, E. Adams, IES Inc. (United States)

8710 06 **Improved detection and false alarm rejection for chemical vapors using passive hyperspectral imaging** [8710-8]
W. J. Marinelli, R. Miyashiro, C. M. Gittins, D. Konno, S. Chang, Physical Sciences Inc. (United States); M. Farr, Smiths Detection Edgewood (United States); B. Perkins, Ultra Electronics (United States)

8710 07 **Standoff chemical detection with parts per million level calibrated detection sensitivity** [8710-9]
X. Chen, F.-S. Choa, Univ. of Maryland, Baltimore County (United States); E. Holthoff, P. Pellegrino, U.S. Army Research Lab. (United States); J. Fan, AdTech Optics, Inc. (United States)

8710 08 **CWA stand-off detection, a new figure-of-merit: the field surface scanning rate** [8710-10]
P. F. Bernascolle, Bertin Technologies (France)

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SESSION 3 ADVANCES IN SPECTROSCOPIC CHEMICAL DETECTION III

8710 09 **Performance comparison of microphone and reflector array structures for real-time and outdoor photoacoustic chemical sensing** [8710-12]
J. Lay, X. Chen, F.-S. Choa, Univ. of Maryland, Baltimore County (United States)

8710 0A **LIBS plasma model validation** [8710-13]
S. T. Griffin, B. Dent, Univ. of Memphis (United States)

8710 0B **Methodology for the passive detection and discrimination of chemical and biological aerosols** [8710-14]
W. J. Marinelli, K. N. Shokhirev, D. Konno, D. C. Rossi, Physical Sciences Inc. (United States); M. Richardson, BAE Systems, Inc. (United States)

SESSION 4 ADVANCES IN CHEMICAL POINT DETECTION

8710 0D **Smart phones: platform enabling modular, chemical, biological, and explosives sensing** [8710-16]
A. S. Finch, M. Coppock, J. R Bickford, M. A. Conn, T. J. Proctor , D. N. Stratis-Cullum, U.S. Army Research Lab. (United States)

8710 0E **Paper SERS chromatography for detection of trace analytes in complex samples** [8710-17]
W. W. Yu, I. M. White, Univ. of Maryland, College Park (United States)

8710 0G **Development of surface enhanced Raman scattering (SERS) spectroscopy monitoring of fuel markers to prevent fraud** [8710-19]
T. G. Wilkinson, J. Clarkson, P. C. White, N. Meakin, DeCipher Pte Ltd. (United Kingdom); K. McDonald, Ocean Optics (United Kingdom)

8710 0H **Ppb detection of Sarin surrogate in liquid solutions** [8710-20]
M. Hamel, J. Hamoniaux, L. Rocha, S. Normand, Lab. Capteurs et Architectures Électroniques, CEA, LIST (France)

SESSION 5 ADVANCES IN STANDOFF EXPLOSIVES DETECTION I

8710 0I **Infrared hyperspectral standoff detection of explosives** [8710-22]
F. Fuchs, S. Hugger, J. Jarvis, V. Blattmann, M. Kinzer, Q. K. Yang, R. Ostendorf, W. Bronner, R. Driad, R. Aidam, J. Wagner, Fraunhofer Institute for Applied Solid State Physics (Germany)

8710 0J **Quantum cascade laser FM spectroscopy of explosives** [8710-23]
Z. Gutmann, T. Clasp, C. Lue, T. Johnson, T. Ingle, J. Jamison, R. Buchanan, S. Reeve, Arkansas State Univ. (United States)

8710 0L **Hazardous material analysis using mid-wave infrared hyperspectral imaging techniques** [8710-25]
K. Ruxton, G. Robertson, B. Miller, G. P. A. Malcolm, G. T. Maker, M Squared Lasers Ltd. (United Kingdom)

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8710 0M **THz-Raman spectroscopy for explosives, chemical, and biological detection** [8710-26]
J. T. A. Carriere, F. Havermeyer, R. A. Heyler, Ondax, Inc. (United States)

8710 0N **Quantum cascade laser intracavity absorption sensor** [8710-27]
A. Muraviev, D. Maukonen, C. Fredricksen, G. Medhi, R. E. Peale, Univ. of Central Florida (United States)

