SHS2015 PROGRAM (HALL A)

Sunday, October 11 / 2015

09.00 – 17:00 Registration

Monday, October 12 / 2015

09:00 – 09:20	**OPENING CEREMONY**
	Session Chairman: Onuralp Yucel
09:20 – 10:20	**Plenary Report I** **Alexander S. Mukasyan** **RECENT ADVANCES IN COMBUSTION SYNTHESIS OF MATERIALS (OVERVIEW)** Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, Indiana, USA [1], National University of Science and Technology, MISiS, Moscow, Russia [2]
10:20 – 11:00	***Coffee Break***
11:00 – 12:00	**Plenary Report II** **Giacomo Cao** **ENVIRONMENTAL AND SPACE APPLICATIONS OF SHS** Department of Mechanical, Chemical and Materials Engineering University of Cagliari, 09123 Cagliari, Italy
12:00 – 13:30	***Lunch***
Session I	Session Chairman: Onuralp Yucel
13:30 – 14:00 **Abstract:**1074	**Keynote I** **SYNTHESIS GAS GENERATION ON SHS AND SCS CATALYSTS FOR FUEL ECONOMY AND PURIFYING EXHAUST GASES OF INTERNAL COMBUSTION AND GAS TURBINE ENGINES** *Galina Xanthopoulou* [1], Yuriy Knysh [2], Alexander Amosov [3], Dmitriy Dmitriev [2] NCSR "Demokritos" INN, Athens-Greece [1]; SSAU Department of Theory of Aircraft Engines, Samara-Russia[2]; Samara State Technical University[3]
14:00 – 14:20 **Abstract:**1085	**SOLUTION COMBUSTION SYNTHESIS OF STABLE SUPPORTED NI AND Ni-Cu CATALYSTS FOR HYDROGEN PRODUCTION FROM ETHANOL** Allson Cross [1], Khachatur Manukyan [2], Sergei Rouvimov [3], Alexander Mukasyan [1], *Eduardo Wolf* [1] University of Notre Dame, Department of Chemical and Biomolecular Engineering, Notre Dame -United States [1], University of Notre Dame, Department of Physics, Notre Dame -United States [2] ; University of Notre Dame, Department of Electrical Engineering, Notre Dame -United States [3]
14:20 – 14:40 **Abstract:**1134	**ACTIVITY OF SCS CATALYSTS ON HOLLOW SPHERES IN DRY REFORMING OF METHANE** *Malik Matsuda* [1], Galina Xanthopoulou [2], H Wada [1], Osamu Odavara [1], George Vekinis [2] Tokyo Institute of Technology, Department of Innovative and Engineered Materials, Yokohama-Japan [1] ; NCSR "Demokritos", Institute of Nanoscience and Nanotechnology, Athens-Greece [2]
14:40 – 15:00	***Coffee Break***
Session II	Session Chairman: Galina Xanthopoulou
15:00 – 15:30 **Abstract**: 1135	**Keynote II** **SHS IN THIN FILMS** *Alexander Rogachev* [1], Sergei Vadchenko [1], Florence Baras [2], Olivier Politano [2] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka-Russia[1]; Universite de Bourgogne, Laboratoire Interdisciplinaire Carnot de Bourgogne, Dijon-France [2]
15:30 – 15:50 **Abstract:** 1066	**REACTIVE NANOSTRUCTURED FOILS FABRICATED BY HIGH-ENERGY BALL MILLING AND COLD ROLLING** *Andrey Nepapushev* [1], Alexander Rogachev [2], Alexander Mukasyan [3] National University of Science and Technology «MISIS», Moscow-Russia [1] , Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[2]; University of Notre Dame Department of Chemical & Biomolecular Eng., Notre Dame-United States [3]
15:50 – 16:10 **Abstract**: 1087	**NANOSTRUCTURED CERAMICS BY SPARK PLASMA SINTERING OF SHS SILICON CARBIDE NANOPOWDER** *Dmitry Moskovskikh* [1], Alexander Rogachev [2], Alexander Mukasyan [3] National University of Science and Technology «MISIS», Center of Functional Nano-Ceramics, Moscow-Russia [1]; Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia [2]; University of Notre Dame, Department of Chemical & Biomolecular Eng., Notre Dame-United States [3]
16:10 – 16:30 **Abstract**: 1096	**STRUCTURED COMPOSITE MATERIALS BY SHS METHOD: EXPERIMENTAL STUDY** *Olga Kamynina* [1], Sergey Vadchenko [1], Alex Shchukin [1], Alexander Sytschev [2], Ivan Kovalev [3] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka-Russia[1]
16:30 – 18:00	***Poster Session I***
18:30 – 19:30	**WELCOME RECEPTION**

Tuesday, October 13 / 2015

09:00 – 10:00	**Plenary Report III** **Florian Kongoli[1 2 3], Edward Z. O'Brien[3], Ian McBow[3]** **SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS (SHS) AND SUSTAINABLE DEVELOPMENT** FLOGEN Technologies Inc. Montreal, QC, Canada, H3P 2T1 [1], FLOGEN STARS OUTREACH, Montreal, QC, Canada, H3P 2T1 [2], FLOGEN Technologies Inc., Wilmington, De, 19808, USA [3] Session Chairman: Vladimir Sanin
10:00 – 10:20	***Coffee Break***
Session III	Session Chairman: Vladimir Sanin
10:20 – 10:50 **Abstract**: 1138	**Keynote III** **SHS-ENABLED REACTIVE BONDING FOR APPLICATION IN MICROSYSTEMS TECHNOLOGIES** *Matthias P. Kremer* [1], Andreas Tortschanoff [2], Andreas E. Guber [3] CTR Carinthian Tech Research Heterogeneous Integraten Technologies, Villach-Austria [1] ; CTR Carinthian Tech Research Microsystems Technologies, Villach-Austria [2] ; Karlsruhe Institute of Technology, Institute of Microstructure Technology (IMT), Karlsruhe-Germany [3]
10:50 – 11:10 **Abstract**: 1116	**CONSOLIDATION OF Cu-BASED NANOSTRUCTURED PSEUDO ALLOYS FOR ELECTRICAL CONTACT MATERIALS** *Natalia Shkodich* [1], Alexander Rogachev [1], Alexander Mukasyan [2], Dmitry Moskovskikh [3], Sergey Vadchenko [1], Kirill Kuskov [3], Alexander Shchukin [1] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]; University of Notre Dame, Department of Chemical and Biomolecular Engineering, Notre Dame-United States [2] ; National University of Science and Technology "MISiS", Moscow-Russia[3]
11:10 – 11:30 **Abstract:** 1055	**MA SHS OF SUBMICRON POWDERS AND NANOSTRUCTURED GRANULES BASED ON NiAl AND TiAl** *Victoria Kurbatkina* , Evgeny Patsera, Evgeny Levashov National University of Science and Technology «MISIS», Moscow-Russia [1]
11.30 – 11.50 **Abstract:** 1168	**FORMATION OF NANOPARTICLES BY SHS** *Erdem Çamurlu* Akdeniz University Mechanical Eng. Dept.-Türkiye
12:00 – 13:30	***Lunch***
Session IV	Session Chairman: Florian Kongoli
13:30 – 14:00 **Abstract**: 1127	**Keynote IV** **THE CATALYSTS PREPARED BY SOLUTION COMBUSTION ON GLASS-FIBERS FOR SYNTHESIS OF CARBON NANOTUBES** *Zulkhair Mansurov* [1], Gaukhar Smagulova [1], Anvar Zakhidov [2] Institute of Combustion Problems Chemistry and Chemical Technology, Almaty-Kazakhstan [1]; University of Texas at Dallas, Chemistry Richardson-United States [2]
14:00 – 14:20 **Abstract**: 1152	**CRYSTALLOGRAPHIC DEPENDENCE OF CATALYSTS ACTIVITY PREPARED BY SCS AND SHS METHODS IN DIFFERENT PROCESSES** *Galina Xanthopoulou* [1] NCSR "Demokritos", Institute of Nanoscience and Nanotechnology Athens-Greece [1]
14:20 – 14:40 **Abstract**: 1029	**ONE-STEP PREPARATION OF HIGHLY STABLE Ni-BASED SUPPORTED CATALYST BY SOLUTION COMBUSTION SYNTHESIS** *S.I. Roslyakov* [1], Eduardo Wolf [2], Alisson Cross [2], A.S. Rogachev [3], A.S. Mukasyan [2] National University of Science and Technology «MISIS» Scientific Research Center "Advanced NanoCeramics" Moscow-Russia [1] University of Notre Dame Department Chemical and Biomolecular Engineering Notre Dame-United States [2] Institute of Structural Macrokinetics and Materials Science Russian Academy of Sciences Chernogolovka-Russia [3]
14:40 – 15:00	***Coffee Break***
Session V	Session Chairman: Alexander Mukasyan
15:00 – 15:30 **Abstract**: 1109	**Keynote V** **3-D RECONSTRUCTION OF HIGH ENERGY DENSITY MATERIALS: EFFECT OF NANOSTRUCTURE ON IGNITION CHARACTERISTICS** *Christopher Shuck* [1], Alexander Mukasyan [1] University of Notre Dame, Department of Chemical and Biomolecular Engineering, Notre Dame-United States [1]
15:30 – 15:50 **Abstract**: 1122	**CARBON ISOTOPE 13C LABELLING IN SiC NANOFIBER SYNTHESIS USING SHS APPROACH** *Andrzej Huczko* [1], Michał Soszyński [1], Balram Pokhrel [2] Warsaw University, Department of Chemistry, Warsaw-Poland [1] ; Kathmandu University, School of Science, Dhulikhel-Nepal [2]

