

2018 IPS Seminar Presentations – as of 09-MAR-2018

<p>Measurement Methods</p>	<p>019 <i>A Multi-Sensor System for Measuring the Irradiance and Velocity of Live-Fired Red-Light-Emitting Pyrotechnic Tracers</i> <u>Jay Poret</u>, Michael Pagonis, Christel Kelly, Herbert Bachmann (USA) 048 <i>Measurement of Combustion Byproducts in Small Arms Blowback Gases</i> <u>Adam Jacob</u> (USA) 088 <i>Edgerton Shadowgraphy and Schlieren Imaging of Explosions using a Pulsed Light Source</i> <u>Kevin McNesby</u>, R. Sparks, R. A. Benjamin (USA)</p>
<p>Integrated Devices and Systems</p>	<p>015 <i>Design and Performance of a Micro Interrupted Igniter Train</i> <u>Chengai Wang</u>, Yinghua Ye, Ruwen Wang (CHINA) 017 <i>Development of a Miniature, Fully Integrated, Multipoint Initiation System for Flares: CASSIS</i> <u>Jean-Laurent Pouchaire</u>t, Andres Belisario, Andrea Nicollet, Dominique Medus, Carole Rossi (FRANCE) 022 <i>Ariane 6 Launcher: New Challenges for Pyrotechnical Functions</i> <u>Ludovic Glavier</u>, Felipe Medina (FRANCE) 052 <i>A Safety Criteria for Opto-Pyro Trains</i> <u>Bernard Chamayou</u> (FRANCE) 055 <i>M856A1 Tracer Composition Studies – Effects of Configuration on Performance</i> <u>Christopher Csernica</u>, Jay Poret, Dan Mansfield (USA)</p>
<p>Sound, Sparkle, and Special Effects</p>	<p>021 <i>Pyrotechnic Sound Compositions</i> A.E. Cardell, <u>Trevor Griffiths</u> (UK) 058 <i>Electromagnetic Amplification of Pyrotechnic Emissions</i> <u>Eric Miklaszewski</u>, Jonathan Dilger, William Crespo, James Michael, Stuart Barkley, Travis Sippel (USA) 079 <i>The Development of Barium-Free Hand-Held Sparkler Firework</i> <u>Magdalena Rusan</u>, Stefan Schwarzer (GERMANY)</p>
<p>Safety</p>	<p>032 <i>Mitigating Inadvertent Ignition of Pyrotechnic Stores, DSTL/CP105716 v1</i> <u>Grahame Poulson</u>, Robert Brown (UK) 054 <i>Lessons from LCAAP Explosion and Energetic Testing Protocol to Address Safe Working Parameters of Primary Explosives</i> <u>Christopher Csernica</u>, Dan Mansfield (USA)</p>

	<p>063 <i>Improvement of Low Temperature Autoignition Material for Active Mitigation of Rocket Motors</i> <u>Scott Hall</u> (USA)</p> <p>064 (Keynote) <i>Takata Airbag Propellant Degradation</i> <u>Harry Blomquist</u> (USA)</p> <p>072 (Invited) <i>Initiatives in Explosive Safety Management</i> <u>Chitra Rajagopal</u> (INDIA)</p>
Green Pyrotechnics	<p>016 (FC Bursary) <i>The Development of Strontium-/Chlorine-Free Flare and Strobe Formulations Based on Lithium</i> <u>Johann Glück</u>, Thomas Klapötke, Jesse Sabatini (GERMANY & USA)</p> <p>031 <i>A Chlorine-free Pyrotechnic Strobe System for Multiple Colors</i> <u>Alicia Dufter</u> (GERMANY)</p> <p>080 <i>The Investigation of Environmentally Benign Purple-Colored Pyrotechnics</i> <u>Magdalena Rusan</u> (GERMANY)</p>
Delays	<p>023 <i>Gasless Pyrotechnic Time Delay Compositions – A Review</i> <u>W. W. Focke</u>, S. M. Tichapondwa, Y. C. Montgomery, J. M. Grobler, M. L. Kalombo (S. AFRICA)</p> <p>053 <i>Manganese Fueled Pyrotechnic Time Delay Composition</i> <u>Shepherd Tichapondwa</u>, Willem Roux, Walter Focke (S. AFRICA)</p> <p>061 <i>Experimental and Modeling Studies of Environmentally Benign Tunable Pyrotechnic Delay Systems</i> Matthew Puszynski, Daniel Perkins, <u>Jan Puszynski</u> (USA)</p> <p>074 <i>A Titanium-Based Igniter System for Hand Grenade Fuzes</i> <u>Anthony Shaw</u>, Jay Poret, Lori Groven, Joshua Koenig, Jason Brusnahan (USA & AUSTRALIA)</p>
Initiators	<p>033 <i>Detonation Build-up Process of Exploding Foil Initiators</i> <u>Chen Qing-chou</u>, Ma Tao, Li Yong (CHINA)</p> <p>043 <i>Research on the Ignition Performances of Al/CuO Energetic Igniters</i> <u>Yong Li</u>, Liang Wang, Tang Duo, Wenzhi Qin, Xiangbo Ji, Yuan Gao (CHINA)</p> <p>046 <i>Development of Low Toxicity Primer Composition</i> <u>Marc Palardy</u>, Benoit Jolicoeur, Daniel Lepage (CANADA)</p>
Nanoenergetics	<p>001 <i>High Resolution Raman Spectroscopies: New Characterisation Methods Developed to Investigate the Structure of Nanometric Energetic Formulations</i> <u>Denis Spitzer</u>, Jakob Hübner, Marc Comet (FRANCE/GERMANY)</p>

