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SUMMARY

Session S1a

Energetic materials and molecules

Chair-persons :

Sara PLISKIN, Naval Surface Warfare Center, Crane

Pierre THEBAULT, E. Lacroix

First Insight into Strobe Reactions. %

Authors : Corbel, J.M.L.; Lingen, J.N.J; Zevenbergen, J.F.; Meijerink, A.; Gijzeman, O.L.J.

Companies : Utrecht University; TNO Security and Safety."

Effect of Formulation Changes on the Minimum Burning Pressure of Ammonium Nitrate Emulsions. %

Authors : Badeen C.*, Goldthorp S*, Turcotte R.*, Feng H*, and Chan S.K.**.

Companies, Country : *Canadian Explosives Research Laboratory, Ottawa, Ontario, Canada; **Orica Canada Inc., Brownsburg-Chatham, Quebec, Canada"

Metal Fluorocarbon Pyrolants XII. Combustion Behaviour of Binary Pyrolants based on MgH₂, MgB₂, Mg₃N₂, Mg₂Si and Polytetrafluoroethylene. &

Authors : Ernst-Christian Koch (a), Volker Weiserb, Evelin Roth (b).

Companies, Country : a) NATO-MSIAC, b) Fraunhofer-ICT"

50yrs of Blackpowder & Safety Fuse manufacture in South Africa. ')

Authors : Gordon Morgan.

Companies, Country : AEL Mining Services , SouthAfrica.

Combustion of Various Metal Particles in Combination with RDX and the Influence of Additional Air. ' * '

Authors : V. Weiser*, E. Roth, A. Raab, St. Kelzenberg, S. Knapp, W. Eckl.

Companies, Country : Fraunhofer Institut für Chemische Technologie ICT; 76327 Pfinztal, Germany."

Development and characterisation of a based TNT IM explosive composition XF11585. Applications for the 60 mm to 120 mm caliber range.) (

Authors : C. COULOUARN*, P. LAMY-BRACQ, S. BULOT.

Companies, Country : NEXTER Munitions, France "

Session S1b

Energetic materials and molecules

Chair-persons:

Rutger WEBB, TNO Defence, Security and Safety

Bernie DOUDA Naval Surface Warfare Center, Crane

Explosive strategy at NEXTER Munitions. * '

Authors : R. AUMASSON, P. LAMY-BRACQ, C.COULOUARN.

Companies, Country : NEXTER Munitions, France

B2514A: a Novel Enhanced Blast Explosive. +&

Authors : C. Collet, M. Dervaux, M. Werschine.
Companies, Country : SNPE Matériaux Energetiques, FRANCE"

Detonation-like Processes in Mechanoactivated Thermite Mixtures. ,)

Authors : A.Yu. Dolgoborodov, M.N. Makhov, A.N. Streletskii, I.V. Kolbanev, S.L. Guseinov.
Companies, Country : ICP RAS

ZPP with reduced sensitivity - (

Authors: J.M. DARRIGRAND,
Company, Country : NEXTER Munitions, France

Boron and boron carbide pyrotechnics for green light emission. - ,

Authors : Jay C. Poret, Ph.D., Jesse J. Sabatini, Ph.D., Phillip Chu, and Russell Broad.
Companies, Country : US Army ARDEC, Picatinny Arsenal NJ USA

The High Energy Density Materials: a new challenge. %\$-

Authors : G. Jacob.
Companies, Country : SME France"

Session S1c

Energetic materials and molecules

Chair-persons :
Luc PREAUD, ASTRIUM ST
Helmut MUTHIG, TDW

Agglomeration of combustion products of aluminum containing propellants. %%

Authors : Lebedeva Elena, Astafyeva Svetlana, Strelnikov Vladimir, Valtsifer Viktor, Tutubalina Irina, Valtsifer Igor.
Companies, Country : Institute of Technical Chemistry of Ural Branch of the Russian Academy of Sciences.

