



2010 Insensitive Munitions & Energetic Materials Technology Symposium



"International Progress in Insensitive Munitions and Energetic Materials"

Programme

(as of 22 July, 2010)



**11 – 14 October, 2010
München Marriott Hotel
Munich, Germany**

General Information

REGISTRATION:

Payment should be made at time of application. All payments should be made in Euro (€) to ALL ABOUT LIVECOM (AALC) by order and on account of IMEMG.

For any questions, please contact the support agency AALC at imemts2010@aalc.eu

For Conference Registration as well as for Hotel Registration please visit <http://www.imemts2010.eu>

REGISTRATION FEES INCLUDE:

- Admission to all Symposium sessions and exhibits
- One set of Symposium Proceedings (CD ROM)
- Welcome Reception on Monday, 11 October
- Gala Dinner on Tuesday, 12 October
- Three sit down Lunches during the Symposium
- Coffee, tea and soft drink refreshments as well as pastries during the coffee breaks
- Name badges and participants list
- Participation in one of the Leisure Programme events on Wednesday, 13 October, afternoon

ACCOMPANYING PERSON FEE INCLUDE:

- Welcome Reception on Monday 11 October
- Gala Dinner on Tuesday 12 October
- Participation in one of the Leisure Programme events on Wednesday, 13 October, afternoon
- Three sit down Lunches during the Symposium

DRESS CODE:

Business casual except for the Gala Dinner, where lounge suits and cocktail dresses are appropriate.

IDENTIFICATION BADGES:

At the time of registration check-in each participant will be issued an identification badge. Please be prepared to show a government issued photo I.D. Badges must be worn at all Symposium functions.

PROCEEDINGS:

A CD-ROM of Symposium papers and presentations will be given to participants upon check-in at the Symposium Registration Desk.

ENQUIRIES:

For further Symposium information please email: imemg@imemg.org or visit <http://www.imemts2010.eu>

Papers, presentations and electronic copies of posters are due **August 9, 2010**.

Please email them to papers-imemts10@imemg.org

PARTICIPANTS LIST:

A Participants List will be distributed at the Symposium. Your Conference Registration must be received by 09 September 2010 to be included in the list. An updated list will NOT be printed after the Symposium.

CONTACT NUMBERS AT CONFERENCE:

Will be published 2 months before the Conference.

2010 Insensitive Munitions & Energetic Materials Technology Symposium

"International Progress in Insensitive Munitions and Energetic Materials"

11 – 14 October, 2010
München Marriott Hotel
Munich, Germany

Monday, October 11, 2010

16:00–18:00 **On-site Registration**

18:00 **Welcome Reception** sponsored by MBDA Group and TDW 

Tuesday, October 12, 2010

07:00 **On-site Registration**

Session 1: Plenary Session

08:00 **Introduction/Administrative Remarks**
Dr. Helmut Muthig (IMEMG VP Germany, IMEMTS 2010 Organization Committee)

08:10 **IMEMG Keynote Address**
Dr. Paul Wanninger, President IMEMG

08:30 **German MoD Keynote Address**
N.N.

08:50 **MSIAC Recent Military Accident History Review and Energetic Material Trends**
Roger L. Swanson, MSIAC

09:05 **IM in the Field – Experience of Reduced Sensitivity Mortar Cartridges to Actual
Combat Threat Stimuli**
Jeffery Smith, US Army, ARDEC

09:20 **MSIAC Award**
Roger L. Swanson, MSIAC

09:35 **Break** sponsored by Aerojet


A GenCorp Company

10:15 *(Plenary room is split into two single meeting rooms,
please take all your belongings with you. Thank you!)*

Tuesday, October 12, 2010 (cont'd)

