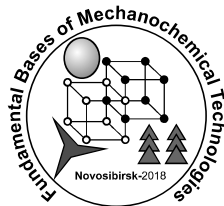


INSTITUTE OF SOLID STATE CHEMISTRY AND MECHANOCHEMISTRY SB RAS

NOVOSIBIRSK STATE UNIVERSITY

**V International Conference
«Fundamental Bases of Mechanochemical Technologies»**

FBMT- 2018



PROGRAM

Novosibirsk

2018

Organized by



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Acknowledgements:



RUSSIAN
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Russian Foundation for Basic Research
(project № 18-03-20029)



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ABEX Co.



NOVIC Co.

Monday, June 25		
10:00 - 19:00	Registration at the Hotel "Zolotaya Dolina" ("Golden Valley")	
15:00 - 18:00	Excursions to the Novosibirsk State University and Siberian Synchrotron and Terahertz Radiation Centre	
Tuesday, June 26		
8:00 - 9:00	Registration at the Academpark (Nikolaev str., 12, 2nd floor)	
9:00 - 9:10	Opening Remarks (Big Conference hall)	
9:10 - 11:15	Plenary Session (Big Conference hall)	
11:15 - 11:30	Coffee Break. Poster Session I	
11:30 - 13:30	Section I (Conference hall 1)	Section II (Conference hall 2)
13:30 - 14:30	Lunch Break	
14:30 - 16:10	Section I (Conference hall 1)	Section II (Conference hall 2)
16:10 - 16:40	Coffee Break. Poster Session I	
16:40 - 18:00	Section I (Conference hall 1)	Section II (Conference hall 2)
18:30	Welcome Reception at the restaurant «Kukuruzza» (Nikolaev str., 12, 2nd floor)	
Wednesday, June 27		
9:00 - 11:10	Section II (Conference hall 1)	Section IV (Conference hall 2)
11:10 - 11:30	Coffee Break. Poster Session II	
11:30 - 13:30	Section III (Conference hall 1)	Section IV (Conference hall 2)
13:30 - 14:30	Lunch Break	
14:30 - 16:10	Section III (Conference hall 1)	Section IV (Conference hall 2)
16:10 - 16:40	Coffee Break. Poster Session II	
16:40 - 18:00	Section III (Conference hall 1)	Section IV (Conference hall 2)
18:30	Meeting of the Advisory Committee	
Thursday, June 28		
9:00 - 11:20	Section III (Conference hall 1)	Section V (Conference hall 2)
11:20 - 11:40	Coffee Break. Poster Session III	
11:40 - 13:20	Section III (Conference hall 1)	Section V (Conference hall 2)
13:20 - 14:30	Lunch Break	
14:30 - 16:10	Section III (Conference hall 1)	Section V (Conference hall 2)
16:10 - 16:40	Coffee Break. Poster Session III	
16:40 - 17:30	Section III (Conference hall 1)	Section V (Conference hall 2)
17:30 - 18:30	General discussion. End of the Conference	
18:30	Conference Banquet at the restaurant "Teplitsa" (Nikolaev str., 12, 3d floor)	

Section I.

Theoretical Aspects of Mechanical Activation. Mechanochemical Reactions: Kinetics and Mechanisms.

Section II.

Mechanochemical Synthesis. Mechanical Alloying.

Section III.

Mechanochemistry of Organic Systems and Plant Raw Materials.

Section IV.

Mechanochemistry for the Design of New Materials Including Materials for Energetics and Additive Technologies.

Section V.

New Mechanochemical Technologies.

PROGRAM

Monday, June 25, 2018

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Tuesday, June 26, 2018

8:00 – 9:00 Registration at the Academpark (Nikolaev str., 12, 2nd floor)

Chairman: Prof. Mamoru Senna

Opening Remarks

9:00

Welcome speech by Academician Vladimir Boldyrev

9:10

Mamoru Senna (*Keio University, Japan*). **MECHANOCHEMICAL ABSTRACTION OF LATTICE OXYGEN FROM STABLE OXIDES BY ELECTROPHILES TOWARD FUNCTIONAL NANOCOMPOSITES.**

9:35

A.S. Rogachev, M.I. Alymov (*Merzhanov Institute of Structural Macrokinetics and Materials Science RAS, Chernogolovka, Moscow region, Russia*). **MECHANICAL ACTIVATION OF REACTIVE SHS-MIXTURES AND SYNTHESIS OF MATERIALS.**

10:00

Rakesh Kumar (*CSIR-National Metallurgical Laboratory, Jamshedpur, India*). **ON THE KINETICS AND MECHANISMS OF REACTIONS INVOLVING MECHANICALLY ACTIVATED SOLIDS.**

10:25

E.V. Boldyreva (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **MECHANOCHEMISTRY OF ORGANIC COMPOUNDS. STATE OF THE ART AND CHALLENGES.**

10:50

N.Z. Lyakhov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **TECHNOLOGICAL FUTURE OF MECHANOCHEMISTRY.**