Combustion characteristics of ADN (Ammonium Dinitramide) based solid propellants. FFÍ

Authors : Koji Fujisato, Hiroto Habu, Hidefumi Shibamoto, Xiuchao Yu, Atsumi Miyake, Keiichi Hori.
Companies, Country : JAXA, Japan

Molecular Hydrogen storage and its restitution by a solid state combustion mechanism. %&&

Authors : JP. GOUDON, C. VELLA, P. YVART, J. RENOARD.
Companies, Country : SNPE Matériaux Energétiques, France"

Session S51a

Methodologies for design, reliability and lifetime demonstration, IMness justifications

Chair-persons :
Sebastien VEYRY, Snecma Propulsion Solide
Michel VIVES, MBDA

Six Sigma® methodology applied to blasting. % (

Authors : S.Mencacci, D.Jacquet, O.Vandenabelle, R.Chavez, JF.Couvrat, Y.Sarrey.
Companies, Country : EPC Group and Davey Bickford, France."

Numerical Study of Lead Azide Detonation Initiation and Propagation % &

Authors : A. V. Trotsyuk(1), B. A. Khasainov(1), H.-N. Presles(1), G. Damamme(2), M. Missionier(2). Companies, Country : 1) Institut PPRIME (UPR 3346 CNRS), 86360, Poitiers, France - 2) CEA, DAM Ile de France, France"

Reaction Kinetic Modeling of the Decomposition Kinetics of Comp A5. % \$

Authors : E.R. Bixon, W.H. Davis, H.A. Grau, D.J. Murphy, D.G Pfau.
Companies, Country : US ARMY ARDEC, Picatinny Arsenal NJ 07806-5000"

To assess the compliance of one-shot products with a required reliability. % -

Authors : GTPS Reliability Commission.
Companies, Country : Multi-companies, France"

Modelling emission spectra of diatomic molecules for characterization and simulation of pyrotechnic mixtures. %&

Authors : S. Knapp, W. Eckl, S. Kelzenberg, V. Weiser.
Companies, Country : Fraunhofer Institut für Chemische Technologie ICT, 76327 Pfinztal, Germany"

Session S51b

Methodologies for design, reliability and lifetime demonstration, "IMness justifications"

Chair-persons :

Ian MC INTOSH, CHEMRING EUK
Alain MOBUCHON, PyroAlliance

Numerical simulation of blast wave generated by detonation of cylindrical charges. % '

Authors : S. Kerampran(1), M. Arrigoni(1), L. Korzeczek(1), M. Lefebvre(2).
Companies, Country : (1) ENSIETA (France), (2) Ecole Royale Militaire (Belgium)"

Modelling of pyrotechnic mechanisms. % (

Authors : Bertrand Haguenauer.
Companies, Country : Pyroalliance, France"

Analysis of the Effect of Friction on High Explosives. &\$-

Authors : Hong Tao and Lin Wenzhou.
Companies, Country : Institute of Applied Physics and Computational Mathematics."

QSPR Prediction of Impact Sensitivity of Nitro Energetic Compounds. &%

Authors : V. Prana, G. Fayet, P. Rotureau and C. Adamo.
Companies, Country : Chimie ParisTech, France; INERIS, France"

Modelling of intumescent coatings growth: simulation from the lab-scale to the large one. &&)

Authors : Fabien Chassagne, Mathieu Gillet, Félix Daguisé, Jean-Jacques Serra.
Companies, Country : DGA (Direction Générale de l'Armement), France"

Simulations of threats defined in STANAG 4439 on a 155 mm artillery shell. & &

Authors : Frédéric NOZERES, Rémi BOULANGER, Cécile GROGNET, Régis AUMASSON.
Companies, Country : NEXTER Munitions , France"

Session S51c

Methodologies for design, reliability and lifetime demonstration, "IMness justifications"