15:50 – 16:10 **Abstract**: 1143	**SUPPRESSION EFFECT OF REACTION TEMPERATURE ON COMBUSTION SYNTHESIS OF TITANIUM CARBOSULFIDE** *Ryuichi Tomoshige* [1], Kazushi Kai [1], Yuuki Furu-ichi [1], Kiyohito Ishida [2] Sojo University Nanoscience, Kumamoto-Japan [1] ; Tohoku University Materials Science, Sendai-Japan [2]
16:10 – 16:30 **Abstract**: 1057	**QUANTITATIVE ENVIRONMENTAL ASSESSMENT OF SOLUTION COMBUSTION SYNTHESIS OF OXIDE NANOMATERIALS** *Roberto Rosa* [1], Martina Pini [2], Paolo Neri [2], Anna Maria Ferrari [2] University of Modena and Reggio Emilia Department of Engineering "Enzo Ferrari" Modena-Italy [1] University of Modena and Reggio Emilia Department of Sciences and Methods for Engineering Reggio Emilia-Italy [2]
16:30 – 16:50 **Abstract**: 1111	**SOLUTION COMBUSTION SYNTHESIS OF PEROVSKITE OXIDE NANOPARTICLES: CONVENTIONAL VS. MICROWAVE IGNITION** *Roberto Rosa* [1], Chiara Ponzoni [1], Paolo Veronesi [1], Isabella Natali Sora [2], Veronica Carrara [2], Valeria Felice [2], Cristina Leonelli [1] University of Modena and Reggio Emilia Department of Engineering Enzo Ferrari Modena-Italy [1] University of Bergamo Department of Engineering and Applied Science Bergamo-Italy
16:50 – 18:30	***Poster Session II***

Wednesday, October 14 / 2015

09:00 – 10:00	**Plenary Report IV** **Igor Smurov, M. Doubenskaia** **SELECTIVE LASER MELTING AND DIRECT METAL DEPOSITION: FROM PROCESS FUNDAMENTALSTOWARDS ADVANCED PRODUCTS** LTDS Laboratory Université de Lyon, ENISE Saint-Etienne, France Session Chairman: Dominique Vrel
10:00 – 10:20	***Coffee Break***
Session VI	Session Chairman: Dominique Vrel
10:20 – 10:50 **Abstract**: 1006	**Keynote VI** **CONTRIBUTION OF SHS TO ADDITIVE TECHNOLOGY OF SELECTIVE LASER AND ELECTRON BEAM SINTERING** *Evgeny Levashov* [1], Yury Pogozhev [1], Vladimir Sanin [2], Vladimir Yukhvid [2], Dmitry Andreev [2], Aleksander Zaitsev [1], Zhanna Sentyurina[1], Alla Logacheva[3], Anatoly Timofeev[3] National University of Science and Technology "MISiS", Moscow-Russia [1]; Institute of Structural Macrokinetics and Materials Science, Russian Academy of Science, Chernogolovka- Russia [2]; "Kompozit" Research, Development & Production Corp., Korolev-Russia[3]
10.50 – 11:10 **Abstract:** 1073	**WORLD FIRST 3D PRINTED CATALYSTS BLOCKS ALSO ASSISTED BY SHS AND SCS** *Galina Xanthopoulou* [1], Yurii Knysh [2], Dmitriy Dmitriev [2], Vitaliy Smelov [3] NCSR "Demokritos" INN, Athens-Greece [1]; SSAU Department of Theory of Aircraft Engines, Samara-Russia [2]; SSAU Department of Aircraft Engines production Samara-Russia [3]
11:10 – 11:30 **Abstract**: 1076	**CENTRIFUGAL METALLOTHERMIC SHS OF CAST CHARGED MATERIALS FOR FOLLOWING METALLURGICAL TREATMENT** Vladimir Sanin[1], Denis Ikornikov[1], Dmitrii Andreev[1], Vladimir Yukhvid[1], Evgeny Levashov[2], Yury Pogozhev[2], Zhanna Sentyurina[2] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]; National University of Science and Technology "MISiS", Moscow- Russia.
11:30 – 11:50 **Abstract**: 1050	**HIGH PERMITTIVITY OF BARIUM TITANATE PREPARED BY SHS/QP** *Jinyong Zhang* [1], Chongjun Xu [1], Fan Zhang [1], Zhengyi Fu [1] State Key Laboratory of Advanced Technology for Materials Synthesis and Processing Wuhan University of Technology Wuhan-China [1]
12:00 – 13:30	***Lunch***
Session VII	Session Chairman: Alexander Rogachev
13:30 – 14:00 **Abstract**: 1038	**Keynote VII** **CENTRIFUGAL SHS OF CAST 'HIGH-ENTROPY' METAL ALLOYS** *Vladimir Sanin* [1], Denis Ikornikov [1], Dmitriy Andreev [1], Nina Sachkova [1], Yuriy Kovalev [1], Vecheslav Borshch [1], Vladimir Yukhvid [1] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]
14:00 – 14:20 **Abstract**: 1115	**MICROSTRUCTURE AND PROPERTIES OF Al_2O_3 /ZrO_2 EUTECTIC COMPOSITE BY COMBUSTION SYNTHESIS MELT-CASTING UNDER LOW PRESSURE** *Yongting Zheng* [1], Pan Yang [1], Shui Wang [1], Xiaodong He [1] Harbin Institute of Technology Center for Composite Materials and Structure, Harbin-China [1]
14:20 – 14:40 **Abstract**: 1148	**PRODUCTION OF NICKEL BASED SUPERALLOYS BY SHS PRODUCTION METHOD** *Murat Alkan* [1], Dmitrii E. Andreev [2], M. Seref Sönmez [3], Vladimir N. Sanin [2], Bora Derin [3], Vladimir I. Yukhvid [2], Onuralp Yücel [3] MTA Mineral Research & Exploration Gen. Direct. Dept. of Mining Analysis and Tech. Ankara-Turkey [1] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[2]; Istanbul Technical University Metallurgical and Materials Eng. Dept., Istanbul-Turkey [3]
14:40 – 15:00	***Coffee Break***
Session VIII	Session Chairman: Zulkhair Mansurov
15:00 – 15:30 **Abstract**: 1162	**Keynote VIII** **ONGOING DEVELOPMENT ACTIVITIES OF BORON LOADED PROPELLANT AT ROKETSAN** *Serhat Ozturk* [1] ROKETSAN Propellant Technology Department , Ankara-Turkey
15:30 – 15:50 **Abstract**: 1140	**SEMI-COMMERCIAL PRODUCTION OF TiB_2 BY SHS: SYNTHESIS, CHARACTERIZATION AND SINTERING BEHAVIOR** *Mehmet Suat Somer* [1], Meltem Ipekci [2], Selcuk Acar [3], Mustafa Elmadagli [4], Jürgen Hennicke [5] Koç University College of Science Department of Chemistry, Istanbul-Turkey [1] ; Koç University Graduate School of Sciences & Engineering, Department of Materials Science and Engineering Istanbul-Turkey [2]; Pavezyum Kimya San. Dis. Tic., Istanbul-Turkey [3]; Roketsan Roket Sanayii ve Ticaret A.S. Malzeme ve

	Balistik Koruma Teknolojileri Mudurlugu, Ankara-Turkey [4]; FCT Systeme GmbH, Frankenblick-Germany [5]
15:50 – 16:10 **Abstract**: 1002	**COMBUSTION SYNTHESIS OF BORON NITRIDE VIA MAGNESIUM REDUCTION USING ADDITIVES** *Shyan-Lung Chung* [1], Yu-Hsiang Hsu [1], Kuan-Ying Tseng [1] National Cheng Kung University, Department of Chemical Engineering, Tainan-Taiwan [1]
16:10 – 16:30 **Abstract**: 1078	**CENTRIFUGAL SHS HARDFACING WITH Mo_2NiB_2/Ni COMPOSITE** *Dmitrii Andreev* [1], Denis Ikornikov [1], Vladimir Sanin [1], Vladimir Yukhvid [1], Bora Derin [2], Onuralp Yucel [2] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]; Istanbul Technical University Metallurgical and Materials Engineering, Istanbul-Turkey [2]
16:30 – 16:50 **Abstract:** 1008	**FABRICATION OF MgB_2 BY COMBUSTION SYNTHESIS UNDER HIGH GAS PRESSURE** *Sanat Tolendiuly* [1], Sergey Fomenko [2], Roza Abdulkarimova [1], Zulkhair Mansurov [3], Karen Martirosyan [4] al-Farabi KazNU Chemical and Chemical Technology, Almaty-Kazakhstan [1]; Institute of Combustion Problems, SHS-laboratory, Almaty-Kazakhstan [2]; Institute of Combustion Problems, Almaty-Kazakhstan [3] ; University of Texas at Brownsville Physics and Astronomy, Brownsville-United States [4]
16:50 – 17:10 **Abstract**: 1167	**INVESTIGATION OF Mo-Ni-B TERNARY ALLOYS FOR PRODUCTION OF BORIDE-BASED CERMETS BY SHS METHOD** Bora Derin [1], *S. R. Moghaddam* [1], Onuralp Yucel [1], S. Sonmez [1], M. Bugdayci [1], M. Sezen [2], F. Bakan [2], Vladimir Sanin [3], Dmitrii Andreev [3] Istanbul Technical University, Metallurgical and Materials Eng. Dept., Istanbul-Turkey [1] ; Sabanci University, Nanotechnology Research and Application Center, Istanbul-Turkey [2]; Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[3]
17:10 – 18:30	***Poster Session III***
20:00 – 23:00	**GALA DINNER**