SESSION 6 ADVANCES IN STANDOFF EXPLOSIVES DETECTION II

8710 0O **SWIR hyperspectral imaging detector for surface residues** [8710-28]
M. P. Nelson, P. Mangold, N. Gomer, O. Klueva, P. Treado, ChemImage Corp. (United States)

8710 0P **Investigation of short cavity CRDS noise terms by optical correlation** [8710-29]
S. T. Griffin, J. Fathi, Univ. of Memphis (United States)

8710 0Q **Next generation hazard detection via ultrafast coherent anti-Stokes Raman spectroscopy** [8710-30]
J. J. Brady, P. M. Pellegrino, U.S. Army Research Lab. (United States)

8710 0R **Rejection of fluorescence from Raman spectra of explosives by picosecond optical Kerr gating** [8710-31]
I. Johansson, B. Zachhuber, M. Nordberg, H. Östmark, Swedish Defence Research Agency (Sweden)

8710 0S **Spatiotemporal evolution of plasma molecular emission following laser ablation of explosive analogs** [8710-32]
J. Merten, M. Jones, C. Sheppard, Arkansas State Univ. (United States); C. Parigger, The Univ. of Tennessee Space Institute (United States); S. Allen, Embry-Riddle Aeronautical Univ. (United States)

SESSION 7 APPLICATIONS OF EXPLOSIVES DETECTION I

8710 0T **Real-world particulate explosives test coupons for optical detection applications** [8710-33]
V. Nguyen, M. Papantonakis, R. Furstenberg, C. Kendziora, R. A. McGill, U.S. Naval Research Lab. (United States)

8710 0V **Infrared (1-12 µm) atomic and molecular emission signatures from energetic materials using laser-induced breakdown spectroscopy** [8710-36]
E. Kumi Barimah, U. Hömmerich, E. Brown, Hampton Univ. (United States); C. S.-C. Yang, Battelle Eastern Science and Technology Ctr. (United States); S. B. Trivedi, F. Jin, Brimrose Corp. of America (United States); P. S. Wijewarnasuriya, U.S. Army Research Lab. (United States); A. C. Samuels, A. P. Snyder, Edgewood Chemical Biological Ctr. (United States)

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8710 0M **THz-Raman spectroscopy for explosives, chemical, and biological detection** [8710-26]
J. T. A. Carriere, F. Havermeyer, R. A. Heyler, Ondax, Inc. (United States)

8710 0N **Quantum cascade laser intracavity absorption sensor** [8710-27]
A. Muraviev, D. Maukonen, C. Fredricksen, G. Medhi, R. E. Peale, Univ. of Central Florida (United States)

SESSION 6 ADVANCES IN STANDOFF EXPLOSIVES DETECTION II

8710 0O **SWIR hyperspectral imaging detector for surface residues** [8710-28]
M. P. Nelson, P. Mangold, N. Gomer, O. Klueva, P. Treado, ChemImage Corp. (United States)

8710 0P **Investigation of short cavity CRDS noise terms by optical correlation** [8710-29]
S. T. Griffin, J. Fathi, Univ. of Memphis (United States)

8710 0Q **Next generation hazard detection via ultrafast coherent anti-Stokes Raman spectroscopy** [8710-30]
J. J. Brady, P. M. Pellegrino, U.S. Army Research Lab. (United States)

8710 0R **Rejection of fluorescence from Raman spectra of explosives by picosecond optical Kerr gating** [8710-31]
I. Johansson, B. Zachhuber, M. Nordberg, H. Östmark, Swedish Defence Research Agency (Sweden)

8710 0S **Spatiotemporal evolution of plasma molecular emission following laser ablation of explosive analogs** [8710-32]
J. Merten, M. Jones, C. Sheppard, Arkansas State Univ. (United States); C. Parigger, The Univ. of Tennessee Space Institute (United States); S. Allen, Embry-Riddle Aeronautical Univ. (United States)

SESSION 7 APPLICATIONS OF EXPLOSIVES DETECTION I

8710 0T **Real-world particulate explosives test coupons for optical detection applications** [8710-33]
V. Nguyen, M. Papantonakis, R. Furstenberg, C. Kendziora, R. A. McGill, U.S. Naval Research Lab. (United States)

