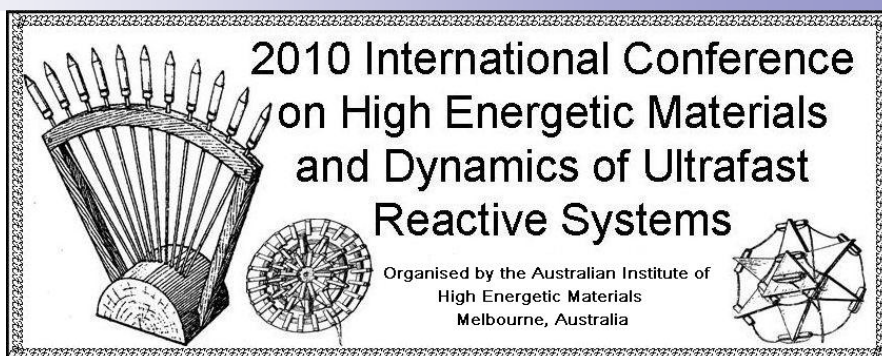


Scientific Program and call for papers

<http://www.ausihem.org>



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Important Announcement:

The 2010 International Conference on High Energetic Materials and Dynamics of Ultrafast Reactive Systems will run as a V-Conference using an established online platform. This allows us to run the conference at low cost and to pass the savings to the conference partakers. The standard full registration fee is 180 Euros and the student registration fee is 120 Euros.

The Honorary Fellows and Research Associates of the Australian Institute of High Energetic Materials and the members of the Scientific Committee participate **free of charge**. For enquiries email:

contact@ausihem.org

Preamble

Expert knowledge and the safe handling of explosives, propellants and pyrotechnics is of vital importance to the defence forces and to the civil community. Numerous energetic materials have been developed recently for various chemical propulsion applications. Significant advancements in energetic material synthesis, characterisation, and model simulation have also been made in recent years. It is expected that this trend will continue even at a greater pace in the future. Nano-sized ingredients and certain novel components deserve special attention, since they offer specific advantages for both military and commercial applications in the chemical propulsion field. Energetic nanomaterials

offer the potential of extremely high heat release rates, extraordinary combustion efficiency, tailored burning rate, and reduced sensitivity.

The 2010 International Conference on High Energetic Materials and Dynamics of Ultrafast Reactive Systems brings together scientists from many countries working in government laboratories, research universities and private industry to discuss state-of-the-art research on explosives, pyrotechnics and propellants. The meeting is an important venue for presenting cutting edge fundamental research into the chemistry, physics and materials properties associated with ignition, combustion, detonation, ageing, thermal decomposition



Dr Alexander Lukin
Chair of the Scientific Monitoring and Advisory Committee

and mechanical damage of energetic materials.

Selected papers will be published in the International Journal of Energetic Materials and Chemical Propulsion and in the 2010 Annual Bulletin of the Australian Institute of High Energetic Materials.

Main Topics

The main topics of the conference include, but are not limited to:

- Combustion Mechanisms of the Energetic Materials;
- Combustion/Flow Visualisation;
- Internal Ballistics of Solid Motors and Guns;
- Ignition and Combustion of Propellants for Space and Rocket Propulsion;
- Theoretical Modelling and Numerical Simulation of Combustion Processes of Energetic Materials;
- Commercial Applications of

- Energetic Materials;
- Hybrid Rocket Propulsion for Future Space Launch;
- Nano-technology;
- Nano-particles in energetic materials;
- Synthesis and Characterisation;
- Formulation, Processing and Manufacturing;
- Insensitive Munitions;
- Performance of Propellants, Pyrotechnics and Explosives;
- Recycling, Disposal and Environmental Aspects;
- Test Methods and Diagnostics;

- Visualisation of the combustion processes of the energetic materials;
- Ignition and Initiation Processes;
- Thermobarics and Thermites;
- Combustion Instability Risks;
- Solid rocket combustion instability;
- Flame zone physicochemistry in solid rocket instability;
- Environmentally Friendly Energetic Materials;
- Internal structure of the burning wave.

Information on the operational mode of the Conference:

Australian Institute of High Energetic Materials is one of the developers of the concept of Virtual (Online) Scientific Conferences and Symposia, also known as V-Conferences.

A V-Conference is a very affordable, flexible and modern form of conferencing, which allows saving of both time and money without compromising on the scientific merit of the publications.

General information on how do the V-Conferences operate can be found here:

http://www.ausibem.org/index.php?p=1_33

A trial version of the Online Direct Discussion Session of the symposium can be found here:

http://www.ausibem.org/conf_papers/

Contacts:

Postal address:
2010 ICHM
P.O. Box 8141
Monash University LPO
Wellington Road, Clayton, VIC 3800
Australia

All correspondence should be emailed to the Secretariat of the conference: 2010ichem@ausihem.org or in some exceptional cases faxed to: +61 (3) 8774 1491

No submissions via ordinary mail are accepted.

Important dates:

- **05.11.2010** - Deadline for submission of abstracts;
- **19.11.2010** - Deadline for registration and submission of all types of manuscripts;
- **06.12.2010** - The Online Direct Discussion Sessions (ODDS) opens;
- **19.12.2010** - The ODDS ends;
- **31.01.2011** - Final day for distribution of the proceedings of the conference to the registered participants.

All manuscripts will be peer reviewed. Selected papers will be published in the International Journal of Energetic Materials and Chemical Propulsion and in the 2010 Annual Bulletin of the Australian Institute of High Energetic Materials.

Scientific Committee:

Conference Chair:

Dr Alexander N. Lukin

Executive Director of the Western-Caucasus Research Center
Tuapse, Russian Federation
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Technical Secretary:

Mrs Lilia Stamatova, MSc (Pyrotechnics)

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Director of the Joint Institute for High Temperatures
of the Russian Academy of Sciences,
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Groupe Recherche Propulsion,
SNPE Matériaux Energetiques CRB,
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Prof. F. Cauty

Fundamental and Applied Energetics
Department (DEFA)
Office National d'Etudes et de Recherches
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Head of the Institute of Energetic Materials
Faculty of Chemical Technology, University
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Dr R. Pein

German Aerospace Center
Hardthausen, Germany

Dr V. Bozic

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Ministry of Environment and Spatial
Planning, Republic of Serbia

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Moscow, Russia

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Nanyang Technological University,
Singapore

Prof. S. P. Tewari

Director, Advanced Centre for Research
in High Energy Materials
Central University of Hyderabad, India

Prof. L. T. DeLuca

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Dipartimento di Energetica
Politecnico di Milano, Italy

Prof. V. E. Zarko

Head, Laboratory of Condensed Systems
Combustion
Institute of Chemical Kinetics and
Combustion
Novosibirsk, Russia

Dr R.W. Armstrong

University of Maryland, Maryland, USA

Prof. N. N. Smirnov

Professor at the M.V.Lomonosov Moscow
State University, Russia
Head of Wave Processes Laboratory
Vice-President of the Combustion
Council of Russian Academy of Sciences
Academician of Russian Academy of
Natural Sciences and
Corresponding Member for International
Academy of Astronautics

Dr W. Waesche

Science Applications International
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Department of Aerospace Engineering
Indian Institute of Technology Madras
Chennai, India

Prof. V. S. Abrukov

Head of Department of Thermal Physics
Physico-Technical Faculty, Chuvash
State University, Russia

Prof. H. Singh

University of Pune
Sutarwadi, Pune, India

A/Prof. K. Y.-S. Ouyang

National Taiwan University, Taipei,
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Mr H. Muthurajan

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Singapore

Prof. Manfred Held

MBDA Missile Systems, Germany