Thursday, October 15 / 2015

09:00 – 10:00	**Plenary Report V** ***Alexander Rogachev*, M.I.Alymov, I.P.Borovinskaya** **CARRYING ON MERZHANOV TRADITIONS: NEW ACHIEVEMENTS ON SHS IN ISMAN** Institute of Structural Macrokinetics and Materials Science Russian Academy of Sciences (ISMAN), 142432 acad. Osipyana str., 8, Chernogolovka Moscow region, Russia **Session Chairman:** Paola Bassani
10:00 – 10:20	***Coffee Break***
Session IX Session Chairman: Paola Bassani	
10:20 – 11:00 **Abstract:**1142	**Keynote IX** **ENERGETIC COMBUSTION AND SHS: COMPARATIVE ANALYSIS OF THE ACHIEVEMENTS AND UNSOLVED PROBLEMS** Giorgi Tavadze [1], *Alexander Shteinberg* [2] Ferdinand Tavadze Institute of Metallurgy and Materials Science, Tbilisi-Georgia [1]; N.N. Semenov Institute of Chemical Physics, Russian Academy of Sciences, Moscow-Russia [2]
11.00 – 11:20 **Abstract:**1048	**INFLUENCE OF PHASE TRANSFORMATIONS ON THE SPIN COMBUSTION** *Vadim Prokofyev* [1], Victor Smolyakov [2] Tomsk State University, Faculty of Physics and Engineering, Tomsk-Russia [1]; Tomsk Scientific Center, Department of Structural Macrokinetics, Tomsk-Russia [2]
11:20 – 11:40 **Abstract:**1139	**IN-SITU TRANSMISSION ELECTRON MICROSCOPY AND ELECTRON DIFFRACTION INVESTIGATIONS OF SOLID-STATE REACTIONS IN $Fe_3Si(111)/Si(111)$ FILMS** *Sergey Zharkov* [1], Roman Altunin [1], Evgeny Moiseenko [1], Sergey Varnakov [1], Ivan Yakovlev [1], Ivan Tarasov [1], Sergey Ovchinnikov [1] Kirensky Institute of Physics, Russian Academy of Sciences, Krasnoyarsk-Russia [1]
11:40 – 12.00 **Abstract:**1158	**PRODUCTION OF ZrB_2-B_4C-ZrC COMPOSITE POWDER MIXTURES VIA SHS** *Kağan Benzeşik* [1], Mehmet Buğdaycı [1], Onuralp Yücel [1], Filiz Cinar Sahin [1], Ahmet Turan [2] Istanbul Technical University, Metallurgical and Materials Engineering, Istanbul-Turkey [1] ; Yalova Uni. Chemical and Process Engineering, Yalova-Turkey [2]
12:00 – 12.10	**CLOSING CEREMONY**
12:10 – 13:30	***Lunch***
13:30 – 17:30	**ANTALYA CITY TOUR**

SHS2015 PROGRAM (HALL B)

Tuesday, October 13 / 2015

Session X	Session Chairman: Filiz Şahin
10:20 – 10:50 **Abstract No** : 1062	**Keynote X** **SHS PRESSING ALUMINUM-CERAMIC SKELETON COMPOSITES ON THE BASE OF Ti_2AIC MAX PHASE** *Aleksandr Amosov*[1,2], Aleksandr Fedotov[1,2], Evgeniy Latukhin[1,2], Vladislav Novikov [1,2] [1]Samara State Technical University, 244 Molodogvardeyskaya Str., Samara, 443100, Russia [2]Samara State Aerospace University, 34 Moskovskoe Shosse, Samara, 443086, Russia
10:50 – 11:10 **Abstract No** : 1007	**SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS OF MULTICOMPONENT CERAMICS BASED ON Zr-Si-Al-B. PECULIARITIES OF COMBUSTION AND STRUCTURE FORMATION** *Yury Pogozhev* [1], Artem Potanin[1], Evgeny Levashov[1], Ivan Yatsuk[1], Dmitry Kovalev [2], Nikolay Kochetov [2] National University of Science and Technology "MISIS", Moscow-Russia [1] , Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka-Russia [2]
11:10 – 11:30 **Abstract No** : 1149	**PRODUCTION OF ZIRCONIUM DIBORIDE POWDER BY SHS** *Murat Alkan* [1], Burcu Akkas [2], M. Seref Sönmez [2], Bora Derin [2], Onuralp Yücel [2] MTA Mineral Research & Exploration Gen. Direct. Dept. of Mining Analysis and Tech. Ankara-Turkey [1] Istanbul Technical University Metallurgical and Materials Eng. Dept. Istanbul-Turkey [2]
11:30 – 11:50 **Abstract No** : 1130	**SYNTHESIS, KINETICS AND MECHANICAL PROPERTIES OF Mn+1AXn BY SHS AND SHS/PHIP** *Guobing Ying* [1], Xiaodong He [2], Shanyi Du [2] Hohai University Department of Materials Science and Engineering Nanjing-China [1] Harbin Institute of Technology Center for Composite Materials and Structures Harbin-China [2]
11:50 – 12:10 **Abstract:** 1165	**PROCESSING OF MAX PHASES WITH USE OF SHS TECHNIQUES - ACHIEVEMENTS, PROBLEMS AND PROSPECTS** *Jerzy Lis* [1] AGH UST Faculty of Materials Science and Ceramics Ceramics and Refractories Kraków-Poland[1]
12:10 – 13:30	***Lunch***
Session XI	Session Chairman: Şeref Sönmez
13:30 – 14:00 **Abstract No** : 1067	**Keynote XI** **AUTOWAVE CHEMICAL CONVERSION IN MULTICOMPONENT MIXTURES THERMITE TYPE WITH ACTIVE METALS** *Vladimir Yukhvid* [1], Dmitrii Andreev [1], Vladimir Sanin [1] I Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka-Russia [1]
14:00 – 14:20 **Abstract No** : 1155	**A COMPARATIVE STUDY ABOUT PRODUCTION OF CHROMIUM CONTAINING IRON BASED ALLOYS FOR 3 DIFFERENT CONDITIONS BY METALLOTHERMIC PROCESS** *Mehmet Bugdayci* [1], Ahmet Turan [2], Murat Alkan [3], Onuralp Yucel [1] İ.T.Ü. Metallurgical and Materials Eng. Istanbul-Turkey [1] Yalova University Chemical and Process Engineer Yalova-Turkey [2] MTA Metallurgy Ankara-Turkey [3]
14:20 – 14:40 **Abstract No** :1070	**CENTRIFUGAL SHS METALLURGY OF CAST TIAL BASED ALLOYS AND APPROACHES TO IMPROVE STRUCTURE AND CHEMICAL COMPOSITION** *Dmitrii Andreev* [1], Vladimir Yukhvid [1], Denis Ikornikov [1], Vladimir Sanin [1] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka-Russia [1]
14:40 – 15:00	***Coffee Break***
Session XII	Session Chairman: Evgeny Levashov
15:00 – 15:20 **Abstract No** :1166	**THERMOCHEMICAL CALCULATIONS OF SHS-PRODUCED NiTi SMA'S BY FACTSAGE** Bora Derin [1], *B. Keskin* [1], M. Sezen [2], F. Bakan [2], P. Bassani [3] Istanbul Technical University Metallurgical and Materials Eng. Dept. Istanbul-Turkey [1] Sabanci University Nanotechnology Research and Application Center Istanbul-Turkey [2] CNR-IENI National Research Council-Institute for Energetics and Interphases Milano-Italy [3]
15:20 – 15:40 **Abstract No** :1120	**THERMODYNAMIC ANALYSIS FOR COMBUSTION SYNTHESIS OF AL_2O_3/ZrO_2 EUTECTIC MELT UNDER HIGH PRESSURE AND CRYSTALLIZATION MORPHOLOGY IN RAPID SOLIDIFICATION** Yongting Zheng [1], Wei Ye [1], *Xiaodong He* [1], Yangyang Guo [1], Xiaonang Zhang [1] Harbin Institute of Technology Center for Composite Materials and Structure Harbin-China [1]