Session 1A – Explosive Formulations #1

Chair: Bruno Noguez

- 10:15 **Development and Manufacture of an Insensitive Composition B Replacement Explosive IMX-104 for Mortar applications**
Virgil Fung, BAE Systems, USA
- 10:35 **Additional Properties Studies of DNAN Based Melt-pour Explosive Formulations**
Pierre Pelletier, GD-OTS, Canada
- 10:55 **GUNTONTAL- an Insensitive Melt Cast for Underwater Warheads**
Dr. Per Sjöberg, Eurenco, Sweden
- 11:15 **A Step further for the XF® Explosive Family dedicated to Insensitive Munitions (IM)**
Ana Weckerle, NEXTER, France
- 11:35 **IM Melt cast Compositions based on NTO**
Dr. Christian Spyckerelle, EURENCO, France

Session 1B – Testing #1

Chair: Dr. Jamie Neidert

- RIGHTTRAC Technology Demonstration Program: Preliminary IM Tests**
Patrick Brousseau, DRDC Inc., Canada
- Characterization of Aging, Screening Hazards and IM Testing of Solid Rocket Propellants and Warhead Explosives**
Dr. Robert Little, US Army, AMRDEC, USA
- Qualitative Evaluation of Reaction Pressure of LOVA Gun Propellant Charge by Bullet Impact and Fast Cook-off**
Jun Maruyama, Japan MoD, TRDI, Japan
- Measuring the Blast Output of Aluminised Explosive Charges in a Semi-confined Environment**
Dr. Frederik Mostert, CSIR, South Africa
- An Investigation of an alternate Energetic Material for the Manufacture of Large Calibre Direct Fire Combustible Cartridge Cases**
Enrico Mutascio, Esterline, USA

11:55
-
13:15

Sit down Lunch sponsored by Rheinmetall
and Poster Session



Session 2A – Processing

Chair: Steven Nicolich

- 13:15 **Development of a Production Scale Process for the Manufacture of New IM Pressable PAX-46 Explosive**
Brian Alexander, BAE Systems, USA
- 13:35 **Processing of Energetic Composite Particles by Fluidized Bed Technology**
Thomas Heintz, ICT, Germany
- 13:55 **Nondestructive Inspection of Energetic Materials during Manufacture**
Dr. Wes Cobb, Applied Sonics, USA
- 14:15 **The Research on Mechanical Comminution of Obsolete HTPB Propellant from Rocket Engine**
Dayong Jiang, XRI, China

Session 2B – Standardization

Chair: Patrick Lamy

- Changes to United Nations Test Series 7 for Hazard Division 1.6 Explosive Articles**
Dr. Michael Sharp, MSIAC, Belgium
- STANAG 4178 Ed. 2 – A New, Internationally Accepted Standard For Testing of Nitrocellulose**
Dr. Beat Vogelsanger, Nitrochemie, Switzerland
- Are there Different Test Methods for IM based on STANAG 4439?**
Dr. Gerhard Hubricht, IMEMG, Europe
- Rationalization of IM Test Requirements: The 6°F SCO Test**
Dr. Kerry Clark, US Navy, NSWC, USA

14:35
-
14:55

Break

Tuesday, October 12, 2010 (cont'd)

Session 3A – IM Systems

Chair: Dr. Manfred Bohn

- 14:55 **IMX-104 Qualification**
Sanjeev Singh, US Army, ARDEC, USA
- 15:15 **Achieving STANAG 4439 IM Shaped Charge Requirements on 155mm Shells: An Update**
Bruno Nouguez, Eurenco, France
- 15:35 **Design and Development of an Improved Insensitive Munitions Warhead for the Anti-Torpedo-Torpedo**
Edward Listig, US Navy, NSWC, USA
- 15:55 **Development of an IM Improved Performance Bangalore Torpedo**
Colin Young, Chemring, UK

