



HEMs 2011 PROGRAMME

October 3-4
La Rochelle, France



Day 1 - 3rd October 2011		Chairman	08:00	09:00	REGISTRATION		
			09:00	09:10	Welcome address		
Economic Aspects	<u>Keynote Speech</u>		09:10	09:30	The role of economic clusters in the regional development (by the example of clusters established with the participation of a defense enterprise, FR&PC ALTAI)	I. TEPLOVA	JSC FR&PC "ALTAI"
New Molecules Synthesis and Properties 1	<u>Session 1</u>	<u>Chairman (TBC)</u>	09:30	09:50	Preparation of 1,3-DIAZIDO-2-NITRO-2-AZAPROPANE (DANP) from UREA	S.G. ILYASOV	IPCET SB RAS
			09:50	10:10	Energetic Salts of Symmetrical Dimethylhydrazine	C. MIRO SABATE	Université Claude Bernard LYON
			10:10	10:30	Global Scenario of High Energy Materials	J.P. AGRAWAL	Defense R & D India
			10:30	11:00	Break		
Energetic Materials Properties	<u>Session 2</u>	<u>Chairman (TBC)</u>	11:00	11:20	Emission spectroscopy on wire explosions in different atmospheres	S. KNAPP	Fraunhofer ICT
			11:20	11:40	Space-flight demonstration of a liquid ADN-based monopropellant on the PRISMA Satellites	P. THORMAHLEN	ECAPS
			11:40	12:00	Development of melt-cast XF® explosives for Insensitive Munitions	P. LAMY-BRACQ	Nexter Munitions
			12:00	12:20	Advanced biological treatment for solid propulsion	C. MARRAUD	SAFRAN SME
			12:20	12:40	Thermal Output of Granular Propellant Combustion	F. PAQUET	Concordia University
			12:40	13:00	The Future of Green Propulsion: Trinitramide and Dinitramide Based Propellants	T. BRINCK	KTH Royal Institute of Technology
			13:00	14:30	Lunch		
Nanomaterials 1	<u>Session 3</u>	<u>Chairman (TBC)</u>	14:30	14:50	Design of composite metal nanoparticles for the use in HEMs and characterization	A. VOROZHSTOV	Institute for Problems in Chemical and Energetic Technologies, SB RAS
			14:50	15:10	Synthesis of aluminum nanoparticles for propulsion – Influence of organic capping agents on the morphology and reactivity	A.A. YASMINE	ONERA
			15:10	15:30	Nitrides Formation under Aluminum Nanoparticles Burning in N ₂ -Containing Environment	A. GROMOV	Tomsk Polytechnic University
			15:30	16:00	Break		
Nanomaterials 2	<u>Session 4</u>	<u>Chairman (TBC)</u>	16:00	16:20	Physicomathematical Modelling of Explosive Centrifugal Atomizer	O. KUDRYASHOVA	Russian Academy of Sciences
			16:20	16:40	Formulation and characterizations of nanoenergetic compositions	A. WUILLAUME	CEA Le Ripault
			16:40	17:00	High-strength titanic alloys with ultrafine-grained structure and tribotechnical hardening of working surfaces of actuators for aerospace engineering	A. POTEKAEV	Siberian Physical-Technical Institute
			17:00	17:20	Deflagration to Detonation Transition in Silicon/Oxidizer Mechanoactivated Nanocomposites	A. DOLGOBORODOV	N. Semenov Institute of Chemical Physics RAS
			19:30	23:30	Symposium dinner		
						Hosted by	&



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Day 2 - 4th October 2011

08:30 09:10

REGISTRATION

New Molecules Synthesis and Properties 2	<u>Session 5</u>	<u>Chairman (TBC)</u>	09:10	09:30	Comparative Study of Combustion Mechanism of Guanidine Salts: Triaminoguanidine and 3,6-Diguandino-1,2,4,5-tetrazine Nitrates	V. SINDITSKII	Mendelev University of Chemical Technology
			09:30	09:50	Synthesis of di- and trinitropryrazoles	S. COMTE	SAFRAN SME
			09:50	10:10	Nanostructured catalysts in production of functional high-energy materials	A. KNYAZEV	Tomsk state University
			10:10	10:30	Hydrazines and energetic polynitrogen compounds	G. JACOB	SAFRAN SME
			10:30	11:00	Break		
Diagnostics	<u>Session 6</u>	<u>Chairman (TBC)</u>	11:00	11:20	Modern Ways of Developing Automation Systems for Mixing Setups	A. LITVINOV	JSC FR&PC "ALTAI"
			11:20	11:40	Fluorescent materials dedicated to the detection of explosives vapors: nitroaromatic and peroxyde based explosives	P. MONTMEAT	CEA Le Ripault
			11:40	12:00	Automated System of NDT Quality Testing of Articles	A. LITVINOV	JSC FR&PC "ALTAI"
			12:00	13:30	Lunch		
Modelling	<u>Session 7</u>	<u>Chairman (TBC)</u>	13:30	13:50	Mathematical modeling of three-dimensional two-phase flows	A. GLAZUNOV	Tomsk state University
			13:50	14:10	Thermochemical aspects of synthesis of metal oxides by means of plasma-chemical method	A. ZUKOV	Tomsk state University
			14:10	14:30	Optimization of Modelling of Propellants Aging Investigated According to NATO AOP-48 Ed.2 Test Procedure	B. RODUIT	AKTS AG
			14:30	14:50	The Theoretical Investigation of Convective Combustion and Transition to Detonation in Porous Fuels	A. GLAZUNOV	Tomsk state University
			14:50	15:10	Basics of Nanothermodynamics and Creations of High Materials on Base Fine Nano-sized Components	V. BABUK	Baltic State Technical University
			15:10	15:40	Break		
Gas Generator	<u>Session 8</u>	<u>Chairman (TBC)</u>	15:40	16:00	Plasma Generators on Solid and "Hybride" High Energy Materials	V. SHANDAKOV	JSC FR&PC "ALTAI"
			16:00	16:20	Production of Hydrogen from a Self-Pyrolysis Reaction of a Solid Binary Mixture	J.P. GOUDON	SAFRAN SME
			16:20	16:40	Azide-Free Compositions for Various Purpose Low-Temperature Gas Generators	V. SHANDAKOV	JSC FR&PC "ALTAI"
			16:40	17:00	Cold Pyrotechnic Gas Generators for Underwater Rescue Systems and Heavy Duty Lifting Devices	K. MENKE	Fraunhofer Institut für Chemische Technologie ICT