8710 0V **Infrared (1-12 µm) atomic and molecular emission signatures from energetic materials using laser-induced breakdown spectroscopy** [8710-36]
E. Kumi Barimah, U. Hömmerich, E. Brown, Hampton Univ. (United States); C. S.-C. Yang, Battelle Eastern Science and Technology Ctr. (United States); S. B. Trivedi, F. Jin, Brimrose Corp. of America (United States); P. S. Wijewarnasuriya, U.S. Army Research Lab. (United States); A. C. Samuels, A. P. Snyder, Edgewood Chemical Biological Ctr. (United States)

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SESSION 8 APPLICATIONS OF EXPLOSIVES DETECTION II

8710 0W **Feasibility studies on explosive detection and homeland security applications using a neutron and x-ray combined computed tomography system** [8710-37]
V. Sinha, A. Srivastava, H. K. Lee, X. Liu, Missouri Univ. of Science and Technology (United States)

8710 0X **A review of sensor data fusion for explosives and weapons detection** [8710-38]
M. C. Kemp, Iconal Technology Ltd. (United Kingdom)

8710 0Y **A simulation study of detection of weapon of mass destruction based on radar** [8710-39]
E. Sharifahmadian, Y. Choi, S. Latifi, Univ. of Nevada, Las Vegas (United States)

8710 0Z **Dual-excitation wavelength resonance Raman explosives detector** [8710-40]
B. Yellampalle, M. Sluch, H.-S. Wu, R. Martin, W. McCormick, R. Ice, B. E. Lemoff, WVHTC Foundation (United States)

8710 10 **Explosives detection using quantum cascade laser spectroscopy** [8710-41]
J. R. Castro-Suarez, Y. S. Pollock, S. P. Hernandez-Rivera, Univ. of Puerto Rico Mayagüez (United States)

8710 11 **Explosive vapor detection payload for small robots** [8710-42]
P. J. Stimac, M. Pettit, J. P. Wetzel, J. W. Haas III, Applied Research Associates, Inc. (United States)

8710 12 **Investigation of molecular and elemental species dynamics in NTO, TNT, and ANTA using femtosecond LIBS technique** [8710-43]
S. Sunku, E. Nageswara Rao, G. Manoj Kumar, S. P. Tewari, S. Venugopal Rao, Univ. of Hyderabad (India)

SESSION 9 ADVANCES IN BIOLOGICAL DETECTION I

8710 13 **Models to support active sensing of biological aerosol clouds** [8710-44]
A. M. Brown, J. M. Kalter, E. C. Corson, Z. Chaudhry, N. T. Boggs, D. M. Brown, M. E. Thomas, C. C. Carter, Johns Hopkins Univ. Applied Physics Lab. (United States)

8710 17 **Understanding water uptake in bioaerosols using laboratory measurements, field tests, and modeling** [8710-48]
Z. Chaudhry, S. A. Ratnesar-Shumate, T. J. Buckley, J. M. Kalter, J. U. Gilberry, J. P. Eshbaugh, E. C. Corson, Johns Hopkins Univ. Applied Physics Lab. (United States); J. L. Santarpia, Sandia National Labs. (United States); C. C. Carter, Johns Hopkins Univ. Applied Physics Lab. (United States)

8710 18 **Wavelength resolved polarized elastic scatter measurements from micron-sized single particles** [8710-49]
V. Sivaprakasam, J. Czege, J. D. Eversole, U.S. Naval Research Lab. (United States)

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SESSION 10 ADVANCES IN BIOLOGICAL DETECTION II

8710 19 **Microorganisms detection on substrates using QCL spectroscopy** [8710-50]
A. C. Padilla-Jiménez, W. Ortiz-Rivera, J. R. Castro-Suarez, C. Ríos-Velázquez, I. Vázquez-Ayala, S. P. Hernández-Rivera, Univ. of Puerto Rico Mayagüez (United States)

8710 1A **Metaproteomics analyses as diagnostic tool for differentiation of Escherichia coli strains in outbreaks** [8710-51]
R. E. Jabbour, J. D. Wright, U.S. Army Edgewood Chemical Biological Ctr. (United States); S. V. Deshpande, Science & Technology Corp. (United States); M. Wade, U.S. Army Edgewood Chemical Biological Ctr. (United States); P. McCubbin, OptiMetrics, Inc. (United States); V. Bevilacqua, U.S. Army Edgewood Chemical Biological Ctr. (United States)