Chair-persons:
Jay PORET, ARDEC
Shimada TORU, JAXA

Integration of safety requirements into a missile booster design. &* *

Authors : Arnaud Urien, Jean-Michel Larrieu.
Companies, Country : Snecma Propulsion Solide, France"

How to Get Insensitive Munitions Benefits According to Hazard Classification. &+%

Authors : Yves GUENGANT.
Companies, Country : IMEMG"

Environmental impact evaluation and eco-design ammunition. &)

Authors : M. REGIS, C. POINTART, C. JOY.
Companies, Country : NEXTER Munitions - Etienne Lacroix - DG/TT"

Session S2a

New explosive devices and systems

Chair-persons:
Jochen NEUTZ, Fraunhofer Institut für Chemische Technologie
Dave NOVOTNEY, ENSIGN-BICKFORD Aerospace & Defense Company

The Design Method of the Chain from Igniting Element to DDT Booster & (

Authors : ZHU Shunguan, ZHOU Jie, MA Peng, ZHANG Lin, ZHANG Lei.
Companies : Nanjing University of Science and Technology."

The Application of Printing Technologies for Pyrotechnic Delays. ' \$%

Authors : William Beer.
Companies, Country : Wales

Impulseur d'éjection de charge sous avions d'armes, améliorations et nouvelles fonctionnalités. ' %%

Authors : Ph. JOFFARD (DGA), S. PHELEP (DAVEY BICKFORD), D. RICHIER (Dassault Aviation).
Companies, Country : DGA, Davey Bickford, Dassault Aviation (France)"

A Novel Technology for Multi-Point Initiation of High Explosives. ' %

Authors : Werner Arnold, Markus Graswald.
Companies, Country : MBDA-TDW, Germany"

The design of low induced shock pyro-actuators. ' &

Authors : Alex Chartier, Charlotte Lenoir.
Companies, Country : Pyroalliance, France"

Overview of the pyrotechnic activities in CNES Toulouse Space Centre. ' ' &

Authors : Denis DILHAN.
Companies, Country : CNES Toulouse Space Center - France"

Session S2b

New explosive devices and systems

Chair-persons :

G rard TANGUY, NEXTER Munitions
Fr d rique MEYER LASSALLE, CNES-DLA

Technological breakthrough in Safety and Arming Unit. ' (')

Authors : P. MAGNAN, R. BOULANGER.
Companies, Country : NEXTER Munitions, France"

Control of the functioning time of an all secondary explosive Laser ignited Detonator. ' (,)

Authors : H.Moulard, E.Fousson, A.Ritter, J.Mory.
Companies, Country : ISL, Saint-Louis, FRANCE"

Solid state firing unit for EFI detonator. ') +

Authors : P. MAGNAN.
Companies, Country : NEXTER Munitions, FRANCE"

The Application of Laser Ignition of Explosives to Device Design. ' * ')

Authors : R C Drake.
Companies, Country : AWE, UK

Cool Gas Generators from research to applications in space and on earth. ' + *)

Authors : Berry Sanders.
Companies, Country : TNO"

Research of Semiconductor Bridge Plasma with Optical Technique. ' , ()

Authors : Zhang Lin, Feng Hongyan, Zhu Shunguan.
Companies, Country : Nanjing university of SCI&TECH., China"

Session S6a

High Dynamics Pressure workshop

Chair-persons :

Pierre-Yves CHANTERET, ISL
Thierry MASSARD, CEA / DAM

Numerical and experimental study of an open-ended steel pipe subjected to a spherical explosive loading. ' , -)

Authors : Crouzet B., Cousin L., Froidefond T.
Companies, Country : CEA, DAM, DIF, F-91297 Arpajon, France"

Explosive decomposition of PETN initiated by High-Current Electron Beam. ' - -)

Authors : G. Damamme, V. Lisitsyn, D. Malys, V. Oleshko.
Companies, Country : Russian Federation - Tomsk Polytechnic University, Russia - CEA, France"

