Workshop on Pyrotechnic Combustion Mechanisms Series

1st, 10 July, 2004, Fort Collins, USA,
- B. Berger, Factors influencing pyrotechnic reactions
- D. Dolata, Reassessment of the blue light emitter in copper containing pyrotechnic flames
- E. Dreizin, Ignition of Aluminium powders under different experimental conditions
- J. Garnier, Ignition and Combustion of Nanocomposite Al/MoO₃
- T. M. Klapötke, Mechanistic studies concerning the hypergolic ignition between monomethylhydrazine (MMH) and dinitrogen tetroxide (NTO)
- E.-C. Koch, The HSAB principle and its application to energetic materials
- K. Kosanke, Metal Monochloride Emitters in Pyrotechnic Flames — Ions or Neutrals?
- R. Webb, Using Thermodynamic Codes to Simulate Pyrotechnic Reactions
- V. Weiser, Fast emission spectroscopy for a better understanding of pyrotechnic combustion behaviour.

2nd, 27th June, 2005, Pfinztal, Germany,
- M. Bohn, Decomposition Parameters of Energetic Components – Experimental Determination Supported by Quantum Chemical Calculations
- S. Cudziło, Formation of Carbon Based Nanostructures by Combustion of Reductant-Halocarbons Mixtures
- M. Eremets, Polymeric Nitrogen
- S. M. Peiris, LASER-INITIATED REACTIONS OF ENERGETIC/ THERMITIC COMPOSITES
- S. Kelzenberg, New Approaches to Model Pyrotechnic Reactions
- H. D. Ladouceur, An Overview of the Known Chemical Kinetics and Transport Effects Relevant to Mg/PTFE Combustion
- P. Politzer, Computational Analysis of C,N,H-Systems

3rd, 15 July, 2006, Fort Collins, USA,
- K. O. Christe, Recent Advances in High-Nitrogen and High-Oxygen Chemistry
- D. Clement, Thermodynamics of Silicon Combustion
- T. Foley, Thermite Handling Practices and Incidents
- D. Holley, Using Taguchi Methodology with Pyrotechnic Systems
- K. Kosanke, An Evaluation of Lightning Thermo Tube ™ as a Pyrotechnic Ignition System
- J. M. Lombard, How to validate Pyrotechnic Initiation Submodels
- J. A. Puszynski, Kinetics and Thermodynamics of Heterogeneous Exothermic Noncatalytic Reactions
- B. Roduit, Thermal Stability Studies on Ammonium perchlorate and different B/KNO₃ compositions
- S. Son, Current Issues in the Combustion of Nanoscale Composite Energetic Materials
- V. Weiser, AlH₃ as an ingredient in energetic materials

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- **4th, 25 June, 2007, Pfinztal, Germany**: Modelling of Reaction Products & Temperatures – Round Robin Test Program
  - J. Campos, Thor
  - R. Claus, NASA-CEA
  - J.J. Gottlieb, CERV
  - S. Kelzenberg, ICT
  - B. Noläng, EKVI
  - M. Suceska, EXPLO
  - E.-C. Koch, V. Weiser, R. Webb, Review

- **5th, 6 October, 2007, Beaune, France**
  - M. Bohn, Thermal Stability of Hydrazinium Nitroformate (HNF)
  - S. Burns, Personal Protective Equipment
  - A. Dolgoborodov, Mechanoactivated Energetic Compositions on the Base of Meta-Oxidizer Mixtures
  - P. Gillard, Laser diode ignition of some pyrotechnic mixtures: Experimental and Numerical studies
  - A. Hahma, Combustion of Aluminium in Detonation
  - A. Hahma, Combustion of Aluminium at High Pressures
  - T. Kuwahara, Combustion Characteristics of Blackpowder Pyrolant
  - D. Spitzer, Synthesis, structural and reactive characterization of miscellaneous nanothermites
  - V. Weiser, Modelling Spectral Emission and Radiant Intensity of Infrared Decoy Flares

- **6th, 12 July, 2008, Fort Collins, USA**
  - B. Berger, Sensitivity of Nanometric Thermite Compositions
  - K. O. Christe, Recent Progress in High-Oxygen Carriers of Interest as Green Replacement for AP and Hydrazine
  - T. M. Klapötke, High Performance Replacements for Pyrotechnic Compositions
  - E.-C. Koch, Performance Modification of Magneisum/Teflon/Viton (MTV)
  - B. Roduit, Determination of SADT and Cook-off Ignition Temperature by Advanced Kinetic Elaboration of DSC Data
  - S. Subramanian, Nanoporous Silicon for Energetic Applications