8710 1B **Advances in synthetic peptides reagent discovery** [8710-52]
B. L. Adams, D. A. Sarkes, A. S. Finch, D. N. Stratis-Cullum, U.S. Army Research Lab. (United States)

SESSION 11 ADVANCES IN RADIOLOGICAL AND NUCLEAR DETECTION I

8710 1C **The MODES_SNM project** [8710-54]
A. Curioni, ETH Zurich (Switzerland)

8710 1D **Combined, solid-state molecular property and gamma spectrometers for CBRNE detection** [8710-55]
B. Rogers, Nevada Nanotech Systems, Inc. (United States); J. Grate, Pacific Northwest National Lab. (United States); B. Pearson, Nevada Nanotech Systems, Inc. (United States); N. Gallagher, B. Wise, Eigenvector Research, Inc. (United States); R. Whitten, J. Adams, Nevada Nanotech Systems, Inc. (United States)

8710 1F **Study and understanding of n/γ discrimination processes in organic plastic scintillators** [8710-57]
M. Hamel, Lab. Capteurs et Architectures Électroniques, CEA, LIST (France); P. Blanc, Lab. Capteurs et Architectures Électroniques, CEA, LIST (France) and Lab. de Photophysique et de Photochimie Supramoléculaire et Macromoléculaires, CNRS, ENS Cachan (France); L. Rocha, S. Normand, Lab. Capteurs et Architectures Électroniques, CEA, LIST (France); R. Pansu, Lab. de Photophysique et de Photochimie Supramoléculaire et Macromoléculaires, CNRS, ENS Cachan (France)

8710 1G **Probing the gamma-scintillation process in semiconductor nanomaterials using ultrafast transient cathodoluminescence** [8710-58]
J. M. Pietryga, L. A. Padilha, W. K. Bae, V. I. Klimov, Los Alamos National Lab. (United States); R. D. Schaller, Argonne National Lab. (United States) and Northwestern Univ. (United States)

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SESSION 12 ADVANCES IN RADIOLOGICAL AND NUCLEAR DETECTION II

8710 1J **Continuous p-n junction with extremely low leakage current for micro-structured solid-state neutron detector applications** [8710-61]
K.-C. Huang, R. Dahal, J. J.-Q. Lu, Y. Danon, I. B. Bhat, Rensselaer Polytechnic Institute (United States)

8710 1K **Neutron/gamma pulse shape discrimination (PSD) in plastic scintillators with digital PSD electronics** [8710-62]
A. L. Hutcheson, D. L. Simonson, M. Christophersen, B. F. Phlips, N. A. Charipar, A. Piqué, U.S. Naval Research Lab. (United States)

8710 1L **An imaging neutron/gamma-ray spectrometer** [8710-63]
A. C. Madden, P. F. Bloser, The Univ. of New Hampshire (United States); D. Fourguette, L. Larocque, Michigan Aerospace Corp. (United States); J. S. Legere, The Univ. of New Hampshire (United States); M. Lewis, Michigan Aerospace Corp. (United States); M. L. McConnell, M. Rousseau, J. M. Ryan, The Univ. of New Hampshire (United States)

POSTER SESSION

8710 1O **Femtosecond LIBS studies of nitropyrazoles** [8710-65]
E. Nageswara Rao, S. Sunku, S. P. Tewari, G. Manoj Kumar, S. Venugopal Rao, Univ. of Hyderabad (India)

8710 1P **LIBS controls characterization of predictor corrector-based LIBS data collection** [8710-66]
A. Sanders, S. T. Griffin, Univ. of Memphis (United States)

Author Index

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1 Advances in Spectroscopic Chemical Detection I
Christopher C. Carter, Johns Hopkins University Applied Physics Laboratory (United States)

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2 Advances in Spectroscopic Chemical Detection II
Christopher C. Carter, Johns Hopkins University Applied Physics Laboratory (United States)

3 Advances in Spectroscopic Chemical Detection III
Matthew T. Griffin, General Dynamics Armament and Technical Products (United States)

4 Advances in Chemical Point Detection
Matthew T. Griffin, General Dynamics Armament and Technical Products (United States)