Calculating Hugoniot for molecular crystals from First Principles. (\$)

Authors : Ryan R. Wixom, Ann E. Mattsson, Thomas R. Mattsson.
Companies, Country : Sandia National Laboratories, USA"

Characterization of Blast Wave Mitigation by Aqueous Foams through Measurements and Numerical Multiphase Modelling. (%

Authors : Emilie Del Prete, Ashwin CHINNAYYA, Abdellah HADJADJ, Lucas DOMERGUE, Jean-François HAAS.
Companies, Country : CEA/DAM/DIF, CORIA CNRS UMR 6614 – France"

Shock Deformation Mechanism for Initiation of Explosive Decomposition in Heavy Metal Azides. (%

Authors : Yu.N. Zhuravlev, G. Damamme, V.M. Lisitsyn, D. Malys.
Companies, Country : Russian Federation - Tomsk Polytechnic University, Russia - CEA, France"

Session S6b

High Dynamics Pressure workshop

Chair-persons :

Michel LEFEBVRE, RMA

Ryan WIXOM, SANDIA National laboratory

Laser Initiation of Volumetrically Compacted PETN Powders in UV Spectral Region. (&

Authors : G. Damamme*, D. Malys*, V. Tsipilev, E. Morozova.
Companies, Country : Russian Federation - Tomsk Polytechnic University, Russia - *CEA, France"

Experimental characterization of the shock to detonation transition and the sustained detonation in a TATB-based explosive using the embedded multiple electromagnetic particle velocity gauge method. (' &

Authors : A. Sollier, P. Manczur, B. Crouzet, L. Soulard, J-H. Quesada, J-M. Chevalier, P. Bouinot, R. Duconget, V. Bouyer, A. Hedin, R. Letremy.
Companies, Country : CEA, France"

Développement d'une instabilité plastique par compression isentropique : nouvelle méthode expérimentale appliquée à la caractérisation de l'or. (' '

Authors : B. Savale, C. Bolis, D. Counilh, G. Peillex, A. Sollier, M. Toury.
Companies, Country : CEA/DAM/DIF"

Explosion Initiation of Uniform Pressed PETN Powders by Laser Radiation of Their Transparent Spectral Region. | H

Authors : G. Damamme, D. Malys, V. Tsipilev, A. Skripin.
Companies, Country : France, Russian Federation"

Molecular dynamics simulations of the shock compression of diamond with the LCBOPII potential. (((

Authors : N. Pineau [1], R. Perriot [2], J.H. Los [3], J.-B. Maillet [1], L. Soulard [1] and I.I. Oleynik [2].
Companies, Country : [1] CEA, DAM, DIF, F-91297 Arpajon, France [2] Department of Physics, University of South Florida, Tampa, Florida 33620, USA [3] CINaM, CNRS and Aix Marseille University, Campus de Luminy, case 913, 13288 Marseille cedex 09, France"

Session S11a

Nano energetic materials

Chair-persons :

Ernst-Christian KOCH, Munitions Safety Information Analysis Center

Christian MASSON, ONERA

Numerical investigation on the diffusion process of self-sustaining combustions in Al/Ni multilayer foils. ((

Authors : L. Wang, X.H. Jiang, B. He.
Companies : Institute of Chemical Materials, CAEP"

Aluminum, Zirconium and Titanium combustion in air with nitrides stabilization in condensed combustion products.)(

Authors : A.A. Gromov, A.B. Vorozhtsov, Yu.I. Strokova, A.A. Ditts, U. Teipel.
Companies : Tomsk Polytechnic University, Russia, Fraunhofer ICT, Germany"

Control of the reactivity of phosphorus based nanothermites. (* ,

Authors : Marc COMET, Benny SIEGERT, Fabien SCHNELL, Fabrice CISZEK, Vincent PICHOT, Jens KOKOT, Yves SUMA, Yannick BOEHRER, Denis SPITZER.
Companies, Country : ISL - Laboratoire NS3E, UMR ISL/CNRS 3208."