11:15

Coffee Break. Poster Session I

Section I

Chairman: Prof. Mikhail I. Alymov

- 11:30** F. Emmerling, I. Akhmetova, S. Haferkamp, H. Kulla, K. Linb (*BAM – Federal Institute for Materials Research and Testing, Berlin, Germany*). **NEW INSIGHTS IN MECHANO-CHEMICAL PROCESSES USING REAL-TIME IN SITU INVESTIGATIONS.**
- 11:50** B.P. Tolochko, K.A. Ten, A.S. Arakcheev (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Lavrentyev Institute of Hydrodynamics SB RAS, Novosibirsk, Russia; Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia*). **THE MECHANO-CHEMISTRY MODEL EXPERIMENTS OF IMPACT COMPRESSION AND IMPULS LASER HIGH-TEMPERATURE HEATING.**
- 12:10** V.V. Kurbatkina, E.I. Patsera, S. Vorotilo, E.A. Levashov (*National University of Science and Technology «MISIS», Department of Powder Metallurgy and Functional Coatings, Scientific-Educational Center of SHS MISIS-ISMAN, Moscow Russia*). **APPLICATION OF MECHANICALLY-ACTIVATED SHS FOR THE SYNTHESIS OF SOLID SOLUTIONS IN THE QUASI-BINARY SYSTEM TaC-ZrC.**
- 12:30** M.A. Korchagin, N.Z. Lyakhov, A.I. Gavrilov, B.B. Bokhonov, V.E. Zarko, O.G. Glotov, N.V. Bulina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*). **SYNTHESIS OF ALUMINUM AND MAGNESIUM DIBORIDES BY THERMAL EXPLOSION IN MECHANICALLY MILLED POWDER MIXTURES.**
- 12:50** O.A. Shkoda, O.V. Lapshin (*Tomsk Scientific Center SB RAS, Tomsk, Russia*). **MECHANICAL ACTIVATION AND THERMAL EXPLOSION IN A LOW-CALORIE POWDER MIXTURE Nb + 2Si. EXPERIMENT AND MATHEMATICAL MODEL.**
- 13:10** Yu.A. Chumakov, A.G. Knyazeva (*Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk Polytechnic University, Tomsk, Russia*). **MODEL OF COMBUSTION OF MECHANICALLY ACTIVATED Ti-C, Ti-B, Ti-Si POWDER MIXTURES.**
- 13:30** **Lunch Break**

Section II

Chairmen: Prof. Nikolay Z. Lyakhov

- 11:30** T.F. Grigoreva, B.P. Tolochko, A.I. Ancharov, V. Šepelák, S.V. Vosmerikov, E.T. Devyatkina, T.A. Udalova, S.A. Petrova, N.Z. Lyakhov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Institute of Nanotechnology, Karlsruhe, Germany; Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Metallurgy UB RAS, Ekaterinburg, Russia*). **MECHANO-CHEMICAL SYNTHESIS OF METAL NANOCOMPOSITES AND CARBIDES.**
- 11:50** A.A. Gusev, V.P. Isupov, I.P. Raevski (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Southern Federal University, Research Institute of Physics and Faculty of Physics, Rostov-on-Don, Russia*). **MECHANO-CHEMICAL SYNTHESIS OF TERNARY PEROVSKITE Pb_2InNbO_6 .**
- 12:10** N.V. Eremina, V.P. Isupov, N.V. Bulina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANO-CHEMICALLY STIMULATED SYNTHESIS OF α - $LiAlO_2$.**
- 12:30** V.P. Isupov, I.A. Borodulina, N.V. Eremina, N.V. Bulina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANICALLY STIMULATED THERMAL SYNTHESIS OF LITHIUM ALUMINATES.**
- 12:50** T.A. Udalova, S.V. Vosmerikov, T.F. Grigoreva, E.T. Devyatkina, N.Z. Lyakhov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia*). **HIGH-DISPERSED POWDERS OF COPPER AND MOLYBDEN OBTAINED BY MECHANO-CHEMICAL REDUCTION OF THEIR OXIDES BY MAGNESIUM.**
- 13:10** A.S. Akimov, M.A. Morozov, T.V. Petrenko, A.S. Vosmerikov, S.V. Panin (*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia*). **NEW SOLID-PHASE METHOD OF SYNTHESIS OF POLYOXOMETALLATE COMPOUNDS OF MOLYBDENUM.**
- 13:30** Lunch Break

Section I

Chairman: Prof. Rakesh Kumar

- 14:30** Chen Wang, Yuan-Fang Ying, Chengmin Wang, Hong Gao (*School of Materials Science and Engineering, Dalian Jiaotong University, Dalian, China; Liaoning Geology Engineering Vocational College, Dandong, China*). **RELATIONSHIP BETWEEN MICRO-STRUCTURES AND WATER SOLUBILITY OF THE MECHANICALLY ACTIVATED PHOSPHATE ORE.**
- 14:50** S.A. Chizhik, A.A. Sidelnikov, B.A. Zakharov, E.V. Boldyreva (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **FOLLOWING THE KINETICS OF SOLID STATE PHOTOCHEMICAL REACTION BY MEASUREMENT OF MACROSCOPIC MECHANICAL RESPONSE IN CRYSTALS.**
- 15:10** D.V. Korabel'nikov, Yu.N. Zhuravlev (*Kemerovo State University, Kemerovo, Russia*). **PRESSURE EFFECT ON THE STRUCTURE AND ELECTRONIC PROPERTIES OF OXYANIONIC CRYSTALS FROM FIRST PRINCIPLES.**
- 15:30** F.M. Noskov, L.I. Kveglis (*Siberian Federal University, Krasnoyarsk, Russia*). **DESCRIPTION OF POLYMORPHOUS TRANSFORMATIONS IN METALS ON THE BASIS OF THE CLUSTER MODEL OF STRUCTURAL FORMATION.**
- 15:50** E.I. Golovneva, I.F. Golovnev (*Khristianovich Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia*). **MOLECULAR DYNAMICS RESEARCH OF NANO-SIZED ROD FAILURE AT THE CYCLIC LOAD.**
- 16:10** **Coffee Break. Poster Session I**
- 16:40** G.A. Pribytkov, A.V. Baranovskiy, V.V. Korthova, M.G. Krinitcyn (*Institute of Strength Physics and Materials Science, Tomsk, Russia; National Research Tomsk Polytechnic University, Tomsk, Russia*). **EFFECT OF PROCESSING METAL-MATRIX SHS POWDERS IN A PLANETARY MILL ON DISPERSION, MORPHOLOGY, PHASE COMPOSITION AND FINE PHASE STRUCTURE.**
- 17:00** S.A. Petrova, T.I. Filinkova (*Institute of Metallurgy UB RAS, Ekaterinburg, Russia*). **EFFECT OF MECHANOACTIVATION ON THE HIGH-TEMPERATURE BEHAVIOUR OF THE SYSTEMS WITH METASTABLE PHASES.**