16:15
-
16:35

Break sponsored by EURENCO



Session 4A – IM Technol. & Issues #1

Chair: Dr. Patrick Brousseau

- 16:35 **IMX-104 HE Loading of 81MM & 120MM Projectiles**
Eric Boykin, US Army, ARDEC, USA
- 16:55 **XP® : A Cost effective Approach for Medium Calibre Insensitive Munitions (IM)**
Christophe Coulouarn, NEXTER, France
- 17:15 **How to get Insensitive Munitions Benefits according to Hazard Classification**
Yves Guengant, Eurenco, France
- 17:35 **Quick Response Application of IM System Solutions: An Example of Applying Lessons Learned to a Successful Quick Low Cost IM Improvement**
Manfred Becker, US Navy, NAVAIR, USA

17 :55

Sessions Adjourn

18 :55

Busses leave for Gala Dinner

19:30
-
23:00

Bavarian Dinner at the Löwenbräukeller
sponsored by BAE Systems and Nexter



Best Poster Award

Session 3B – Modelling

Chair: Dr. Eamon Colclough

- Simulation and Low Velocity Impact Testing on Confined Explosives**
Gert Scholtes, TNO, Netherlands
- Expedited Transition of Propulsion Modeling & Simulation Capability for IM Hazards**
Thomas McCants Jr., Strategic Insight, USA
- Insensitive Munitions Modeling Improvement Efforts**
Stanley DeFisher, US Army, ARDEC, USA
- Modeling & Simulation — an Enabler for IM Development & Assessments**
Thomas Swierk, US Navy, NSWC, USA

Session 4B – Technology Resources

Chair: Melissa Hobbs

- MSIAC IM Databases - An Efficient Toolbox to Assess IM Signature**
Dr. Pierre-François Péron, MSIAC, Belgium
- A History of Sustainable Energetics**
William Ruppert, Hughes Associates, USA
- Using TEMPER's Genetic Algorithm and MSIAC Databases to fit SDT Model Parameters**
Emmanuel Lapébie, CEA, France
- Improving Knowledge of Tactical Rocket Motor Response under Insensitive Munition Threats**
Raymond Coleno, Roxel, France

Wednesday, October 13, 2010

Session 5A – Mitigation #1

Chair: Kenneth Graham

- 08:00 **Mitigation of Thermal Threats to Rocket Motors by Venting Devices Driven by Contracting Shape Memory Alloy Wire**
John Cook, QinetiQ, UK
- 08:20 **Development of a Venting Selection Methodology for Slow Cook-off Mitigation**
Arthur Daniels, US Army, ARDEC, USA
- 08:40 **Slow Cook-off Testing of a Thermally Activated Venting System**
Michael Fisher, Cornerstone Research, USA
- 09:00 **Venting Techniques for Penetrator Warheads**
Stephan Kelley, USAF, Eglin, USA
- 09:20 **General Purpose Bomb Fast Cook-Off Mitigation Technique using Vented Base Plugs**
Tony Walls, US Navy, NSWC, USA

09:40

10:00

Break sponsored by ROXEL



Session 6A – Explosive Formulations #2

Chair: Stephen Struck

- 10:00 **Characterization and Comparison of a High Performance CL-20 Explosive**
Dr. Robert Hatch, ATK, USA
- 10:20 **Transferable Explosive Formulations**
Sara French, AWE, UK
- 10:40 **IM Explosive Replacement for Cratering Charge**
Amy Chau, US Army, ARDEC, USA
- 11:00 **IM Tests of a New IMI Less Sensitive Demolition Charge**
Eli Shachar, IMI, Israel
- 11:20 **PAX-11, A High Performance Booster For IM Applications**
Dr. Melissa Mileham, ATK, USA

11:40

13:00

Sit down Lunch sponsored by NTS
and Poster Session



Session 5B – IM Artillery Session

Chair: Andrew Wilson

- Common Low-cost Insensitive Munitions Explosive Program to Replace TNT and Comp B**
James Rutkowski, US Army, ARDEC, USA
- 155mm HE Projectile Qualification Program**
Charlie Patel, US Army, ARDEC, USA
- Initiation Trials of the IMX-101 Explosive in the M795 Projectile**
Anthony Di Stasio, US Army, ARDEC, USA
- The Insensitive TNT Replacement Explosive IMX-101**
Wendy Balas Hummers, US Army, ARDEC, USA
- IMX-101 HE Loading of 155MM Projectiles**
Scott Faluotico, US Army, ARDEC, USA