Continuous formation of nano energetic materials. (+'

Authors : Benedikt RISSE, Denis SPITZER, Dominique HASSLER, Fabien SCHNELL.
Companies, Country : ISL, France, Allemagne"

Formulation and characterizations of nanoenergetic compositions. (, &

Authors : A. Wuillaume, A. Beaucamp, M. Rocquin.
Companies, Country : CEA Le Ripault, France"

Formation of spatial structure of oxide containing carbon particles in ECS oligomer binder. (- \$

Authors : I. Valtsifer, S. Astafeva, V. Valtsifer, V. Strelnikov, E. Lebedeva, I. Tutubalina.
Companies, Country : Russian Academy of Science Ural Division Institute of Technical Chemistry, Russia"

Session S11b

Nano energetic materials

Chair-persons :

Steven F.SON, Purdue University
James CALLAWAY, DSTL

Reduced-sensitivity nanothermites based on filled carbon nanofibers. (- (

Authors : Benny Siegert, Marc Comet, Olivier Muller, Fabien Schnell, Denis Spitzer.
Companies, Country : NS3E, UMR 3208 ISL/CNRS, Institut franco-allemand de Recherches de Saint-Louis, France"

Development of propellants generating nanosized aerosols of given composition.) \$'

Authors : Astafyeva Svetlana, Lebedeva Elena, Strelnikov Vladimir, Valtsifer Viktor, Tutubalina Irina, Valtsifer Igor.
Companies, Country : Institute of Technical Chemistry of Ural Branch of the Russian Academy of Sciences, Russia.

Aluminized HNIW-based nanocomposite – synthesis and explosive properties.) %%

Authors : A.N. Zhigach, I.O. Leipunsky, B.V. Kudrov, E.S. Zotova, N.G. Beriozkina M.F. Gogulya, M.A. Brazhnikov, V.A. Teselkin, A.Y. Dolgoborodov, M.N. Makhov.
Companies, Country : Institute for Energy Problems of Chemical Physics RAS, Semenov's institute of Chemical Physics RAS, Moscow, Russia"

Titanium Dioxide Influence On Combustion Of HMX.) &%

Authors : N. Muravyev, Yu. Frolov, Alla Pivkina, K. Monogarov, D. Meerov, Olga Ordzhonikidze.
Companies, Country : Semenov Institute of Chemical Physics, Russian Academy of Science, Russia "

Effect of Carbon Nano Fibrils on Burn Rate and IR Intensity of Mg/Teflon/Viton Infrared flare Compositions) &

Authors : R. S. Palaiah, M. N. Manda*, N. R. Shah, P. L.Waghmare, S.M.Danali and K.C. Raha.
Companies, Country : HEMRL (DRDO), India"

Pyrophoric Porous Self Supporting Substrates with Tunable Thermal Response.)' (
Authors : Zac Doorenbos¹, Lori Groven², Chris Haines³, Deepak Kapoor³ and Jan Puszynski⁴.
Companies, Country : 1Innovative Materials and Processes, LLC Rapid City, SD 57701 USA"

Session S7a

Regulations, environment and recycling

Chair-persons :
Dietrich ECKHARDT, BAM
Jean-Luc FAUQUEMBERGUE, DGA/IPE

A new impulse for the French MURAT policy.)' -
Authors : Serge Bordachar, Deputy Head Munitions Safety Office.
Companies, Country : DGA/IPE"

REACH and NEXTER Munitions.)(&
Authors : NICOLE FORICHON CHAUMET.
Companies, Country : NEXTER Munitions, FRANCE"

Possible coming changes in French explosives safety regulations.))%
Authors : Regis Guegan/ Deputy French Competent Authority.
Companies, Country : DGA/INSP/IPE/ France