- 17:20** G.R. Karagedov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **EFFECT OF MECHANOCHEMICAL TREATMENT ON $\text{Al}(\text{OH})_3 \rightarrow \alpha\text{-Al}_2\text{O}_3$ TRANSFORMATION.**
- 17:40** V.A. Volkov, A.A. Chulkina, A.I. Ulyanov, I.A. Elkin (*Udmurt Federal Research Center of the Ural Branch of RAS, Izhevsk, Russia*). **MECHANISMS OF FORMATION OF PHASES AT MECHANOSYNTHESIS OF Fe-C ALLOYS.**

Section II

Chairwoman: Prof. Franciska Emmerling

- 14:30** V.P. Pilyugin, T.P. Tolmachev, A.I. Ancharov, Yu.V. Solov'eva (*M.N. Mikheev Institute of Metal Physics UB RAS, Ekaterinburg, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Tomsk State University of Architecture and Building, Tomsk, Russia*). **MECHANICAL ALLOYING BY HIGH PRESSURE TORSION OF BINARY SYSTEMS BASED ON FCC METALS.**
- 14:50** V.A. Volkov, A.I. Ulyanov, A.A. Chulkina, A.V. Zagainov (*Udmurt Federal Research Center of the Ural Branch of RAS, Izhevsk, Russia*). **REDISTRIBUTION OF ALLOYING ELEMENTS (Cr, Ni) IN MECHANOSYNTHESIZED ALLOYS OF THE COMPOSITION OF CEMENTITE.**
- 15:10** K. Yazovskikh, S.F. Lomayeva, A.A. Shakov, G.N. Konygin, O.M. Nemtsova (*Physical-Technical Institute UB RAS, Izhevsk, Russia*). **SURFACE MODIFICATION OF Fe-Si-Al ALLOY UNDER WET BALL MILLING.**
- 15:30** M.A. Khimich, M.A. Korchagin, Yu.P. Sharkeev, E.A. Ibragimov, V.V. Fedorov, Zh.G. Kovalevskaya (*National Research Tomsk State University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; National Research Tomsk Polytechnic University, Russia*). **MECHANICALLY ALLOYED Ti-Nb ALLOYS FOR SELECTIVE LASER MELTING OF THE PRODUCTS FOR MEDICAL APPLICATIONS.**

- 15:50** A.V. Sobachkin, M.V. Loginova, A.A. Sitnikov, V.I. Yakovlev, V.Yu. Filimonov, S.G. Ivanov, A.Yu. Myasnikov, A.V. Gradoboev (*Polzunov Altai State Technical University, Barnaul, Russia; National Research Tomsk Polytechnic University, Tomsk, Russia*). **PHASE FORMATION IN MECHANICALLY ACTIVATED GAMMA-IRRADIATED Ti + Al MIXTURE DURING HIGH-TEMPERATURE SYNTHESIS BY INDUCTION HEATING.**
- 16:10** **Coffee Break. Poster Session I**
- 16:40** M.A. Eryomina, S.F. Lomayeva (*Udmurt Federal Research Center of the Ural Branch of RAS, Izhevsk, Russia*). **MECHANOSYNTHESIS OF TiC(NbC) – Cu COMPOSITES USING LIQUID HYDROCARBONS.**
- 17:00** G.A. Buzanov, K.Yu. Zhizhin (*Kurnakov Institute of General and Inorganic Chemistry RAS, Moscow, Russia*). **MECHANOCHEMICAL PRECURSOR TREATMENT FOR THE SYNTHESIS OF OVERSTOICHIOMETRIC SPINELS IN THE Li-Mn-O AND Li-Mg-Mn-O SYSTEMS.**
- 17:20** Yu.A. Ivanova, L.A. Isupova, A.V. Nartova (*Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*). **THE EFFECT OF MECHANOCHEMICAL ACTIVATION ON THE PHASE COMPOSITION, STRUCTURE AND CATALYTIC PROPERTIES OF Sr₂TiO₄.**
- 17:40** T.A. Feduschak, M.A. Uymin, M.A. Morozov, A.S. Akimov, E.V. Mikubaeva, A.V. Vosmerikov, V.M. Kogan (*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia; Institute of Metal Physics UB RAS, Ekaterinburg, Russia; N.D. Zelinsky Institute of Organic Chemistry RAS, Moscow, Russia*). **SYNTHESIS AND CATALYTIC PROPERTIES OF BULK MOLYBDENUM SULFIDE CATALYSTS PREPARED BY MECHANICAL MILLING MOLYBDENITE IN THE PRESENCE OF SMALL AMOUNTS OF LIQUIDS.**
- 18:30** **Welcome Reception at the restaurant «Kukuruzza»**
(Nikolaev str., 12, 2nd floor)

Section II

Chairman: Prof. Dmitry S. Rybin

- 9:00** A.M. Jorge Jr., R.A. Silva, B.C.M. Terra, G. Zepon, D.R. Leiva, T.T. Ishikawa, C.S. Kiminami, W.J. Botta (*Federal University of São Carlos, Department of Materials Engineering, São Carlos, Brazil*). **EFFECTS OF HIGH-ENERGY BALL MILLING AND REACTIVE MILLING ON THE SYNTHESIS OF Mg-Co AND Mg-FeTi COMPOSITES AND Ti-Nb ALLOYS AND THEIR HYDROGEN STORAGE PROPERTIES.**
- 9:30** I.A. Bataev (*Novosibirsk State Technical University, Novosibirsk, Russia*). **STRUCTURE OF MIXING ZONES AT THE INTERFACE OF EXPLOSIVELY WELDED MATERIALS.**
- 10:00** M.A. Korchagin, Sh.E. Gabdrashova, D.V. Dudina, B.B. Bokhonov, N.V. Bulina, V.L. Kuznetsov, A.V. Ishchenko (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia; National Research Tomsk State University, Tomsk, Russia; Al-Farabi Kazakh National University, Almaty, Kazakhstan; Lavrentyev Institute of Hydrodynamics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Borekov Institute of Catalysis SB RAS, Novosibirsk, Russia*). **INTERACTION OF TITANIUM WITH MULTI-WALLED CARBON NANOTUBES DURING BALL MILLING, HEAT TREATMENT AND SPARK PLASMA SINTERING.**
- 10:30** A.V. Ukhina, D.V. Dudina, B.B. Bokhonov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Lavrentyev Institute of Hydrodynamics SB RAS, Novosibirsk, Russia*). **MORPHOLOGICAL AND PHASE CHANGES DURING SPARK PLASMA SINTERING OF MECHANICALLY MILLED METAL-CARBON MIXTURES.**
- 10:50** L.I. Shevtsova, M.A. Korchagin, M.A. Esikov, D.A. Nemolochnov (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **FABRICATION OF Ni₃Al+B MATERIAL BY MECHANICAL ACTIVATION AND SPARK PLASMA SINTERING.**
- 11:10** **Coffee Break. Poster Session II**