Session 6B – Testing #2

Chair: Dr. Brian Fuchs

- Shaped Charge Initiation Test Configuration for IM Threat Testing**
Dr. Ernest Baker, US Army, ARDEC, USA
- Shaped Charge Jet Initiation of High Explosives Equipped with an Explosive Train**
Dr. Werner Arnold, MBDA-TDW, Germany
- Update on the Sub-scale External Fire Test**
Kevin Ford, US Navy, NAWC, USA
- Fast Cook-Off using Liquefied Propane Gas – The Development of an Alternative Test Method**
Jon Toreheim, SAAB Bofors, Sweden
- New French Insensitive 500 lb Bombs**
Laurent Delrieu, DGA, France

Wednesday, October 13, 2010 (cont'd)

Leisure Programme and Tours, incl.

13:00

-

17:00

- Nymphenburg Castle
- Deutsches Museum
- BMW Welt (Factory Tour or Special Tour)
- Munich City Tour
- Brewery Guided Tour

Thursday, October 14, 2010

Session 7A – Synthesis

Chair: Dr. Andrew Sanderson

- 08:00 **Synthesis of DNMT: A New Energetic, Insensitive Melt-pour Ingredient**
Dr. David Price, BAE Systems, USA
- 08:20 **ADNQ – A Low Sensitive Replacement for RDX**
Prof. Thomas Klapötke, LMU Munich, Germany
- 08:40 **Synthesis, Scale-Up, and Recrystallization Studies of 2,6-Diamino-3,5-Dinitropyrazine-1-Oxide (LLM-105)**
Andrew Pearsall, US Navy, NSWC, USA
- 09:00 **Synthesis, Characterization and Combustion of Triazolium Based Salts**
Uwe Schaller, ICT, Germany
- 09:20 **1,2,6,8-Tetranitrocarbazole (TNC): Synthesis, Optimization and Manufacture**
Dr. William Tilford, BAE Systems, USA

09:40
-
10:00

Break sponsored by SEI



Session 8A – Ingredients #1

Chair: Matthew Beyard

- 10:00 **NC Quality Characterization Improvements and its Impact on Single Base Propellant Manufacturing and Performance**
Zachary Higginbotham, ATK, USA
- 10:20 **3,3-Diaminoazoxyfurazan (DAAF) Survey of Performance Testing and Characterization**
Elizabeth Francois, Los Alamos NL, USA
- 10:40 **Detonation Characteristics of Dichlorate(VII) m-tri(4-amino-1,2,4-triazole)Copper(II)**
Dr. Stanislaw Cudzilo, MUT, Poland
- 11:00 **Measurement of CMC-PbN6 Micro-charge Detonation Growth**
Ai-jun He, Beijing Institute of Technology, China
- 11:20 **Development and Qualification of DBX-1 as a Lead Azide Replacement**
Travis Thom, US Navy, NSWC, USA

11:40
-
13:00

Sit down Lunch sponsored by TDA
and Poster Session



Session 7B – Rocket Propellants

Chair: Didier Zanelli

- Evaluation of Less Shock Sensitive Minimum Smoke Propellants in High Performance Composite Cases**
John Esslinger, US Army, AMRDEC, USA
- High Performance Aluminized GAP-Based Propellants – IM Results**
Caroline Nguyen, SNPE, France
- Solid Propellant Rocket Motor Insensitive Munitions, Testing and Simulation**
Dr. Alexander Weigand, MBDA-Bayern-Chemie, Germany
- The Research of Ballistic Properties of Ejection Seats Rocket Motors**
Dr. Bogdan Zygmunt, MUT, Poland
- Replacement of a Doublebase Sustainer by a Smokeless IM Propellant for Shoulder launched Projectiles**
Dr. Klaus Menke, ICT, Germany