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- **7th, 22 August, 2009, Rotterdam, Netherlands.**
  - E. L. Charsley, Thermal Studies on Alkali Metal Dinitramides
  - A. Gash, Fabrication and Processing of Nanostructured Energetic Composites by Non-Traditional Methods
  - T. T. Griffiths, Techniques used to Study the Ignition of Pyrotechnic Compositions
  - B. Hidding, Overview on Higher Silanes as Fuels, Combustion Enhancers and Energetic Materials
  - A. Pivkina, Combustion of Energetic Materials: Condensed-Phase Reaction Models Based on Experimental Thermal Decomposition Kinetics
  - K. Tarantik, Salts of 1-(2-Chloroethyl)-5-nitriminotetrazole – New Pyrotechnic Colorants
  - V. Weiser, Combustion Behavior of Metal Particles as Bulk Materials under Different Gases

- **8th, 14 May, 2011, Reims, France.**
  - M. Comet, Control of the Reactivity of Phosphorus-Based Nanothermites Nanocalorimetry for the characterization and the detection of energetic materials
  - J. Corbel, Understanding Strobe Reactions
  - A. Dolgoborodov, Silicon Based Mechanoactivated Energetic Nanocompositions
  - C. Rossi, Multifunctional Nano-Energetical Material on Chip (extended abstract only)
  - M. Rusan, Some Recent Aspects of Boron and Silicon in Energetic Materials
  - U. Schaller, Triazolium based energetic ionic liquids

- **9th, 9 June, 2012, Denver, USA.**
  - S. Chaudhuri, Aluminum in Oxidizer Medium, First Principles Calculations of Combustion
  - K. O. Christe, Novel High-Oxygen Carriers for Use in Explosives and Propellants
  - L. Groven, Reactive Aluminum-Fluorocarbon Composite Particles
  - S. Knapp, A new approach on modelling granular pyrotechnic reactions
  - S. Son, The effect of doping on the combustion and reaction kinetics of silicon reactives

- **10th, 25 May, 2013, Valencia, Spain.**
  - K. O. Christe, High Oxidation State Iodine Oxides for Bio-Agent Destruction
  - W. DeKlerk, Green Energetics – Why to go green? The difference shades of green; the challenges to go to less toxic and more environmental benign energetic materials
  - M. Rusan, Energetic Materials Based on Azole Borates
  - S. Scheutzow, High Nitrogen Materials for Near Infrared Illuminants
  - K. Sullivan, Nanocomposite Thermites, Probing Phenomena at Various Time and Length Scales
  - T. VanBeneden, NATO support to the demilitarization of pyrotechnics

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• 11th, 12 July, 2014, Colorado Springs, USA.
  - M. C. Grubelich, Green- does it make sense (Cents)?
  - J.A. Puszynski, Additive Manufacturing Techniques For Composite Energetic Materials
  - M. Rusan, Development of Environmentally benign Pyrotechnic Formulations Based on Energetic Boron Compounds, Nitrogen Rich Metal Salts and Copper Iodate.
  - C. M. Sabate, (E)-1,1,4,4,-Tetramethyltetrazene – And Energetic Derivatives Thereof
  - A. P. G. Shaw, Factors Affecting Burning Rate in Boron Carbide-Based Pyrotechnics
  - A. S. Tappan, Critical detonation thickness in vapor-deposited hexanitroazobenzene (HNAB) films with different preparation conditions

• 12th, 9 July, 2016, Grand Junction, USA.
  - J. Brusnahan, Ceramic Fuels in Pyrotechnics
  - M. Comet, Hybrid Nanothermites
  - W. Focke, Green Time Delays
  - S. Knapp, Emission Spectroscopy on Pyrotechnic Mixtures
  - S. Son, Taylored Energetic Materials
  - T.W. Myers, Explosive Chromophores

• 13th, 26 June, 2017, Pfinztal, Germany
  - L. Catoire, Detailed Chemical Kinetic Models for Nanothermites Combustion
  - M. Comet, Nanothermites:From Deflagration to Detonation (NSTEX); From Loose Powder to Object (NT-Foams)
  - Z. Doorenbos, Bottom Up Fabrication of Pyrophoric Substrates and Structures Utilizing Iron Nanoparticles
  - A. Gromov, New Avenues by Thermites Combustion X-rays and Nuclear Processes
  - A. Kuhl, Hydrodynamics of Pyrotechnic Explosions
  - W. G. Proud, Shock and ignition Properties of Thermites
  - C. Weinhold, Glass-based Thermites
  - V. Weiser, Theoretical and experimental evaluation of performance data and reactivity of thermite systems

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