Section IV

Chairman: Prof. Nikolay F. Uvarov

- 9:00 A.N. Streletskij, I.V. Kolbanev, O.S. Morozova (*Institute of Chemical Physics RAS, Moscow, Russia*). **MECHANICALLY ACTIVATED COMPOSITES BASED ON TRANSITION METAL OXIDES: DEFECT STRUCTURE, REACTIVITY, APPLICATION POSSIBILITIES.**
- 9:30 V.G. Bamburov, N.N. Maslov, K.V. Nefedova, V.V. Demidov, S.Yu. Solomenzev, V.D. Zhuravlev (*Institute of Solid State Chemistry UB RAS, Yekaterinburg, Russia; Limited company "KATODNYE MATERIALY", Novosibirsk, Russia*). **EFFECT OF PRECURSORS NiMnCoO_x ON THE MECHANOCHEMICAL SYNTHESIS OF CATHODE MATERIAL LiNi_{1/3}Mn_{1/3}Co_{1/3}O₂.**
- 10:00 N.V. Kosova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **NEW SODIUM-CONTAINING CATHODE MATERIALS: MECHANOCHEMICAL SYNTHESIS AND ELECTROCHEMICAL PROPERTIES.**
- 10:30 D.O. Rezepova, N.V. Kosova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **THE STRUCTURE AND ELECTROCHEMISTRY OF THE MIXED SODIUM-LITHIUM VANADIUM FLUOROPHOSPHATES Na_{3-y}Li_yV₂(PO₄)₂F₃.**
- 10:50 A.Y. Galashev, K.A. Ivanichkina (*Institute of High-Temperature Electrochemistry UB RAS, Yekaterinburg, Russia*). **COMPUTER DESIGN AND TESTING OF A SILICENE ANODE FOR A LITHIUM-ION BATTERY.**
- 11:10 **Coffee Break. Poster Session II**

Section III

Chairman: Prof. Oleg I. Lomovsky

- 11:30 B.N. Kuznetsov, V.I. Sharypov, S.V. Baryshnikov, N.G. Beregovtsova, A.V. Pesunov, A.S. Kazachenko (*Institute of Chemistry and Chemical Technology FRC KSC SB RAS, Krasnoyarsk, Russia*). **CATALYTIC CONVERSION OF MECHANICALLY ACTIVATED ASPEN WOOD TO LIQUID BIOFUELS IN SUPERCRITICAL ETHANOL.**
- 11:50 T. Akopova (*Enikolopov Institute of Synthetic Polymeric Materials RAS, Moscow, Russia*). **SYNTHESIS OF POLYSACCHARIDES DERIVATIVES THROUGH SOLID-STATE REACTIVE EXTRUSION.**

12:10 G. Cagnetta, J. Huang, G. Yu (*State Key Joint Laboratory of Environment Simulation and Pollution Control, Beijing Key Laboratory of Emerging Organic Contaminants Control, Key Laboratory of Solid Waste Management and Environment Safety, School of Environment, POPs Research Center, Tsinghua University, Beijing, China*). **A MECHANOCHEMICAL WASTE-TO-MATERIALS APPROACH FOR HALOGEN RECOVERY FROM HALOGENATED POLLUTANTS.**

12:30 O.I. Pokrovsky, O.O. Parenago, A.M. Vorobei, N.G. Bazarnova, I.V. Mikushina (*Kurnakov Institute of General and Inorganic Chemistry, Moscow, Russia; Altai State University, Barnaul, Russia*). **COMPARISON OF MICRONIZATION OF MEDICINAL SUBSTANCES BY METHODS OF MECHANOCHEMISTRY AND SUPERCRITICAL FLUID TECHNOLOGIES.**

12:50 T.S. Demina (*Institute for Regenerative Medicine, Sechenov University, Moscow, Russia; Enikolopov Institute of Synthetic Polymeric Materials RAS, Moscow, Russia*). **SOLID-STATE MODIFIED CHITOSAN FOR REGENERATIVE MEDICINE.**

13:10 T.P. Poleyko (*ABEX Co., Novosibirsk, Russia*). **ABOUT THE ABEX COMPANY'S PRODUCTS AND TECHNOLOGIES.**

13:30 Lunch Break

Section IV

Chairman: Prof. Andrey N. Streletskii

11:30 E.I. Patsera, V.V. Kurbatkina, E.A. Levashov, Yu.Yu. Kaplanskii, A.V. Samokhin (*National University of Science and Technology "MISIS", Moscow, Russia; Baikov Institute of Metallurgy and Materials Science, Moscow, Russia*). **MA SHS TECHNOLOGY FOR SPHERICAL POWDERS OF A HEAT PROOF NiAl BASED ALLOY PRODUCTION FOR ADDITIVE TECHNOLOGIES.**

11:50 A.I. Titkov, O.A. Logutenko, Yu.M. Yukhin, N.Z. Lyakhov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **SYNTHESIS OF NANO- AND MICRON-SIZED METAL POWDERS FOR ADDITIVE TECHNOLOGIES.**