Thursday, October 14, 2010 (cont'd)

Session 9A – IM Technol. & Issues #2

Chair: Dr. Wim de Klerk

- 13:00 **U.S. Tri-service Overview of IM and Hazard Classification (HC) Test Coordination**
Kathleen Sterba, US Navy, NSWC, USA
- 13:20 **ASM – Insensitive Munition Program**

Tal Eliash, Rafael, Israel
- 13:40 **Investigation of Aging Effects on Material Properties, Subscale Hazards and Impact Tests for PBXN-109 and PAX-3**
Jamie Fisher, US Army, AMRDEC, USA
- 14:00 **Ageing Behaviour of Composite Rocket Propellant Formulations investigated by DMA, SGA and GPC**
Dr. Manfred Bohn, ICT, Germany
- 14:20 **Mechanical Properties Characterization and Accelerated Aging of Comp C-4 Explosive**
Dr. Ryan Olsen, US Navy, NSWC, USA

14:40
-
15:00

Break sponsored by Chemring



Session 10A – Ingredients #2

Chair: Mike Ervin

- 15:00 **Development of a Single Pot DEMN Formulation**
Dr. Sarah Headrick, ATK, USA
- 15:20 **Further Development and Optimization of IM Melt-Pour Ingredients at Holston Army Ammunition Plant**
Dr. Jacob Morris, BAE Systems, USA
- 15:40 **RDX-based Nanocomposite Granules for Significantly Reduced Shock Sensitivity**

Dr. Hongwei Qiu, Stevens Instit. of Tech., USA
- 16:00 **Novel Plasticizers for IM compliant Solid Propellants**

Dr. Ana Racoveanu, PSI, USA
- 16:20 **AG:GTFA – A Promising Ionic Liquid-based Melt-Pour Explosive Binder**
Michael Adams, ATK, USA

16:40

Sessions Adjourn
Closing Address by IMEMG

Session 9B – Gun Propellants

Chair: Dr. Paul Braithwaite

- Insensitive Propellant for 105mm Artillery for Improved IM**
Dr. Christine Michienzi, US Navy, NSWC, USA
- Propellant Instability Leads International Industry Partners to Qualify New Propellant for the US Army**
Kelly Moran, ATK, USA
- The Development of an M14 Replacement for 120 mm Tank Training Ammunition**

Frederick Paquet, GD-OTS, Canada
- TEGDN, Sensitivity Reducing Ingredient for Nitrocellulose Based Propellants**

Jaana Suuronen, Eurenco, Finland
- Less Sensitive and “Green” Propellant**
Charles Wiehahn, Rheinmetall-Denel, South Africa

Session 10B – Mitigation #2

Chair: Dr. Michael Sharp

- Venting of Anti-Armor Warheads to Mitigate Cook-Off Threats**
Nausheen Al-Shebab, US Army, ARDEC, USA
- Fast Cook-off Mitigation in Large Rocket Motors**

Kenneth Graham, Aerojet, USA
- The Demonstration of a Predictive Modelling Approach to the Design of Mass Efficient Fragment Mitigation Systems**
William Huntington-Thresher, QinetiQ, UK
- Venting Technology for Large Caliber Gun Propulsion Systems – Metal Cartridge Case and Packaging Container Venting**
Duncan Park, US Army, ARDEC, USA
- The Potential of Reactive Material Particle Impact Mitigation Sleeve Liners**
Dr. Kenneth Lee, US Army, ARDEC, USA

Poster Session

The Effects of Venting on the Ballistic Performance and Insensitive Munitions (IM) Properties of Gun Propellants

Thelma Manning, US Army, ARDEC, USA

Combustion Instability of the Energetic Materials: From Microstructures of Physical Fields to Macroscale Properties

Dr. Alexander Lukin, Western Caucasus Research Center, Russia

Origin of Test Requirements and Passing Criteria for the Qualification and Final (Type) Qualification of Explosives