15:40 – 16:00 **Abstract No** :1061	**FABRICATION OF COMPOSITE POWDERS BASED ON TITANIUM CARBIDE AND IRON BY SHS WITH REDUCING STAGE** *Aleksandr Amosov*[1], Anatoliy Samboruk [1,2], Igor Yatsenko[2], Vladimir Yatsenko[2] [1]Samara State Aerospace University, 34 Moskovskoe Shosse, Samara, 443086, Russia [2]Samara State Technical University, 244 Molodogvardeyskaya Str., Samara, 443100, Russia
16:00 – 16:20 **Abstract No** :1153	**ETI ELEKTROMETALURJI LOW CARBON FERROCHROME PRODUCING PROCESS** Yahya Öcal [1], *A.Cüneyt Dönmezyürek* [2], Baran Yönter [3], Alpaslan Durusan [4] Eti Elektrometallurgy Director Antalya-Turkey [1] Elektrometallurgy Process Antalya-Turkey [2] Elektrometallurgy Purshasing Antalya-Turkey [3] Elektrometallurgy Sales Antalya-Turkey [4]
16:20 – 16:40 **Abstract No:**1039	**PRODUCTION OF ULTRA-HIGH TEMPERATURE CARBIDE (Ta,Zr)C BY SHS OF MECHANICALLY ACTIVATED MIXTURES** *Evgeny Patsera* [1], Viktoriya Kurbatkina [1], Evgeny Levashov [1], Dmitriy Kovalev [2], Nikolay Kochetov [2] National University of Science and Technology "MISIS", Moscow-Russia [1] , Institute of Structural Macrokinetics and Materials Science, Russian Academy of Science, Chernogolovka-Russia [2]
16:50 – 18:30	***Poster Session II***

Wednesday, October 14 / 2015

Session XIII	Session Chairman: Vladimir Yukhvid
10:20 – 10:40 **Abstract**:1004	**SHOCK WAVE ASSISTED SHS PROCESS AND CONSOLIDATION OF Ta-Al –B_4C PRECURSORS** *Akaki Peikrishvili* [1], Bagrat Godibadze [2], Vakhtang Peikrishvili [3], Elguja Chagelishvili [2], Metab Tsiklauri [2] Ferdinand Tavadze Institute of metallurgy and materials science & G.Tsulukidze Mining Institute Blasting Technologies Department. High-Tech Materials Laboratory. Tbilisi-Georgia [1] G.Tsulukidze Mining Institute Blasting Technologies Department. High-Tech Materials Laboratory. Tbilisi-Georgia [2] Ferdinand Tavadze Institute of metallurgy and materials science Laboratory of Self-propagating High Temperature Synthesis Problems Tbilisi-Georgia [3]
10:40 – 11:00 **Abstract**:1123	**EFFECT OF ALUMINIUM ADDITION ON SHS SYNTHESIS OF Ti_2AlN POWDERS WITH USE OF INTERMETALLIC PRERSCURSORS Ti_3Al** *Leszek Chlubny* [1], Jerzy Lis [1], Mirosław M. Bućko [1], Czesław Kapusta [2], Paulina Chachlowska [1], Katarzyna Chabior [1], Kaja Zieleńska [1] AGH University of Science and Technology Faculty of Materials Science and Ceramics Kraków-Poland [1] AGH University of Science and Technology Faculty of Physics and Applied Computer Science Kraków-Poland [2]
11:00 – 11:20 **Abstract:**1012	**CONVERSION OF MILL SCALE WASTE INTO VALUABLE IRON-CHROMIUM ALLOY USING ALUMINO-THERMIC AND ALUMINO-SILICO-THERMIC PROCESSES** *Mamdouh Eissa* [1], Azza Ahmed [1], Mohamed Kamal El-Fawakhry [1], Rabab Abo-Shohba [2], Seham Shahein [2] Central Metallurgical R & D Institute (CMRDI) Steel and Ferroalloys Department Cairo-Egypt [1] Al-Azhar University Faculty of Science Cairo-Egypt [2]
11:20 – 11:40 **Abstract**:1164	**COMPOSITES IN THE ALUMINUM OXYNITRIDE – MeN (Me=Ti, Ta, Nb, Cr) SYSTEM PREPARED FROM SHS-DERIVED POWDERS** Alan Wilmański [1], Jerzy Lis [1], *Mirosław M. Bućko* [1] AGH-University of Science and Technology Faculty of Materials Science and Ceramics Krakow-Poland [1]
12:00 – 13:30	***Lunch***
Session XIV	Session Chairman: Bora Derin
13:30 – 13:50 **Abstract:**1144	**SYNTHESIS OF TUNGSTEN NANOPOWDERS: COMPARISON OF MILLING, SHS, MASHS AND MECHANO-CHEMICAL PROCESSES** Sarah Dine [1], Sara Aïd [1], Karim Ouaras [1], Véronique Malard [2], Nathalie Herlin-Boime [3], Michaël Odorico [2], Aurélie Habert [3], Adèle Gerbil-Margueron [3], Christian Grisolia [4], Jacques Chêne [5], Gregory Pieters [5], Bernard Rousseau [5], *Dominique Vrel* [1] CNRS LSPM Villetaneuse-France [1] CEA IBEB Bagnols-sur-Cèze-France [2] CEA IRAMIS-NIMBE Gif-sur-Yvette-France [3] CEA IRFM Saint-Paul-lez-Durance-France [4] CEA Ibitec-S Gif-sur-Yvette-France [5]
13:50 – 14:10 **Abstract:**1035	**COMBUSTION SYNTHESIS OF NANO-SIZED AMORPHOUS BORON POWDERS** *Weimin Wang* [1] Wuhan university of Technology State Key Lab Wuhan-China [1]
14:10 – 14:30 **Abstract:**1141	**PARAMETRIC STUDIES ON TITANIUM-STAINLESS STEEL EXPLOSIVE CLADDING SUBJECTED TO UNI-LOADING RATIO** *Saravanan S* [1] Annamalai University Mechanical Engineering Annamalai Nagar-India [1]
14:30 – 14:50 **Abstract:**1010	**MULTI TEMPERATURE MODELING OF ELECTRICAL FIELD GENERATION DURING COMBUSTION SYNTHESIS OF ZnS** Andrey Markov [1], Igor Filimonov [2], A Poletaev [2], *Karen Martirosyan* [3] Institute for Problems in Mechanics Mechanics Moscow-Russia [1] ISMAN Combustion synthesis Chernogolovka-Russia [2] University of Texas at Brownsville Physics Brownsville-United States [3]
14:50 – 15:00	***Coffee Break***

Session XV	Session Chairman: Alexander Steinberg
15:00 – 15:20 **Abstract:**1027	**SOLUTION COMBUSTION SYNTHESIS OF La- AND Cr- DOPED SrTiO3 PHOTOCATALYSTS FOR SUSTAINABLE AIR POLLUTANT REMOVAL** Ivan Davila [1], Vladimir Yefremov [2], *Karen Martirosyan* [1] University of Texas at Brownsville Physics Brownsville-United States [1] Institute of Combustion Problems Advanced Materials Almaty-Kazakhstan [2]
15:20 – 15:40 **Abstract:**1005	**SELF-PROPAGATING HIGH TEMPERATURE SYNTHESIS OF RARE-EARTH OXIDE NANOPOWDERS FOR TRANSPARENT CERAMICS** Stanislav Balabanov [1], Evgeny Gavrishchuk [1], Oksana Klyusik [2], *Dmitry Permin* [1] G.G. Devyatykh Institute of Chemistry of High-Purity Substances RAS laboratory of high-pure optical materials Nizhny Novgorod-Russia [1] Nizhny Novgorod State University chemical department Nizhny Novgorod-Russia [2]
15:40 – 16:00 **Abstract:**1013	**RARE EARTH IRON NANOSTRUCTURED GARNETS: COMBUSTION SYNTHESIS AND MAGNETOELECTRIC PROPERTIES** *Almaz Saukhimov* [1], Gabit Almanov [1], Chamath Dannangoda [2], Mkhitar Hobosyan [2], Serik Kumekov [1], Karen Martirosyan [2] KazNTU Physics Almaty-Kazakhstan [1] UTB Physics Brownsville-United States [2]
16:00 – 16:20 **Abstract:**1022	**COMBUSTION SYNTHESIS OF NANO STRUCTURED CATALYTIC ACTIVATORS FOR REDUCTION OF SOOT ACTIVATION ENERGY** *Zhimart Ualiev* [1], Karen Martirosyan [2] Institute of Combustion Problems Physics Almaty-Kazakhstan [1] University of Texas at Brownsville Physics Brownsville-United States [2]
16:20 – 16:40 **Abstract:**1021	**Abstract No** : 1021 **PLASTIC DEFORMATION AS MECHANISM FOR RAPID SINTERING OF NANO CERAMICS WITHOUT GRAIN GROWTH BASED SHS REACTION** *Zhengyi Fu* [1], Weimin Wang [1], Hao Wang [1], Yucheng Wang [1], Jinyong Zhang [1] Wuhan University of Technology State Key Lab of Advanced Technology for Materials Synthesis and Processing Wuhan-China [1]
20:00 – 23:00	**GALA DINNER**

SHS 2015 POSTER SESSIONS

Monday, October 12 / 2015 – 16:30-18:00
Tuesday, October 13 / 2015 – 16:50-18:30
Wednesday, October 14 / 2015 – 17:10-18:30

1.Theory of SHS: combustion, structure formation, methods of modeling.