12:10 A.A. Shutilov, G.A. Zenkovets (*Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*). **DESIGN OF NEW NANOSTRUCTURED THERMOSTABLE TiO₂ OF ANATASE STRUCTURE DOPED WITH ALUMINA.**

12:30 D.A. Sidorenko, P.A. Loginov, E.A. Levashov, L. Mishnaevsky Jr. (*National University of Science and Technology "MISIS", Moscow, Russia; Department of Wind Energy, Technical University of Denmark, Roskilde, Denmark*). **HYBRID NANOCOMPOSITES FOR EXTRA WEAR RESISTANT DIAMOND CUTTING TOOLS.**

12:50 P.A. Loginov, D.A. Sidorenko, S. Vorotylo, E.A. Levashov (*The National University of Science and Technology "MISIS, Moscow, Russia*). **NANOCRYSTALLINE MECHANICALLY ALLOYED Fe-Co-Ni BINDER WITH HIGH STRENGTH AND WEAR RESISTANCE FOR DIAMOND TOOLS.**

13:10 E.F. Sutormina, L.A. Isupova, I.Yu. Molina (*Boreskov Institute of Catalysis, Novosibirsk, Russia*). **FORMATION AND PROPERTIES OF Mn-SUBSTITUTED CORDIERITES UNDER MECHANOCHEMICAL TREATMENT.**

13:30 Lunch Break

Section III

Chairman: Prof. Boris N. Kuznetsov

14:30 G.B. Abdikerimova, A.L. Bychkov, S.S. Khayrulin, F.A. Murzin, N.E. Russkikh, E.I. Ryabchikova, Wei Xinyu (*L.N. Gumilyov Eurasian National University, Astana, Kazakhstan; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia, A.P. Ershov Institute of Informatics Systems SB RAS, Novosibirsk, Russia; Institute of Molecular Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia; Heilongjiang University, Harbin, China*). **PROCESSING IMAGES OBTAINED BY THE TRANSMISSION ELECTRON MICROSCOPY.**

14:50 Xiangli Long, Qingyan Liang, A.A. Politov, Yansheng Li, Meiling Chen, Hong Gao (*School of Material Science and Engineering, Dalian Jiaotong University, Dalian, Liaoning, China; Guangxi Yuchai Machinery Parts Manufacturing Co., Ltd., Guangxi, China; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **ACCELERATED DECOMPOSITION OF DIOSCOREA SAPONIN BY MECHANICAL ACTIVATION.**

15:10 M.B. Musaev, M.S. Khalikov, I.A. Arkhipov (*Scriabin All-Russian Scientific Research Institute of Fundamental and Applied Parasitology of Animals and Plants, Moscow, Russia; Limited Liability Company "Research & Development Center Agrovetzashchita", Moscow, Russia*). **OBTAINING AND PROPERTIES OF THE INNOVATIVE PREPARATION FOR**

TREATING FASCIOLIASIS.

15:30 N.G. Vlasenko, A.A. Malyuga, S.S. Khalikov (*Siberian Research Institute of Soil Management and Chemicalization of Agriculture SFSCA RAS, Krasnoobsk, Novosibirsk region, Russia*; A.N. Nesmeyanov Institute of Organoelement Compounds RAS, Moscow, Russia). **A NEW APPROACH IN THE DEVELOPMENT OF COMPLEX PREPARATIONS BASED ON BENZIMIDAZOLE DERIVATIVES FOR THE PROTECTION OF PLANTS.**

15:50 E.S. Meteleva, V.I. Evseenko, A.V. Dushkin, N.G. Vlasenko, O.I. Teplyakova, S.S. Khalikov, N.E. Polyakov, O.Yu. Selyutina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*; Siberian Research Institute of Agriculture and Chemicalization of Agriculture of the SB RAS, Krasnoobsk, Russia; A.N. Nesmeyanov Institute of Organoelement Compounds RAS, Moscow, Russia; Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia). **MECHANO-CHEMICAL PREPARATION OF REMEDY FOR PROTECTION OF GRAIN CROPS WITH INCREASED EFFICIENCY.**

16:10 **Coffee Break. Poster Session II**

16:40 A.R. Beisenbayev, L.T. Tatayeva, A.N. Zhabayeva, S.M. Adekenov (*JSC International Research and Production Holding «Phytochemistry», Karaganda, Kazakhstan*). **WATER SOLUBILITY ENHANCEMENT OF PINOSTROBIN OXIME BY MECHANO-CHEMICAL TREATMENT.**

17:00 A.N. Manin, K.V. Drozd, G.L. Perlovich G.A. Krestov (*Institute of Solution Chemistry RAS, Ivanovo, Russia*). **SEARCHING FOR 2- AND 4-HYDROXYBENZAMIDE COCRYSTALS POLYMORPHIC FORMS BY MECHANO-CHEMICAL METHOD.**

17:20 N.P. Bgatova, Yi.S. Taskaeva, V.V. Makarova, A.O. Solovjeva, A.P. Lykov, V.P. Isupov, I.A. Borodulina, S.S. Shatskaya (*Research Institute of Clinical and Experimental Lymphology – Branch of Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia*; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia). **THE USE OF MECHANICALLY ACTIVATED LITHIUM CARBONATE TO INDUCE CANCER CELL DEATH.**

17:40 F.K. Gorbunov, V.A. Poluboyarov, L.K. Berdnikova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **THE INFLUENCE OF SILICON CARBIDE OBTAINED BY THERMAL DECOMPOSITION OF MONOSILANE ON THE PROPERTIES OF**

CAST POLYURETHANE.