	<p>006 <i>Advanced High Energy Nanomaterials via Continuous Spray Flash Evaporation (SFE)</i> <u>Martin Klaumünzer</u>, Marc Comet, Denis Spitzer (FRANCE/GERMANY)</p> <p>050 <i>Thermochemical and Pressure Studies of Aluminum/Nickel Oxide/Fluoropolymer Nano-Energetic Composites</i> <u>M. L. Tan</u>, S. Pisharath, H. H. Hng (SINGAPORE)</p> <p>062 (FC Bursary) <i>Nanosized Thermites and Explosives (NSTEX) Compositions: The Bridge Between Pyrotechnics and Explosives</i> <u>Cédric Martin</u>, Marc Comet, Fabien Schnell, Denis Spitzer (FRANCE)</p>
Propellants	<p>013 <i>Ignition and Combustion Performance of Photosensitive Propellant for Laser-Augmented Chemical Propulsion</i> <u>Haonan Zhang</u>, Lizhi Wu, Ning Guo, Zuohao Hua, Haoyu Wang, Buren Duan, Yinghua Ye, Ruiqi Shen (CHINA)</p> <p>018 <i>Measurement of Flame Temperatures of some Azodicarbonamide/Ammonium Nitrate Based Mixtures</i> <u>Shingo Date</u>, Arata Tanaka (JAPAN)</p> <p>047 <i>Active Interruption of an Ammonium Perchlorate Composite Propellant Combustion and its Reignition in a Motor</i> <u>Masafumi Tanaka</u>, Yosuke Meichin, Masashi Yamakami (JAPAN)</p>
Theory and Computation	<p>009 <i>Comparison of Air Blast/Afterburning Modelling with Height of Burn Tests</i> <u>Jing Ping Lu</u>, Jeremy Anderson (AUSTRALIA)</p> <p>020 <i>Energetic Materials Designing Bench (EMDB)</i> Mohammad Keshavarz, <u>Thomas Klapötke</u>, Muhamed Sućeska (GERMANY)</p> <p>038 <i>Modelling of Thermite Mixtures</i> <u>Sebastian Knapp</u>, Norbert Eisenreich, Stefan Kelzenberg, Evelin Roth, Volker Weiser (GERMANY)</p> <p>051 <i>Study on the Acceleration Characteristics of a Polyimide Flyer Driven by an Electric Explosion and Its Impact on LiF Window Using a Dynamic Simulation Model and PDV Test</i> <u>Wanjun Wang</u>, Qiubo Fu, Mingshui Zhu, Xiaohua Jiang (CHINA)</p> <p>076 <i>Effect of HMX Distribution and Plasticizer Content Variations on the DMA Loss Factor of HTPB-IPDI Binder</i> <u>Manfred Bohn</u>, Peter Gerber, Thomas Heintz, Michael Herrmann (GERMANY)</p> <p>083 <i>The Brinkman Number as a Dimensionless Scale-up Factor for Colored Smoke Generation</i> <u>Randall Busky</u> (USA)</p>
Smoke	<p>008 <i>Multi-Colored Smoke Signals Applying the Concept of Fuel Mixes</i> <u>Teresa Küblböck</u>, Johann Glück, Thomas Klapötke (GERMANY)</p> <p>011 (BED YS Award) <i>Pyrotechnically Generated and Disseminated Aerosol for Bio-Agent Defeat</i> <u>Ame Polk</u>, Lisa Smith, Michael Kauzlarich, Nino Bonavito, Vipin Rastogi (USA)</p>