Abstract No : 1003
GASLESS COMBUSTION OF THERMALLY COUPLED LAYERS
Vadim Prokofyev [1], Victor Smolyakov [1]
Tomsk Scientific Center, Siberian Branch Russian Academy of Sciences Tomsk-Russia [1]

Abstract No : 1033
SPECIALTY PRESS-MOLD PROVIDING CONTROL OF COOLING AND CRYSTALLIZATION OF SHS PRODUCT: DESIGN AND CAPABILITIES
David Sakhvadze [1], Alexander Shteinberg [2], Gigo Jandieri [1]
LEPL Ferdinand Tavadze Institute of Metallurgy and Materials Science 8 laboratory Tbilisi-Georgia [1] ALOFT, Chem. Eng. and Mater. Sci. Consulting Inc. ALOFT, Chem. Eng. and Mater. Sci. Consulting Inc Berkeley-United States [2]

Abstract No : 1060
STRUCTURE OF SHS PRODUCTS: NUMERICAL SIMULATION
Serguey Konovalikhin [1], Vasiliy Ponomarev [1], Aleksandr Sytschev [1], Serguey Vadchenko [2], Dmitriy Kovalev [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1088
MATHEMATICAL SIMULATION OF SOLID-PHASE PLUNGER EXTRUSION WITH DOUBLE COMPRESSION OF COMPOSITE MATERIALS
Lyubov Stelmakh [1], Alexander Stolin [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1097
SYNTHESIS AND REACTION MECHANISM OF Ti_2SnC FROM Ti/Sn/C POWDER BY SELF-PROPAGATION HIGH-TEMPERATURE TECHNIQUE
Chuncheng Zhu [1], Hexin Sun [1], Hong Lin [1]
Harbin Normal University Department of chemistry Harbin-China [1]

Abstract No : 1117
COMBUSTION OF Ti – B MIXTURES UNDER QUASI-STATIC PRESSURE
Valery Barinov [1], Vladimir Shcherbakov [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1156
A STUDY ABOUT THERMOCHEMICAL SIMULATION OF ZrB_2-B_4C-ZrC SYSTEM
Mesut Yilmazoglu [1], Mehmet Bugdayci [2], Candeniz Uysal [2], Kagan Benzesik [2], Onuralp Yucel [2]
Yalova University Chemical and Process Engineering Yalova-Turkey [1] İ.T.Ü. Metallurgy and Materials Engineer Istanbul-Turkey [2]

2.Mechanisms and kinetics of SHS processes.

Abstract No : 1014
IN SITU SYNCHROTRON INVESTIGATION IN THE Ti-C-Ni AND Ti-C-NiO-Al SYSTEMS
Hafida Boutefnouchet [1], Caroline Curfs [2]
University of Annaba Metallurgy Annaba-Algeria [1] ESRF ID31 Grenoble-France[2]

Abstract No : 1025
COMBUSTION OF MARTIAN REGOLITH SIMULANTS WITH MAGNESIUM
Armando Delgado [1], Sergio Cordova [1], *Evgeny Shafirovich* [1]
The University of Texas at El Paso Mechanical Engineering El Paso-United States [1]

Abstract No : 1034
UNSTABLE GAS-FREE COMBUSTION OF DISC-SHAPED SYSTEMS
Yuriy Maksimov [1], Oleg Lapshin [1]
Tomsk Scientific Center, Siberian Branch Russian Academy of Sciences Tomsk-Russia [1]

Abstract No : 1051
STUDY OF FERROSILICOALUMINIUM NITRIDING
Konstantin Bolgaru [1], Ludmila Chukhlomina [1], Yuriy Maksimov [1]
Tomsk Scientific Center, Siberian Branch Russian Academy of Sciences Tomsk-Russia [1]

Abstract No : 1092
THERMOCHEMICAL CONVERSION OF IRON COMPOUNDS IN A WAVE OF FLAMELESS COMBUSTION
Yuriy Mikhailov [1], Victor Aleshin [1], Alexandra Kolesnikova [1], Larisa Zhemchugova [1], *Dmitry Kovalev* [2]
IPCP Laboratory of energy polymer systems Chernogolovka-Russia [1] Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[2]

Abstract No : 1093
GAS EVOLUTION DURING SHS OF TiC
Alexandr Shchukin [1], *Sergey Vadchenko* [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1098
ACOUSTIC EMISSION METHOD APPLICATION FOR SHS PROCESSES STUDIES
Anatoly Kuznetsov [1], Sergey Kunavin [1], Pavel Berezhko [1], Vyacheslav Yaroshenko [1], *Maxim Tsarev* [1], Sergey Mityashin [1], Evgeny Zhilkin [1]
Russian Federal Nuclear Centre - All-Russia Research Institute of Experimental Physics Rosatom Sarov, Nizhny Novgorod region-Russia [1]

Abstract No : 1121
INVESTIGATION OF PHASE FORMATION DURING SHS OF MATERIALS WITH FLUORINE PHLOGOPITE MATRIX
Ivan Kovalev [1], Vazgen Loryan [2], Alexander Kachin [2], Inna Borovinskaya [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1161
COMBUSTION SYNTHESIS OF METAL SULFIDE CERMETS: COMBUSTION CHARACTERISTICS, AND MECHANICAL PROPERTIES
Atefeh Nabavi [1], Samuel Goroshin [1], David Frost [1], Francois Barthelat [1]
McGill University Mechanical Eng Montreal-Canada [1]

Abstract No : 1016
THE EFFECT OF PRELIMINARY MACHANICAL ACTIVATION ON STRUCTURAL CHARACTERISTICS OF THE REACTION MIXTURE Ti + Ni
Olga Shkoda [1], Oleg Lapshin [1]
Tomsk Science Centre Structural Macrokinetics Tomsk-Russia [1]

Abstract No : 1046
THE INFLUENCE OF 'L – S' ENVIRONMENT SYSTEM ON PHASE FORMATION DURING COMBUSTION OF THE SHS SYSTEM 'W – Tl – N'
Larisa Raskolenko [1], *Olga Shkoda* [1]
Tomsk Science Centre Structural Macrokinetics Tomsk-Russia [1]

3.SHS of powder materials (micron, submicron- and nano scale)

Abstract No : 1037
COMBUSTION SYNTHESIS AND DIELECTRIC PROPERTIES OF THE DOPED BARIUM TITANATE
Aleksandr Khort [1], Evgeniya Dyatlova [1], Kirill Podbolotov [1]
Belarusian State Technological University Glass and Ceramic Technologies Minsk-Belarus [1]

Abstract No : 1056
PHASE EVOLUTION OF YAG POWDERS OBTAINED BY GEL COMBUSTION COMBINED WITH FIELD-ASSISTED RAPID SYNTHESIS TECHNIQUE
Rongrong Wang [1], *Yucheng Wang* [1]
Wuhan University of Technology State Key Lab of Advanced Technology for Materials Synthesis and Processing Wuhan-China [1]

Abstract No : 1058
DEVICE OF MOLTEN GRANULATION FOR OBTAINING THE POWDER MATERIALS FOR SHS
David Sakhvadze [1], Ivan Gorbenko [1], Teimuraz Tsirekidze [1], Gigo Jandieri [1], Alexander Shteinberg [2]
LEPL Ferdinand Tavadze Institute of Metallurgy and Materials Science 8 laboratory Tbilisi-Georgia [1] ALOFT, Chem. Eng. and Mater. Sci. Consulting Inc., Berkeley ALOFT, Chem. Eng. and Mater. Sci. Consulting Inc., Berkeley Tbilisi-United States[2]

Abstract No : 1059
SOLUTION COMBUSTION SYNTHESIS OF LUMINESCENT PIGMENTS ON THE BASES OF Co-Al-Mg-Ba-O, Co-Al-B-O, Co-Ba-B-O FOR INK APPLICATIONS
EIRINI PAVLOU [1], GALINA Xanthopoulou [2], MARIOS Tsigonias [3], GEORGE Vekinis [2]
Technological Educational Institute of Athens/NCSR DEMOKRITOS Department of graphic arts technology/Institute of nanoscience and nanotechnology ATHENS-Greece [1] NCSR DEMOKRITOS Institute of nanoscience and nanotechnology ATHENS-Greece [2] Technological Educational Institute of Athens Department of graphic arts technology ATHENS-Greece [3]

Abstract No : 1063
HYDROTHERMAL SYNTHESIS OF ONE DIMENSIONAL TiO_2 POWDERS
Nursev Bilgin [1], Jongee Park [2], Abdullah Ozturk [1]
METU Metallurgical and Materials Engineering Ankara-Turkey [1] Atilim University Metallurgical and Materials Engineering Ankara-Turkey [2]