Section IV

Chairman: Prof. Alexander P. Nemudry

14:30 S.F. Tikhov, V.A. Sadykov, D.V. Dudina, O.I. Lomovsky, V.E. Romanenkov, Ya.Ya. Piatsiushyk (*Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia; Lavrentyev Institute of Hydrodynamics SB RAS, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Belarusian National Technical University, Minsk, Belarus; Institute of Powder Metallurgy, NAS of Belarus, Minsk, Belarus*). **CONSTRUCTION OF CERAMOMETAL POROUS CATALYSTS AND SUPPORTS FROM POWDERED ALLOYS PREPARED BY THE MECHANOCHEMICAL METHOD.**

14:50 N.F. Uvarov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **MECHANICAL STRAINS EFFECTS IN SOLID ELECTROLYTES.**

15:10 P.I. Skriabin, V.A. Sadykov, Yu.N. Bepalko, N. Ereemeev, T.A. Krieger, Yu.A. Chesalov, A.S. Ulihin, N.F. Uvarov (*Boreskov Institute of Catalysis, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **SYNTHESIS OF PROTONIC CONDUCTORS BY MECHANOCHEMICAL ACTIVATIONS.**

15:30 V.G. Ponomareva, G.V. Lavrova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **NEW TYPE OF COMPOSITE PROTON ELECTROLYTES SYNTHESIZED BY MECHANICAL ACTIVATION.**

15:50 N.P. Lazareva, I.N. Bagryantseva, V.G. Ponomareva (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia*). **PROTON-CONDUCTIVE POLYMER MEMBRANES BASED ON $C_6H_2PO_4$.**

16:10 **Coffee Break. Poster Session II**

16:40 A.A. Gaydamaka, V.G. Ponomareva, I.N. Bagryantseva (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **PROTON ELECTROLYTES IN THE SYSTEM OF HYDROPHOSPHATES OF RUBIDIUM, OBTAINED WITH THE HELP OF MECHANOCHEMICAL METHODS.**

17:00 V.V. Zyryanov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **CREATION OF THIN OXYGEN MEMBRANES FOR PURE DISTRIBUTED MULTIGENERATION.**

17:20 S.A. Uspenskii, P.A. Khaptakhanova, T.S. Kurkin, A. Zaboronok, A.N. Zelenetskii, M.A. Selyanin, S.Yu. Taskaev (*MARTIN'EX International Research and Development Center, Moscow, Russia; Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Enikolopov Institute of Synthetic Polymeric Materials RAS, Moscow, Russia; Department of Neurosurgery, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan*). **BORON NANOPARTICLES PRODUCTION BY ULTRASONIC CAVITATION.**

17:40 N.V. Bulina, M.V. Chaikina, I.Yu. Prosanov, S.V. Makarova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **MECHANO-CHEMICAL SYNTHESIS AND CHARACTERIZATION OF Sr-SUBSTITUTED HYDROXYAPATITE.**

18:30 Meeting of the Advisory Committee

Thursday, June 28, 2018

Section III

Chairman: Prof. Tatyana Akopova

9:00 Weike Su, Jingbo Yu, Zhijiang Jiang (*National Engineering Research Center for Process Development of Active Pharmaceutical Ingredients, Collaborative Innovation Center of Yangtze River Delta Region Green Pharmaceuticals, Zhejiang University of Technology, Hangzhou, P.R. China*). **ORGANIC SYNTHESIS BY MECHANO-CHEMISTRY.**

9:30 A.V. Dushkin, T.G. Tolstikova, M.I. Khvostov, N.E. Polyakov, S.S. Khalikov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia; A.N. Nesmeyanov Institute of Organoelement Compounds of RAS, Moscow, Russia*). **MECHANO-CHEMICAL PREPARATION OF SUPRAMOLECULE'S DELIVERY SYSTEMS FOR BIOLOGY ACTIVE MOLECULES.**

10:00 S.S. Khalikov, A.V. Dushkin, Yu.Ya. Chistyachenko, A.I. Varlamova, I.A. Arkhipov (*A.N. Nesmeyanov Institute of Organoelement Compounds RAS, Moscow, Russia; Institute of Solid State Chemistry and*

Mechanochemistry SB RAS, Novosibirsk, Russia; Scriabin All-Russian Scientific Research Institute of Fundamental and Applied Parasitology of Animals and Plants, Moscow, Russia). **MECHANOCHEMICAL METHOD OF OBTAINING ANTHELMINTIC DRUGS WITH INCREASED ACTIVITY.**

10:20 M.V. Khvostov, T.G. Tolstikova, A.V. Dushkin, N.E. Polyakov, E.S. Meteleva, Y.S. Chistyachenko, S.A. Borisov, A.A. Chernonosov (*N.N. Vorozhtsov Institute of Organic Chemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia; Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia*). **STUDY OF PHARMACOLOGICAL ACTIVITY OF SUPRAMOLECULAR COMPLEXES OF DRUGS WITH PLANT METABOLITES OBTAINED BY MECHANOCHEMICAL METHOD.**

10:40 L.P. Suntsova, A.V. Dushkin, V.I. Evseenko, E.S. Meteleva, N.E. Polyakov, A.A. Shlotgauer (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*). **MECHANOCHEMICAL MODIFICATION OF FLAVONOIDS BY OBTAINING SUPRAMOLECULAR COMPLEXES WITH POLYSACCHARIDE ARABINOGALACTAN AND GLYCYRRHIZIC ACID DISODIUM SALT FOR INCREASING THEIR SOLUBILITY AND MEMBRANE PERMEABILITY.**

11:00 Yu.S. Chistyachenko, E.S. Meteleva, D.F. Avgustinovich, G.B. Vishnivetskaya, A.V. Katokhin, M.Yu. Pakharukova, M.V. Khvostov, A.V. Dushkin, V.A. Mordvinov, T.G. Tolstikova, N.E. Polyakov, N.Z. Lyakhov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Institute of Cytology and Genetics, Novosibirsk, Russia; N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*). **MECHANOCHEMICAL SYNTHESIS OF SOLID COMPOSITIONS OF PRAZQUANTEL AND ALBENDAZOLE FOR IMPROVEMENT OF THEIR ANTI-OPISTHORCHOSIS ACTION.**