Ken Tomasello, US Navy, NSWC, USA

IM HE Loading of 155MM XM1122 Training Projectiles

Eugene LaBuz, US Army, ARDEC, USA

Synchronization of IM and HC Testing: The Navy Perspective

Dr. Kerry Clark, NSWC, USA

Processing and Characteristics of Foamed Propellants

Jutta Boehnlein-Mauss, ICT, Germany

ARDEC Flexible Prototype Facility

Patrick Dwyer, US Army, ARDEC, USA

Development of Waxes-based Fuel for Hybrid Rockets

Gad Hartman, IMI, Israel

Integration of 40mm Insensitive Munitions Upgrades into Production

Adam Sorchini, US Army, ARDEC, USA

Mortars Insensitive Munitions Program

Nickolas Baldwin, US Army, ARDEC, USA

Study on Preparation of a Novel Fire Signal Composition Based on Obsolete HTPB Propellant

Dayong Jiang, XRI, China

Kinetic Modelling for the Thermal Decomposition of Solid Propellant

Christophe Boulnois, Nexter, France

Modelling of Intumescent Coatings Growth: Simulations from Lab-scale to the Large one

Dr. Fabian Chassagne, DGA, France

Shock Sensitivity of Novel IHE Main Charge Formulations

Helen Flower, AWE, UK

Numerically Designing Shielding that Mitigates Sympathetic Detonation Between Warheads in a Shipboard Configuration

Jim Uschock, US Navy, NSWC, USA

Reduced Sensitivity BKNO₃ Igniter Formulations

Dr. Eugene Rozumov, US Army, ARDEC, USA

Evaluation of a Reactive Material for Controlled Ignition of Explosives

Nausheen Al-Shehab, US Army, ARDEC, USA

Insensitive Munitions Training in the South African Defence Force

Johan Niemand, Armscor, South Africa

Cartridge Case Venting Technologies, 25mm M910 Ctg Test Vehicle

Christina Morales, US Army, ARDEC, USA

Insensitive Torpedo Warhead Qualification Program

Philippe Chabin, Eurenco, France

Insensitive Munitions Packaging Technology

Daniel Pudlak, US Army, ARDEC, USA

Twin Screw Extrusion Manufacturing Process for the Thermobaric Explosive PAX-3

Brian Alexander, BAE Systems, USA

Explosives Coating via Advanced Cluster Energetics (ACE) Fluid Energy Mill (FEM) Technology

Brian Alexander, BAE Systems, USA

Novel Manufacturing Process for the Thermobaric Explosive PBXIH-18 at Holston Army Ammunition Plant

Brian Alexander, BAE Systems, USA

Alternate Binder and Insensitivity in Composition C-4

Alberto Carrillo, BAE Systems, USA

The Army Burn-to-Violent Reaction (ABVR) Test: A Sub-Scale IM Sub-Scale Screening Test

Dr. Jamie Neidert, US Army, AMRDEC, USA

Reduced Sensitivity RDX Evaluations and Comparisons for Less-sensitive Minimum Signature (MS) Propellants

Dr. Jamie Neidert, US Army, AMRDEC, USA

Evaluation of Thermal Protection Systems for Insensitive Munitions

Christopher Mealy, Hughes Associates, USA

Slow Cook-Off Testing Methodologies and Explosive Response Characterization

Timothy Madsen, US Army, ARDEC, USA

Development of a Scaling Hierarchy for Cook-off Hazards

Alice Atwood, US Navy, NAWC, USA

Poster Session (cont'd)

1,2,4-Butanetriol (BT): Synthesis and Manufacture at Holston Army Ammunition Plant

Dr. William Tilford, BAE Systems, USA

Optimization, IM Properties, and Performance Assessment of Insensitive Aluminized Melt-pour Explosives

Virgil Fung, BAE Systems, USA

Verified Aluminum Reaction in Anaerobic Detonation of Combined Effects Explosives