Abstract No : 1071
Ni–Al INTERMETALLICS DISPERSION-STRENGTHENED WITH CR2O3: SYNTHESIS AND CHARACTERIZATION

A.E. Sytschev, O.D. Boyarchenko, S.G. Vadchenko, A.S. Shchukin, and I.D. Kovalev
Institute of Structural Macrokinetics and Materials Science,Russian Academy of Sciences, Chernogolovka-Russia

Abstract No : 1081
PHYSICO-CHEMICAL PROPERTIES OF COMBUSTION SYNTHESIS CATALYSTS AND THEIR ACTIVITY IN LIQUID PHASE HYDROGENATION
Olga Thoda [1], Galina Xanthopoulou [2], Alexander Chroneos [3], George Vekinis [1]
NCSR "Demokritos" INN Athens-Greece [1] NCSR"Demokritos INN Athens-Greece [2] Coventry University Faculty of Engineering and Computing Coventry-United Kingdom [3]

Abstract No : 1082
INFLUENCE OF SCS CONDITIONS ON PROPERTIES OF NANOSTRUCTURED METALS AND ALLOYS
Dimitris Tzavellas [1], *Galina Xanthopoulou* [2], George Vekinis [3]
NTUA School of Chemical Engineering Athens-Greece [1] NCSR"Demokritos INN Athens-Greece [2] NCSR"Demokritos" INN Athens-Greece [3]

Abstract No : 1107
EVALUATION OF SHS POWDER COMPOSITION UNIFORMITY USING SPECTRAL ANALYSIS METHODS
Alexey Postnikov [1], Valery Mokrushin [1], *Andrey Potekhin* [1], Irina Tsareva [1], Olga Yunchina [1], Maxim Tsarev [1], Pavel Berezhko[1]
Russian Federal Nuclear Centre - All-Russia Research Institute of Experimental Physics Rosatom Sarov, Nizhny Novgorod region-Russia [1]

Abstract No : 1118
SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS OF TITANIUM NITRIDE OVER AMMONIUM CHLORIDE
Vladimir Zakorzhevsky [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1129
COBALT CATALYSTS SYNTHESISED BY SOLUTION COMBUSTION FOR DRY REFORMING OF METHANE
Kostas Karanasios [1], *Galina Xanthopoulou* [1], George Vekinis [1]
NCSR "Demokritos" INN Athens-Greece [1]

Abstract No : 1015
SYNTHESIS OF SINGLE-PHASE NIOBIUM SILICIDE BY SELF-PROPAGATING HIGH TEMPERATURE SYNTHESIS WITH USING PRELIMINARY MECHANICAL ACTIVATION
Olga Shkoda [1], Olga Terekhova [1]
Tomsk Science Centre Structural Macrokinetics Tomsk-Russia [1]

4.SHS of bulk materials (advanced functional and constructional materials, including biomaterials, intermetallic alloys, composites, foams etc.)

Abstract No : 1011
SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS OF BIOCERAMIC MATERIALS IN THE Ti-C-$Ca_3(PO_4)_2$ SYSTEM
Artem Potanin [1], Evgeniy Levashov [1], Yuriy Pogozhev [1], Nataliya Shvindina [1], Dmitriy Kovalev [2]
National University of Science and Technology "MISiS", Moscow-Russia [1]; Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[2]

Abstract No : 1017
SYNTHESIS OF MATERIALS IN Ti-Cr-C-Me SYSTEM
George Oniashvili [1], Zurab Aslamazashvili [1], Garegin Zakharov [1], Giorgi Tavadze [2], George Mikaberidze [1]
F.Tavadaze Institute of Metallurgy and Materials Science Laboratory of SHS problems Tbilisi-Georgia [1] F.Tavadaze Institute of Metallurgy and Materials Science Director Tbilisi-Georgia [2]

Abstract No : 1018
SYNTHESIS OF GRADIENT MATERIALS ON THE BASIS OF INTERMETALLICS
Giorgi Tavadze [1], George Oniashvili [2], Zurab Aslamazashvili [2], Garegin Zakharov [2], Mikheil Chikhradze [2]
F.Tavadaze Institute of Metallurgy and Materials Science Director Tbilisi-Georgia [1] F.Tavadaze Institute of Metallurgy and Materials Science Laboratory of SHS problems Tbilisi-Georgia [2]

Abstract No : 1019
TECHNOLOGY FOR SYNTHESIS OF MULTIFUNCTIONAL CERAMIC MATERIALS
Zurab Aslamazashvili [1], George Oniashvili [1], Garegin Zakharov [1], Giorgi Tavadze [1], Gulnara Urushadze [1]
F.Tavadaze Institute of Metallurgy and Materials Science Laboratory of SHS problems Tbilisi-Georgia [1]

Abstract No : 1020
SHS-HEAT INSULATORS BASED ON THE MODIFIED TECHNOGENIC RAW MATERIALS
Zulhair Mansurov [1], Nina Mofa [2], *Bakhtiyar Sadykov* [2], Zhandarbek Sabayev [2]
The Institute of Combustion Problems The Institute of Combustion Problems Almaty-Kazakhstan [1] The Institute of Combustion Problems Laboratory of mechanochemical processes Almaty-Kazakhstan [2]

Abstract No : 1026
FABRICATION OF MAGNESIUM SILICIDE VIA MECHANICALLY ACTIVATED SHS FOLLOWED BY SHOCKWAVE CONSOLIDATION
Armando Delgado [1], Sergio Cordova [1], David Nemir [2], *Evgeny Shafirovich* [1]
The University of Texas at El Paso Mechanical Engineering El Paso-United States [1] TXL Group Inc. N/A El Paso-United States [2]

Abstract No : 1032
EVALUATION OF COMBUSTION TEMPERATURE AND COMBUSTION SPEED OF THE PROCESS OF SH-SYNTHESIS OF TITANIUM OXIDE BRONZE
Margarita Kotvanova [1], Nadezhda Blinova [1], Yuri Gulyaev [2], Alexey Dolmatov [2], Svetlana Pavlova [1]
Yugra State University Institute of Nature Khanty-Mansiysk-Russia [1] Yugra State University Polytechnic Institute Khanty-Mansiysk-Russia [2]

Abstract No : 1042
STRUCTURAL CHARACTERIZATION AND SUPERCONDUCTING PROPERTIES OF Nb_3Al BY COMBUSTION SYNTHESIS
Ali HAFS [1], Abdel AZIZ Benaldijia [2], Badis BENDJEMIL [3]
University of El Tarf DEPARTEMENT SCIENCE DE LA MATIERE B.P. 73, El Tarf, 36000 Algeria-Algeria [1] University of Annaba mecanique B.P. 12, Annaba, 23000 Algeria-Algeria [2] University of Guelma MECANIQUE B.P. 401, Guelma, 24000 Algeria-Algeria [3]

Abstract No : 1043
FABRICATION OF Cu–20AT.% Sb SEMICONDUCTING PROPERTIES BY COMBUSTIONSYNTHESIS METHOD
Ali HAFS [1], Abdel AZIZ Benaldijia [2], Badis BENDJEMIL [3]
University of El Tarf DEPARTEMENT SCIENCE DE LA MATIERE B.P. 73, El Tarf, 36000 Algeria-Algeria [1] University of Annaba mecanique B.P. 12, Annaba, 23000 Algeria-Algeria [2] University of Guelma MECANIQUE B.P. 401, Guelma, 24000 Algeria-Algeria [3]

Abstract No : 1044
MICROSTRUCTURE EVOLUTION AND MANGNETIQUE PROPRIETIES OF NANOCRYSTALLINE Fe_{60} $Cu_{30}Al_{10}$ PREPARED BY COMBUSTION PROCESSES
Ali HAFS [1], Abdel AZIZ Benaldijia [2], Badis BENDJEMIL [3]
University of El Tarf DEPARTEMENT SCIENCE DE LA MATIERE B.P. 73, El Tarf, 36000 Algeria-Algeria [1] University of Annaba mecanique B.P. 12, Annaba, 23000 Algeria-Algeria [2] University of Guelma MECANIQUE B.P. 401, Guelma, 24000 Algeria-Algeria [3]

Abstract No : 1053
ULTRA-FAST DENSIFICATION OF BORON CARBIDE CERAMICS BASED ON SELF-PROPAGATING HIGH-TEMPERATURE SYSTHESIS
Fan Zhang [1], Zhengyi Fu [1]
Wuhan University of Technology State Key Lab of Advanced Technology for Materials Synthesis and Processing Wuhan-China [1]

Abstract No : 1065
SHS-PRODUCED TRANSITION METAL SILICIDES: SYNTHESIS AND SINTERING
Vladimir Gorshkov [1], Pavel Miloserdov [1], *Dmitrii Andreev* [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1068
STRUCTURAL HEREDITY OF ALLOYS OBTAINED BY CENTRIFUGAL SHS: INFLUENCE OF REMELTING TEMPERATURE
Vitalii Sanin [1], Yurii Anikin [1], *Vladimir Yukhvid* [2], Michael Filonov [1]
National University of Science and Technology "MISiS", Moscow-Russia [1]; Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[2]