Session S7b

Regulations, environment and recycling

Chairpersons :
Frantz CAILLAU, NEXTER Munitions
Pierre THEBAULT, E. Lacroix

Blast Effect Assessment for Complex Structure Buildings: Tests on Models and Numerical Simulations.))(
Authors : C. COLLET, J. MORICEAU, Y.GUENGANT.
Companies, Country : SNPE Matériaux Energétiques"

PRIMEVERE : Safe and clean test facilities for pyrotechnical and hazardous devices.)* -
Author : Thibault DERODE - Gestion des risques majeurs.
Company, Country: ASTRIUM Space Transportation, France"

Inertization of Nitrocellulose Based propellants.) +)
Authors : M.L. Douet, C.I. Van de Velde and M.H. Lefebvre.
Companies, Country : Laboratory for Energetic Materials - RMA, Belgium."

Debris Risk Assessment for Industrial Explosive Installation.), '
Authors : Y.Guengant, A. Philippe, H. Miermont.
Companies, Country : SME, SFEPA"

Session S52a

Methodologies for design, reliability and lifetime demonstration, "IMness justifications"

Chairpersons :

Rick ARMITAGE, CHEMRING PLC Group
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Optimization of Modelling of Materials Aging Investigated by Ex-Situ Acquisition of Experimental Data. Determination of the Propellant Stability by HPLC.) -)

Authors : Bertrand Roduit(1), Patrick Folly(2), Alexandre Sarbach(2), Pierre Guillaume(3), Laurence Jeunieu(4).
Companies, Country : 1 AKTS AG, Switzerland, 2 armasuisse, Switzerland, 3 PB Clermont, Belgium, 4 Royal Military Academy, Belgium"

Simultaneous Streak and Framing imaging for performance evaluation of Composition C-4. * \$*

Authors : H. Muthurajan, Teo Zihao, Robbin Poh Chen Tien, Ang How Ghee.
Companies, Country : Energetics Research Institute, Nanyang Technological University, Singapore"

Influence of the Explosive Charge Characteristics. * %

Authors : Florian PECHOUX, Bart SIMOENS and Michel LEFEBVRE.
Companies, Country : RMA, Belgium"

Session S52b

Methodologies for design, reliability and lifetime demonstration, "IMness justifications"

Chair-persons :

Jan PUSZYNSKI
Mike BOWDEN, AWE

Determination of Laser-driven Flyer Velocity and Integrity Using Photonic Doppler Velocimetry. * %

Authors : Sarah Knowles, Mike Bowden.
Companies, Country : AWE Plc, UK"

Characterization of standard and reduced sensitivity RDX samples by differential iso-conversional analysis of microcalorimetric measurements between 120°C and 150°C. * ' ')

Authors : Dr. Manfred Bohn.
Companies, Country : Fraunhofer ICT, Germany."

Interest of the evolutions on Xray generator for detonics : ANGELIX example. * ' (

Authors : Etchessahar Bertrand, Nicolas Rémi, Bozier Olivier.
Companies, Country : CEA, DAM, DIF, France"

Non-intrusive Diagnostics with X-ray CT Device of Microstructure in Composite Propellants Containing High Amount of Aluminum. * ')

Authors : Shimada, T., Kitagawa, K., Kosuge, H., Hasegawa, H., Fukunaga, M., Miyachi, H.
Companies, Country : Japan Aerospace Exploration Agency

POSTER SESSIONS

Poster n° 1

System to characterize pyrotechnic pollutants

Authors: C. Archambaud, M. Roger, H. F. Fédou

Companies : DGA Technical Directorate, Bourges, France

Poster n°2

Modeling of the synthesis of 1,1-diamino-2,2-dinitroethylene (DADNE)