	<p>012 <i>Development and Testing of Hygroscopic Stannous Chloride</i> <u>Giancarlo Diviacchi</u> (USA)</p>
3D Printing	<p>036 <i>On the Fly Mixing and 3D Printing of AL/CUO Thermite for Controlling Reactivity</i> <u>A. M. Golobic</u>, M. M. Durban, E. B. Duoss, A. E. Gash, K. T. Sullivan (USA)</p> <p>040 <i>Polymer Resin Systems for Precision Direct-Ink-Write Printing of Thermite-Loaded Inks</i> <u>Eric Bukovsky</u>, B. M. Howell, H. P. Martinez, M. D. Durban, M. D. Grapes, A. M. Golobic, K. T. Sullivan, A. E. Gash (USA)</p> <p>075 <i>Characterizing the Material Structure and Deflagration Profile of Additive-Manufactured Energetic Materials</i> <u>Cameron Brown</u>, Vilem Petr (USA)</p> <p>077 <i>Printed Primers for Next-Gen Ammunition</i> <u>Zac Doorenbos</u>, Andrew Ihnen, Jonathan Essel, Matthew Kubik, Hannah Moody, Alicia Hughes (USA)</p> <p>090 <i>3D Printing of Gun Propellants</i> <u>Chris van Driel</u>, Michiel Straathof, Arjan den Otter, <u>Joost van Lingen</u> (NETHERLANDS)</p>
Advanced Manufacturing Technologies	<p>039 <i>Nanocrystallization of Ammonium DiNitramide (ADN) by Spray Flash Evaporation (SFE)</i> <u>Jean-Edouard Berthe</u>, Denis Spitzer (FRANCE)</p> <p>057 <i>Safer Resonant Acoustic Mixing Methods for High-Volume Production of Pyrotechnics</i> <u>Eric Miklaszewski</u>, Christina Yamamoto, Joel Dunham, Anthony Shaw (USA)</p> <p>060 <i>Using RAM Technology to Mix Primary Explosive Based Composites for Additive Manufacturing</i> <u>Robert Cook</u>, <u>Matthew Puszynski</u>, Daniel Perkins, Gartung Cheng, Neha Mehta (USA)</p> <p>073 (Invited) <i>Advanced Manufacturing of Energetic Materials: Rheology to Application</i> <u>Lori Groven</u> (USA)</p>
Explosives and Detonics	<p>003 <i>Solid State Fuel-Air Explosives</i> <u>Robert Weinheimer</u>, Stefan Kolev, Tsvetomit Tsonev (USA & BULGARIA)</p> <p>066 <i>High Explosively Driven Plate Fragmentation and Impact Characterization</i> <u>Michael Maestas</u>, Vilem Petr (USA)</p> <p>067 <i>Modeling Detonation in Non-Ideal Explosives using High-Order Shock Capturing Methods</i> <u>Eduardo Lozano</u>, Vilem Petr (USA)</p> <p>068 <i>Characterizing the Detonation and Blast Wave Characteristics from Commercial Detonating Cord</i> <u>Eduardo Lozano</u>, Vilem Petr (USA)</p> <p>078 <i>Synthesis and Characterization of Some New Melt-Castable Explosive Materials</i> <u>Jesse Sabatini</u>, Eric Johnson, David Chavez (USA)</p>

System Life Cycle Management	005 <i>An Experimental Method for Rocket Motors Life Extension</i> <u>Tzvi Shoham</u> , Yevgenia Normatov (ISRAEL) 037 <i>Flare Life Cycle Analysis</i> <u>Rebecca Millar</u> , M. R. Andrews, W. Babcock (UK/BELGIUM) 045 <i>Accelerated Aging of MTV</i> <u>Caroline Wilharm</u> , Audrey Duke (USA) 082 <i>Ballistic Performance Assessment is a must for Shelf Life Assessment of Rocket Motors</i> <u>Mohammad Sammour</u> (EGYPT) 085 <i>Moisture Stable Igniter Composition</i> Girish Srinivas, <u>Brady Clapsaddle</u> , Mike Looker, Robert Bolskar (USA)
------------------------------------	--