5 Advances in Standoff Explosives Detection I
Anna Tedeschi, Strategic Analysis, Inc. (United States)

6 Advances in Standoff Explosives Detection II
Anna Tedeschi, Strategic Analysis, Inc. (United States)

7 Applications of Explosives Detection I
Anna Tedeschi, Strategic Analysis, Inc. (United States)

8 Applications of Explosives Detection II
Anna Tedeschi, Strategic Analysis, Inc. (United States)

9 Advances in Biological Detection I
Jerome J. Braun, MIT Lincoln Laboratory (United States)

10 Advances in Biological Detection II
Jerome J. Braun, MIT Lincoln Laboratory (United States)

11 Advances in Radiological and Nuclear Detection I
James Placke Jr., Y-12 National Security Complex (United States)

12 Advances in Radiological and Nuclear Detection II
Harry Ing, Bubble Technology Industries, Inc. (Canada)

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Introduction

This year's conference was especially bitter sweet from my perspective. Coming off last year's successful move of the Defense Security and Sensing Symposium from Orlando to Baltimore, this year the combined effects of sequestration and travel restrictions caused a number of Department of Defense authors to be forced to withdraw or send substitute presenters. Despite these limitations, participation throughout the conference was at least on par with last year–or at least I am told, since I myself was not allowed to attend the conference in person and had to experience it vicariously through my session chairs. With that, I have to thank the session chairs who were approved to attend by their parent organizations and without whom I would not have been able to pull this conference off: Dr. Chris Carter, Dr. Anna Tedeschi, Dr. Jerome Braun, Dr. Jim Placke, and Mr. Harry Ing. Without your tireless support chairing the individual sessions, this conference would have been an utter failure. I also need to thank Rebecca Bruan and Greg Mogilevsky, my SETA support contractors for giving me the play by play analysis of each talk and a daily report on the conference.

Chris Carter did an excellent job chairing the chemical sensing sessions on Day 1. The most vivacious talk was given by Timothy Wilkinson from DeCipher. His talk was titled "Development of SERS monitoring of fuel markers to prevent fraud". He uses a proprietary SERS marker to label government subsidized fuels in Ecuador and the Philippines. He and his team dose fuel in trucks that make deliveries to large tankers with the Ag based marker, and check fuel tankers at various ports. Pirates from tankers who steal the government subsidized fuel are caught at the ports. He made it clear that because of success of the SERS techniques "he is able to catch criminals where people are in jail, hung, and shot. This is serious business". At another point I am told that he said "The session chair, Dr. Augustus Way Fountain, has said 'why is SERS stuck in the laboratory?'". To him I answer - it is not, and I use it daily. I'm sorry that I missed the talk and would have appreciated the debate.

Anna Tedeschi chaired Day 2 of the conference. The morning session was full of talks relating to remote detection of explosives techniques; while the afternoon session dealt with applications of explosive detection. The attendance for these talks was quite high and I think the readers will find these papers interesting.

Jerome Braun soldiered on chairing the biological detection talks in Day 3, where unfortunately there were two cancelled talks when the speakers unexpectedly did not show up. The additional time was used to address the questions from other speakers. On theis day especially, many talks had replacement speakers; typically contractors speaking on behalf of the government principle investigator. Jim Placke and Harry Ing both covered the radiation and nuclear sensing sessions; also on Day 3. There were some very interesting talks presented that

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showed novel materials for neutron and alpha radiation detection. The group from the French Nuclear Commission presented novel plastic scintillation devices that were able to discriminate between alpha and neutron radiation at a cost of $0.06/gram. The Australian group from University of Western Australia presented CdMnTe detectors, which are produced with much greater efficiency than the commercial CdZnTe detectors and are able to produce a signal on par with the commercial device. Finally, there are many advances in other solid state detectors to replace the gas 3He detectors.

The final day was a joint session with Micro- and Nano- technologies for Standoff Detection. Unfortunately, there were a number of cancellations. Athough not a talk discussing standoff detection, the talk by Jay Grate was interesting. It was a talk centered around monitoring supercritical CO_2 diffusion and flows through a device designed to mimic sediment rock interfaces.

I hope that this was helpful in recapping the conference. Overall, given the lack of Government participation, travel restrictions, sequestration and even with the multiple cancellations, this was a very successful and interesting conference. I look forward to next year's conference and hopefully I will even be able to attend.

Augustus Way Fountain III, Ph.D.

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