Authors : Waldemar A. Trzci, Z. Chy

Companies, Country : Military University of Technology, Warsaw, Poland

Poster n°3

Bio-degradable Thermoplastics for Use in Pyrotechnics

Authors : Gary Chen, Matt Hall, Jeff Wiggins

Companies, Country : United States

Poster n°4

Gun Propellant Ignition

Authors : P. DELLA PIETA - C. VELLA

Companies, Country : SNPE - FRANCE

Poster n°6

Development of a new pressable XP® explosive composition for medium caliber

Authors : C. COULOUARN, P. LAMY-BRACQ, Y. DUFOUR

Companies, Country : NEXTER Munitions

Poster n°7

Modelling of melt-cast processes

Authors : LAMY-BRACQ Peggy

Companies, Country : NEXTER Munitions

Poster n°8

Blast and Heat Flux Characterisation of MTV Compositions

Authors : N Davies, M Williams and L Dunne

Companies, Country : Cranfield University, UK

Poster n°9

Microwave assisted synthesis of 1,2,4-triazol-5-one

Authors : Mateusz Szala, Stanislaw Cudzilo, Rafal Lewczuk

Companies, Country : Military University of Technology, Poland

Poster n°10

Study of Blast Pressure and Fragments Generated by Accidental Explosions. Comparison of Hydrodynamic Calculations with Experimental Results

Authors : Hervé Suzanne (corresponding author herve.suzanne@cea.fr) , Roland Letremy, Vincent Mineau, Michel Doucet, Viviane Bouyer, Sophie De Vito

Companies, Country : CEA DAM LE RIPAUT, FRANCE.

Poster n°11

Oxidation kinetics of metal particles^{*} +%

Authors : O. Schulz*, N. Eisenreich, J. Neutz, H. Fietzek, B. Eickershoff

Companies, Country : Fraunhofer Institut für Chemische Technologie (ICT), D-76327 Pfinztal, Germany

Poster n°12

Effect of the oxygen balance on ignition and detonation properties of liquid explosive mixtures^{B#5}

Authors : M. Genetier, A. Osmond, G. Baudin, R. Serradeill

Companies, Country : CEA Gramat, France

Poster n°13

Evaluation of X-ray computed tomography for assessing the effect of gaps on initiation train reliability^{*} +&

Authors : G. Flegg

Companies, Country : AWE, UK

Poster n°15

Detonation synthesis of nanosized oxide ceramics^{*} +-

Authors : P. Gibot, F. Quesnay, J. Mory, D. Hassler, D. Spitzer

Companies, Country : ISL/CNRS

Poster n°16

A study of separation mechanism in the ball type bolt using dynamic separation test^{*}, %

Authors : YeungJo Lee, SongHae Koo, HongBin Jang

Companies, Country : Agency for Defense Development, Korea

Poster n°17

PRIMEVERE : A secured infrastructure design example^{*}, &

Author : Thibault DERODE - Gestion des risques majeurs

Company, Country: ASTRIUM Space Transportation, France

Poster n°18

Numerical Simulations of a Pyrotechnic Shock Test^{*}, '

Authors : NDAMBI, REYMEN, LECOMPTE, VANTOMME.

Companies : Royal Military Academy, BE

Poster n°20

Experimental and numerical dynamic ductile damage analysis of inflators structure.^{*} - *

Authors: H. Fresnel(2), P. Longère(1), V. Grolleau(1), G. Rio(1) and P. Hardy(2).

Company, Country: 1 Laboratoire de Génie Mécanique et Matériaux - Université de Bretagne Sud - Rue de Saint Maudé, BP 92116, 56321 LORIENT Cedex, France. 2 AUTOLIV LIVBAG - Route du Beuzit, 29390 PONT-DE-BUIS, France.

Poster n°21 :

Chemical evaluations of Airbag components. ^{*} - +

Authors: M.Lévêque, R.Andry.

Company, Country: AUTOLIV LIVBAG - Route du Beuzit, 29390 PONT-DE-BUIS, France.

La Direction des applications militaires, pôle Défense du CEA 711

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