Abstract No : 1072
SHS OF COMPOSITE MATERIALS BASED ON Ti-Co
Sytschev A.E., Kamynina O.K., Umarov L.M., Schukin A.S., Zhidkov M.V
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka-Russia

Abstract No : 1077
SHS OF POLYMETALLIC CATALYSTS WITH MULTIFUNCTIONAL PROPERTIES
Vecheslav Borshch[1], Vladimir Sanin[1], Elena Pugacheva[1], Sergey Zhuk[1], Dmitriy Andreev[1], Vladimir Yukhvid[1], Oleg Eliseev[2], Roman Kazantsev[2], Sergey Kolesnikov[3], Igor Kolesnikov[3]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]
N.D.Zelinsky Institute of Organic Chemistry RAS, Moscow- Russia[2] I.M.Gubkin Russian State University of Oil and Gas, Moscow- Russia[3]

Abstract No : 1084
NOVEL SHS INDUSTRIAL REFRACTORIES BASED ON CHROMITE AND FERROUS WASTES
Constantinos Bangos [1], *Galina Xanthopoulou* [2], George Vekinis [3]
Aristotle University of Thessaloniki Department of Physics Thessaloniki-Greece [1] NCSR"Demokritos INN Athens-Greece [2] NCSR"Demokritos" INN Athens-Greece[3]

Abstract No : 1094
IMPROVEMENT IN THE DURABILITY OF ALUMINIDE INTERMETALLIC COATINGS BY MICROWAVE-ASSISTED COMBUSTION SYNTHESIS STRATEGIES
Roberto Rosa [1], Paolo Veronesi [1], Angelo Casagrande [2]
University of Modena and Reggio Emilia Department of Engineering Enzo Ferrari Modena-Italy [1] University of Bologna Department of Industrial Engineering Bologna-Italy [2]

Abstract No : 1095
SHS OF CAST NiCrCoFeMnAlX NANO-STRUCTURED HIGH ENTROPY ALLOYS AND COATINGS OF THEM
Denis Ikornikov [1], Vladimir Sanin [1], Vladimir Yukhvid [1], Dmitrii Andreev [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1100
STRUCTURE FORMATION IN THIN LAYERS OF BALLS AT AXIAL COMPACTION. I. CYLINDRICAL MATRIX
Michail Ponomarev [1], *Vazgen Loryan* [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1102
STRUCTURE FORMATION IN THIN LAYERS OF BALLS AT AXIAL COMPACTION. II. MATRIX OF SQUARE SECTION
Michail Ponomarev [1], Vazgen Loryan [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1104
STRUCTURE FORMATION IN THIN LAYER OF BALLS AT AXIAL COMPACTION. III. MATRIX OF HEX-TYPE CROSS SECTION
Michail Ponomarev [1], Vazgen Loryan [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1105
SHS OF COMPOSITE MATERIALS BASED ON Ti+2B MIXTURE CONTAINING TITANIUM PARTICLES OF SPHERICAL AND DENDRITE SHAPE
Michail Ponomarev [1], Vazgen Loryan [1], Inna Borovinskaya[1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1106
SHS OF Ti-Al-B SYSTEM FROM Ti+2B MIXTURE WITH ALUMINUM-CLAD TITANIUM SPHERICAL PARTICLES
Michail Ponomarev [1], Vazgen Loryan [1], Inna Borovinskaya [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1108
MECHANICALLY ACTIVATIVATED SHS OF TARGET MATERIALS IN Ti-Al-C AND Si-B-C SYSTEMS FOR PVD OF TRIBOLOGICAL COATINGS
Yury Pogozhev [1], Artem Potanin [1], Pavel Loginov [1], Evgeny Patsera [1], Nataliya Zvyaginceva [1], Evgeny Levashov [1], Nikolay Kochetov [2]
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Abstract No : 1112
SHS SURFACING WITH THERMITE NiO–Al MIXTURE
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Abstract No : 1113
SYNTHESIS OF CAST OXIDE MATERIALS IN THE Al–O–N SYSTEM
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Abstract No : 1119
FORMATION OF ULTRAFINE GRAIN STRUCTURE IN THE SHS-PRODUCED CAST Co-Cr-Mo-ALLOY BY PLASTIC DEFORMATION
Yuriy Kolobov[1], Sergey Bozhko[2], Evgeniy Golosov[3], Vladimir Sanin[3], Denis Ikornokov[3], Vladimir Yukhvid[3]
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Abstract No : 1132
INFLUENCE OF MECHANOCHEMICAL TREATMENT OF Ni+Al POWDER MIXTURES ON PHYSICAL AND CATALYTIC PROPERTIES OF COATINGS PRODUCED BY “CAFSY” METHOD
Amalia Marinou [1], Kostas Karanasios [1], *Galina Xanthopoulou* [1], George Vekinis [2], Domenique Vrel [3]
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Abstract No : 1133
STUDY OF CATALYTIC ACTIVITY OF COATINGS PRODUCED BY CAFSY METHOD IN DRY REFORMING OF METHANE
Galina Xanthopoulou [1], Amalia Marinou [2], Kostas Karanasios [2], George Vekinis [2]
NCSR "Demokritos" INN Athens-Greece [1] NCSR "Demokritos" Institute of Nanoscience and Nanotechnology Athens-Greece[2]

Abstract No : 1146
EFFECT OF MECHANICAL ACTIVATION OF Ta-Zr-C MIXTURES ON PHASE COMPOSITION OF SHS-PRODUCTS
Stepan Vorotylo [1], Evgenii Patsera [1], Victoria Kurbatkina [1], Evgenii Levashov [1]
National University of Science and Technology "MISiS", Moscow-Russia [1]

Abstract No : 1150
OPTIMIZATION OF PARAMETERS OF FERROMOLYBDENUM PRODUCTION VIA METALOTHERMIC REDUCTION PROCESS
Murat Alkan [1], Güvenc Güven [2], Bora Derin [2], Onuralp Yücel [2]
MTA Mineral Research & Exploration Gen. Direct. Dept. of Mining Analysis and Tech. Ankara-Turkey [1] Istanbul Technical University Metallurgical and Materials Eng. Dept. Istanbul-Turkey [2]

Abstract No : 1151
PRODUCTION AND IMPROVEMENT OF THE Ni-Cr-B ALLOYS VIA SHS
Murat Alkan [1], Özge Caglar Yilmaz [2], Onuralp Yücel [2]
MTA Mineral Research & Exploration Gen. Direct. Dept. of Mining Analysis and Tech. Ankara-Turkey [1] Istanbul Technical University Metallurgical and Materials Eng. Dept. Istanbul-Turkey [2]

Abtract No: 1169
DIFFERENT IGNITION STRATEGIES IN THE COMBUSTION SYNTHESIS OF Ni-Ti INTERMETALLICS
P. Bassani[1], C.A. Biffi[1], R. Rosa[2], P. Veronesi[2], C. Leonelli[2]
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Abtract No: 1170
INFLUENCE OF LASER PARAMETERS ON POROUS NiTinol SHAPE MEMORY ALLOY PRODUCED BY SHS
P. Bassani[1], C.A. Biffi[1], M. Coduri[1], P. Giuliani[2], Z. Sayedi[3], Tuissi[1].
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Abtract No: 1171
FORMATION OF (Ti,Zr)B2 SOLID SOLUTIONS BY SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS
H.E. Çamurlu[1], C.B. Derin[2], S.F. Polat[1]
Akdeniz University, Faculty of Engineering, Department of Mechanical Engineering 07058 Antalya, Turkey[1] , Istanbul Technical University, Faculty of Chemical and Metallurgical Engineering, Department of Metallurgical and Materials Engineering 34469 Maslak, Istanbul, Turkey[2]

5.Boron related SHS materials

Abstract No : 1023
MECHANICALLY ACTIVATED SHS OF MOLYBDENUM BOROSILICIDE BASED MATERIALS FOR ULTRAHIGH-TEMPERATURE STRUCTURAL APPLICATIONS
Alan Esparza [1], *Evgeny Shafirovich* [1]
The University of Texas at El Paso Mechanical Engineering El Paso-United States [1]

Abstract No : 1028
OBTAINING OF BORON CONTAINING MATERIALS BY SHS
Garegin Zakharov [1], George Oniashvili [1], Zurab Aslamazashvili [1], Giorgi Tavadze [2], Dimitri Macharadze [3]
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Abstract No : 1031
SELF-PROPAGATING HIGH TEMPERATURE SYNTHESIS OF COMPOSITES ON THE BASIS OF $ZrB_2 – Al_2O_3$
Roza Abdulkarimova [1], Kaster Kamunur [2], Danara Raimkhanova [1], Maulet Skakov [1], Zulkhair Mansurov [1]
Institute of Combustion Problems Laboratory of new SHS materials Almaty-Kazakhstan [1] Department of chemical physics Al-Farabi Kazakh National University Almaty-Kazakhstan [2]