11:20 Coffee Break. Poster Session III

Section V

Chairman: Prof. Gao Hong

- 9:00** Hongbo Yu, A.A. Politov, Hong Gao, N.V. Bulina (*School of Material Science and Engineering, Dalian Jiaotong University, Dalian, Liaoning, China; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **COMPARISON STUDIES OF LABORATORY AND INDUSTRIAL MILLS AND SCALE APPLICATION OF LABORATORY ACHIEVEMENTS.**
- 9:30** N. Khan, O. Tyumentseva, T. Ketegenov, A. Karagulanova (*Al-Farabi Kazakh National University, Almaty, Kazakhstan*). **APPLICATION OF MAN-MADE WASTES AS FILLERS FOR POLYMER MATERIALS.**
- 10:00** Chenglong Zhang, Lili Zhuang, Jianfeng Bai, Wenyi Yuan, Jingwei Wang (*WEEE Research Center of Shanghai Polytechnic University, Shanghai, China; Shanghai Collaborative Innovation Center for WEEE Recycling, Shanghai, China*). **RECOVERING OF SOLID WASTE BEARING LEAD OR ZINC BY MECHANO-CHEMICAL EXTRACTION IN ALKALINE SOLUTION.**
- 10:20** E.G. Komarova, M.B. Sedelnikova, M.V. Chaikina, Ya.O. Ivashenko, Yu.P. Sharkeev (*Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; National Research Tomsk State University, Tomsk, Russia*). **REGULARITIES IN THE GROWTH OF BIOCOATINGS WHEN DEPOSITED BY THE MICROARC OXIDATION OF MECHANOCHEMICALLY SYNTHESIZED STRONTIUM-SILICON-SUBSTITUTED HYDROXYAPATITE.**
- 10:40** N.V. Yudina, N.V. Savelyeva, O.I. Lomovsky (*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANO-CHEMICAL ACTIVATION OF HUMIC SYSTEMS.**
- 11:00** O.N. Dabizha, T.P. Pateyuk (*ZabIZHT IrGUPS, Chita, Russia; ZabGU, Chita, Russia*). **KINETIC PARAMETERS OF DEHYDRATION DURING MECHANOSYNTHESIS IN THE SYSTEM «ACID SALT – ZEOLITE».**
- 11:20** **Coffee Break. Poster Session III**

Section III

Chairman: Prof. Weike Su

- 11:40** I.O. Lomovskiy, L.A. Makeeva (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **EFFECT OF MECHANOCHEMICAL PROCESSING ON THE CELLULAR STRUCTURE AND EXTRACTION CHARACTERISTICS OF PLANT RAW MATERIALS.**
- 12:00** A.L. Bychkov, V.A. Bukhtoyarov, O.I. Lomovsky (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **EFFECT OF LIGNOCELLULOSIC SUBSTRATE ON THE STABILITY OF CELLULOLYTIC ENZYMES DURING JOINT MECHANICAL TREATMENT.**
- 12:20** N.A. Pankrushina, O.I. Salnikova, O.I. Lomovsky (*N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **CHEMICAL CONSTITUENT OF GALEGA ORIENTALIS WATER SOLUBLE SUBSTANCES PRODUCED BY MECHANOCHEMICAL PROCEDURE.**
- 12:40** K.B. Rakhmetali, N.A. Pankrushina, G.Zh. Baisalova (*Novosibirsk State University, Novosibirsk, Russia; N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia; L.N. Gumilyov Eurasian National University, Astana, Kazakhstan*). **MECHANOCHEMICAL EXTRACTION OF PSORALEA DRUPACEA SECONDARY METABOLITES.**
- 13:00** V.V. Libanov, A.A. Kapustina, Z.N. Puzyrkov, N.P. Shapkin (*Far Eastern Federal University, Vladivostok, Russia*). **MECHANOCHEMICAL SYNTHESIS OF ELEMENTORGANOSILOXANES.**
- 13:20** **Lunch Break**

Section V

Chairman: Prof. Dina Dudina

- 11:40** A.I. Ancharov, G.N. Grachev, T.F. Grigoreva, A.A. Starostenko (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Institute of Laser Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **MECHANOCHEMICAL AND RADIATION TECHNOLOGIES FOR**

OBTAINING NEW REFRACTORY MATERIALS.

- 12:00** T.A. Zimogliadova, A.A. Bataev, H. Saage, E.A. Drobyaz (*Novosibirsk State Technical University, Novosibirsk, Russia; University of Applied Sciences, Landshut, Germany*). **STRUCTURE AND PROPERTIES OF NICKEL-BASED SELF-FLUXING COATINGS, REINFORCED BY HARD REFRACTORY PARTICLES WITH HIGH NB CONTENT.**
- 12:20** N.Yu. Cherkasova, S.V. Veselov, N.S. Stukacheva, R.I. Kuzmin (*Novosibirsk State Technical University, Novosibirsk, Russia*). **INFLUENCE OF Al_2O_3 -SLURRIES DISPERSION MODES ON CERAMIC SINTERING BEHAVIOUR.**
- 12:40** B.A. Zakharov, A.A. Matvienko, E.V. Boldyreva (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **TOWARDS UNDERSTANDING MECHANICAL EFFECTS IN SOLIDS: APPLICATION OF HIGH PRESSURE STUDIES.**
- 13:00** K.V. Mishchenko, Yu.M. Yukhin (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **USE OF MECHANICAL ACTIVATION TO PRODUCE BISMUTH SOLUTIONS.**
- 13:20** **Lunch Break**

Section III

Chairman: Prof. Elena Boldyreva

- 14:30** D.S. Rybin, G.N. Konygin (*Physical-Technical Institute of the Udmurt Federal Research Center of the Ural Branch of the RAS, Izhevsk, Russia*). **CORRELATION METHODS OF ANALYSIS IN STUDIES OF MECHANOCHEMICAL REACTIONS.**
- 14:50** S. Mamylov, D. Orlov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOCHEMICAL INTERACTION OF FLAVONOID QUERCETIN AND CARBOHYDRATE GLUCOSE. GLYCOSIDE BOND APPEARANCE BY IRS-DATA.**
- 15:10** T.S. Skripkina, A.L. Bychkov, O.I. Lomovsky (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOCHEMICAL MODIFICATION OF BROWN COAL HUMIC ACIDS FOR COMPLEX SORBENTS OF HEAVY METALS.**