Dr. Paul Anderson, US Army, ARDEC, USA

A Numerical Model of the Ignition Gas Flow around a Propellant Grain

Frederick Paquet, GD-OTS, Canada

Toxicological Testing of ADN, GUDN and FOX 7

Helen Stenmark, Eureenco

Fragment Impact Testing at TNO Following STANAG 4496

Gert Scholtes, TNO, Netherlands

Application of Six Sigma Principles in Explosives Manufacturing, Composition C-4 Drying Capability Study

Maria Bukowska, US Army, ARDEC, USA

UK-Energetics

Dr. Eamon Colclough, QinetiQ, UK

MSIAC Audit Procedure of IM Testing Organizations' Capabilities

Pierre Archambault, MSIAC, Belgium

Mitigation Techniques for Reduced Rocket Motor Vulnerability against External Thermal Stimuli

Benjamin Smit, Rheinmetall-Denel, South Africa

FOX-12 (GuDN): An IM Ingredient Candidate – Where Are We Today?

Dr. Henric OEstmark, Swedish Defense Research Agency, Sweden

Continuation of Research into Insensitive Munitions Gun Propellants in the UK

Dr. Anne Maria Wilton, BAE Systems, UK

The Influence of Mechanical Properties on Explosive Reaction Violence

Dr. Robert Hatch, ATK, USA

Demonstration and Validation of Lead-free Ballistic Modifier for Rocket Propellants

Dr. Sarah Headrick, ATK, USA

MSIAC's Safety Assessment Software (SASO)

Dr. Michael Sharp, MSIAC, Belgium

Developments in IM Testing Techniques; Munition from Cradle to Grave

Wim de Klerk, TNO, Netherlands

1,2,4-Butanetriol Production at ATK – A Sustainable Solution

Dr. Stephen Velarde, ATK, USA

IM A5 Replacement

Sanjeev Singh, US Army, ARDEC, USA

Development and Manufacture of Reduced Sensitivity RDX at Holston Army Ammunition Plant for IM Explosive and Propellant Applications

Mike Ervin, BAE Systems, USA

Influence of New/Novel Energetic Materials on the Performance and Properties of Felted Fiber Combustible Ordnance

Radana Dmitrovic, Esterline, USA

Transfer Distances from Sympathetic Detonation Tests with TNT and PBX Charges Applied to the Warhead Production

Richard Wild, Diehl, Germany

Illumination IM – A Strategy for IM Compliance of Mortar Illumination Cartridges

Elizier Martinez, US Army, ARDEC, USA

Container Modifications for 120MM HE Mortar Ammunition to Improve Fast Cook-off Reactions

Luis Rodriguez, US Navy, NSWC, USA

Eglin AFB Insensitive Munitions Fast and Slow Cook-off Test Capabilities

Chris Long, USAF, Eglin, USA

Synthesis and Scale-Up of 4,4'-diamino-3,3'-azoxyfurazan (DAAF)

Kim Hanson, US Navy, NSWC, USA

Characterization of Decomposition Behavior of Highly-loaded Polymeric Materials

Peter Cahill, Aerojet, USA

DoD/Army Instit. for Multi Scale Reactive Modeling: FY09 and FY10 Mesoscale and Continuum Programs

William Davis, US Army, ARDEC, USA

Nitration of Substituted Imidazoles Using a Variety of Nitrating Agents under Various Conditions

Dr. Reddy Damavarapu, US Army, ARDEC, USA

Development of a Very Insensitive High Explosive Charge EIDS for 155mm

Dr. Almuth Kessler, Rheinmetall, Germany

Nanoinfusion Processing for Future Propellants

Mike Fisher, Cornerstone Research Group, USA

IMPRESSUM:

Compiled by IMEMG in accordance with the inputs from the IMEMTS 2010 Paper Selection Committee.

IMEMG / MURAT European Manufacturers Group
Le Diamant A
F-92909 PARIS LA DEFENSE CEDEX FRANCE
www.imemg.org