Abstract No : 1045
EFFECTS OF BORONIZING COMPOSITION ON AISI 8620 STEEL CAM SHAFT
Şaban Gezer [1], Mehmet Kul [1], Kürşad Oğuz Oskay [1], Bahadır Karaca [2], Fatih Özaydın [3], Oğuz Han Bolat [1], Ahmet Emre Babatutmaz [1]
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Abstract No : 1047
EFFECTS OF BORONIZING COMPOSITION ON AISI 1045 STEEL CAM SHAFT
Şaban Gezer [1], Mehmet Kul [1], Kürşad Oğuz Oskay [1], Bahadır Karaca [2], Fatih Özaydın [3], Oğuz Han Bolat [1], Ahmet Emre Babatutmaz [1]
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Abstract No : 1049
EFFECTS OF BORONIZING COMPOSITION ON GGG 60 CAM SHAFT
Aydın Temizkan [1], Mehmet Kul [1], Kürşad Oğuz Oskay [1], Bahadır Karaca [2], Baran Topçu [1]
Cumhuriyet University Department of Metallurgical and Materials Engineering Sivas-Turkey [1] ESTAŞ Eksantrik San Ve Tic. A.Ş R&D Center Sivas-Turkey [2]

Abstract No : 1090
INFLUENCE OF SYNTHESIS CONDITIONS ON BORON CARBIDE SHS
Ivan Kovalev [1], Vasiliy Ponomarev [1], Sergey Konovalikhin [1], Dmitriy Kovalev [1], Vladimir Vershinnikov [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1]

Abstract No : 1114
CAST Mo_2NiB_2 AND Mo_2FeB_2 METAL-MATRIX COMPOSITES BY COMBINED CENTRIFUGAL CASTING–SHS PROCESS
Denis Ikornikov [1], Vladimir Sanin [1], Vladimir Yukhvid [1], Dmitrii Andreev [1], Onuralp Yucel [2], Bora Derin [2]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1] Istanbul Technical University Department of Metallurgical and Materials Engineering Istanbul-Turkey [2]

Abstract No : 1145
SELF-PROPAGATING HIGH-TEMPERATURE SYNTHESIS OF BORON SUBPHOSPHIDE $B_{12}P_2$
Vladimir Mukhanov [1], Petr Sokolov [1], Ovidiu Brinza [1], Dominique Vrel [1], Vladimir Solozhenko [1]
CNRS LSPM Villetaneuse-France [1]

6.Novel approaches and SHS related processes (SHS and shock waves, sol-gel auto-combustion synthesis, SHS in nano-systems etc.)

Abstract No : 1024
COMBUSTIBLE MIXTURES FOR HYDROGEN AND IODINE GENERATION BASED ON MECHANICALLY ALLOYED REACTIVE MATERIALS
Sergio Guerrero [1], Daniel Rodriguez [1], Edward Dreizin [2], Evgeny Shafirovich [1]
The University of Texas at El Paso Mechanical Engineering El Paso-United States [1] New Jersey Institute of Technology Chemical, Biological, and Pharmaceutical Engineering Newark-United States [2]

Abstract No : 1052
FEATURES OF SYNTHESIS OF MATERIALS DURING ALUMINOTHERMIC PROCESS IN CONDITIONS OF ROTATION
Georgy Ksandopulo [1], Anna Baideldinova [1], Ludmila Mukhina [1], Elena Ponomareva [1], Bagzhan Nurahmetov [2]
Institute of Combustion Problems Laboratory of Combustion Problems Almaty-Kazakhstan [1] Kazakh National University by al Faraby Physical Almaty-Kazakhstan [2]

Abstract No : 1054
INFLUENCE OF DISPERSITY ON EXPLOSIVE SOLID-STATE SYNTHESIS IN THE Al–S SYSTEM
Oksana Ivanova [1], Sergey Zelepugin [1]
Tomsk Scientific Center SB RAS Department for Structural Macrokinetics Tomsk-Russia [1]

Abstract No : 1075
CATALYSTS PRODUCED BY SOLUTION COMBUSTION SYNTHESIS FOR LOW TEMPERATURE CO OXIDATION
Vladislav Novikov [1], Galina Xanthopoulou [2], Yuriy Knysh [1], Alexander Amosov [3]
Samara State Aerospace University Department of Theory of Aircraft Engines Samara-Russia [1] NCSR"Demokritos INN Athens-Greece [2] Samara State Technical University SHS Engineering Center Samara-Russia [3]

Abstract No : 1101
THE INFLUENCE OF ELECTRON IRRADIATION ON THE OXIDATION AND BURNING OF METAL NANOPOWDERS
Yessen Dilmukhambetov [1], Madina Ospanova [1], Alexander Ilyin [2]
Kazakh National Agrarian University Kazakhstan-Japan Innovation Center Almaty-Kazakhstan [1] National Research Tomsk Polytechnic University Tomsk-Russia [2]

Abstract No : 1124
NANOSTRUCTURED MATERIALS FROM IMMISIBLE METALS BY A COMBINATION OF HIGH-ENERGY BALL MILLING AND SPARK PLASMA SINTERING
Natalia Shkodich [1], Alexander Rogachev [1], Alexander Mukasyan [2], Dmitry Moskovskikh [3], Sergey Vadchenko [1], Kirill Kuskov [3], Ivan Kovalev [1]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1] University of Notre Dame Department of Chemical and Biomolecular Engineering Notre Dame-United States [2] National University of Science and Technology "MISiS", Moscow-Russia [3]

Abstract No : 1125
HIGH EHERGY BALL MILLING AND SPARK PLASMA SINTERING OF NANOSTRUCTURED W-Cu-Cr COMPOSITE AND ITS CHARACTERIZATION
Natalia Shkodich [1], Alexander Rogachev [1], Alexander Mukasyan [2], Dmitry Moskovskikh [3], Natalia Homenko [1], Abay Reshimov [3]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1] University of Notre Dame Department of Chemical and Biomolecular Engineering Notre Dame-United States [2] National University of Science and Technology "MISiS", Moscow-Russia [3]

Abstract No : 1126
A NOVEL PREPARATION TECHNIQUE OF METAL AND METAL OXIDE MICROSPHERES BY SOLUTION COMBUSTION IN ULTRASOUNIC – GENERATED AQUEOUS AEROSOLS
German Trusov [1], Alexey Tarasov [2], Alexander Rogachev [1], Alexander Mukasyan [3]
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Abstract No : 1128
THE SYNTHESIS OF NANOSIZED COBALT AND CERIUM OXIDES BY «SOLUTION COMBUSTION»
Daniyar Khusainov [1], Solgen Kim [1], Gaukhar Smagulova [1], *Zulkhair Mansurov* [1]
Institute of Combustion Problems Chemistry and Chemical Technology Almaty-Kazakhstan [1]

Abstract No : 1136
SYNTHESIS OF NANOCRYSTALLINE ALPHA-HEMATITE (α-Fe_2O_3) MICROSPHERES BY SOLUTION COMBUSTION IN ULTRASOUNIC – GENERATED AQUEOUS AEROSOLS
German Trusov [1], Alexey Tarasov [2], Alexander Rogachev [1], Alexander Mukasyan [3]
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Abstract No : 1137
ONE-STEP SYNTHESIS OF NICKEL-BASED CATALYSTS COMPOSITIONS BY SOLUTION COMBUSTION METHOD IN ULTRASOUNIC – GENERATED AQUEOUS AEROSOLS
German Trusov [1], Alexey Tarasov [2], Alexander Rogachev [1], Alexander Mukasyan [3]
Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences, Chernogolovka- Russia[1] Institute of Problems of Chemical Physics Russian Academy of Sciences, Chernogolovka- Russia[2] University of Notre Dame Department of Chemical and Biomolecular Engineering Notre Dame-United States [3]

Abstract No : 1160
OBTAINING CERMET MATERIALS IN Ti-Si-C SYSTEM
Kirill Sidnov [1], Alexander Rogachev [1], Andrey Nepapushev [1]
National University of Science and Technology "MISiS", Moscow-Russia [1]

7.Application and Industrialization

Abstract No : 1030
PLASMA SPRAY OF METAL AND CERMET COATINGS FROM Ni-Al ALLOYS PREPARED BY SHS PROCESS
Igor Gulyaev [1], Pavel Gulyaev [2], Irina Milyukova [2]
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Abstract No : 1064
THE METALLURGICAL SHS PROCESS
Mansur Ziatdinov [1]
State University Tomsk State University Tomsk-Russia [1]

Abstract No : 1083
SOLUTION COMBUSTION SYNTHESIS OF LUMINESCENT PIGMENTS BASED ON THE SYSTEMS Co-Al-Mg-BA-O, Co-Al-B-O AND Co-Ba-B-O FOR INK APPLICATIONS
Eirini Pavlou [1], *Galina Xanthopoulou* [2], Marios Tsigonias [1], George Vekinis [3]
Technological Educational Institute of Athens Dept of Graphic Arts Technology Atens-Greece [1] NCSR"Demokritos INN Athens-Greece [2] NCSR"Demokritos" INN Athens-Greece [3]

Abstract No : 1131
REFRACTORY AND HEAT INSULATING SHS-MATERIALS
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Abstract No : 1163
ANTIMONY PRODUCTION BY USING NIEDERSCHLAG PROCESS
Sedef Pinar Basag [1], *Ahmet Turan* [2], Onuralp Yucel [1]
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