- 15:30 V.A. Poluboyarov, Z.A. Korotaeva, A.A. Zhdanok (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOCHEMISTRY FOR PRODUCING NANOCOMPOSITES BASED ON POLYETHYLENE AND POLYAMIDE.**
- 15:50 V.V. Aksenov, A.A. Politov (*Institute of Economics of Latvian Academy of Science, Riga, Latvia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **INFLUENCE OF IR RADIATION AND MECHANICAL TREATMENT OF CEREAL GRAIN ON EFFICIENCY OF MECHANO-ENZYMATIC CONVERSION.**
- 16:10 **Coffee Break. Poster Session III**
- 16:40 A.P. Burdukov, O.I. Lomovsky, G.V. Chernova (*Kutateladze Institute of Thermophysics SB RAS, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **USE OF WASTE OF MECHANOCHEMICAL PROCESSING OF LIGNIN-CELLULOSE RAW MATERIAL FOR ENVIRONMENTALLY SAFE POWER ENGINEERING.**
- 17:00 A.V. Kuznetsov, A.P. Burdukov, E.B. Butakov (*Kutateladze Institute of Thermophysics SB RAS, Novosibirsk, Russia*). **STUDIES OF THE KINETICS OF THERMAL DECOMPOSITION AND COMBUSTION OF MECHANICALLY ACTIVATED MICROGRINDING COALS.**

Section V

Chairman: Prof. Tlek Ketegenov

- 14:30 A. Vasilevich, O. Baklanova, A. Lavrenov (*Institute of Hydrocarbons Processing SB RAS, Omsk, Russia*). **MECHANOCHEMICAL SYNTHESIS OF FINE CARBON COMPOSITE CONTAINING Mo₂C/C: NEW APPROACH FOR THE HYDRODESULFURIZATION CATALYSTS PREPARATION.**
- 14:50 A.P. Burdukov, E.B. Butakov, M.Yu. Chernetskiy, A.V. Kuznetsov (*Kutateladze Institute of Thermophysics SB RAS, Novosibirsk, Russia*). **EFFECT OF THE INTENSIFICATION OF MECHANICAL TREATMENT OF COAL ON THE SLAGGING.**
- 15:10 F.E. Safarov, D.V. Karazeev, S.A. Vezhnin, A.G. Telin (*LLC «Ufa Scientific and Technical Center», Ufa, Russia*). **MECHANOCHEMICAL TRANSFORMATIONS OF POLYMERS DURING FILTRATION IN POROUS MEDIA AND GAP STRUCTURES AS A BASIS OF THE SELECTIVITY OF TECHNOLOGIES FOR LEVELING OF THE**

INJECTIVITY PROFILE.

15:30 O.N. Sidelnikova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **ESTIMATION OF THE SPECIFIC SURFACE AREA OF THE FRAME BULK POROUS MATERIAL (WITH/WITHOUT SURFACE NANOLAYER) HAVING STRICT ORDERED GEOMETRICAL PARAMETERS.**

15:50 D.V. Gorbachev (*Tomsk Polytechnical University, Tomsk, Russia*). **HIGHLY CONCENTRATED BINDING SUSPENSIONS AS A CONVENIENT WAY OF SHAPING MECHANOCHEMICALLY SYNTHESIZED CERAMIC MATERIALS.**

16:10 **Coffee Break. Poster Session III**

16:40 Chunfeng Wang, Qingyan Liang, Guilin Liu, Meiling Chen, Hong Gao (*School of Material Science and Engineering, Dalian Jiaotong University, Dalian, China; Guangxi Yuchai Machinery Co., Ltd., China*). **IMPROVING OF EUTECTIC STRUCTURES AND STRENGTH PROPERTY OF HT250 GRAY CAST IRON WITH MODIFIED FINE SiC PARTICLES.**

17:00 V.A. Poluboyarov, Z.A. Korotaeva, A.A. Zhdanok (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MODIFICATION OF GRAY CAST IRON WITH EFFECTIVE COMPOSITIONS PRODUCED BY MECHANOCHEMICAL METHOD.**

17:30 - 18:30 **General discussion. End of the Conference**

18:30 **Conference Banquet at the restaurant “Teplitsa”
(Nikolaev str., 12, 3d floor)**

Tuesday, June 26, 2018

Poster Session I

1. E.G. Avvakumov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **ABOUT TWO REGIMES OF MECHANICAL ACTIVATION.**
2. M.V. Chaikina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **WAVE MODEL OF ENERGY TRANSFORMATION IN MECHANOCHEMICAL PROCESSES.**
3. Ch. Tantardini (*Novosibirsk State University, Novosibirsk, Russia; Italy*). **NEW INSIGHTS IN BADER'S THEORY.**
4. Y.V. Auchynnikau, T.F. Grigoreva, V.A. Liopo, Y.I. Eisimont (*Yanka Kupala State University of Grodno, Grodno, Belarus; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **CHARGING ACTIVITY OF MECHANICALLY ACTIVATED PARTICLES.**
5. A.A. Politov, Lishan Van, K.B. Gerasimov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **INFLUENCE OF PRELIMINARY MECHANICAL TREATMENT, HETEROGENEOUS CATALYTIC ADDITIVES AND IONISING RADIATION ON THERMAL DECOMPOSITION OF POTASSIUM PERSULPHATE $K_2S_2O_8$.**
6. O.A. Shkoda, V.G. Salamatov (*Tomsk Scientific Center SB RAS, Tomsk, Russia*). **THE INFLUENCE OF SEPARATE MECHANICAL ACTIVATION ON THERMAL EXPLOSION IN THE POWDER MIXTURE OF NIOBIUM-SILICON.**
7. I.A. Ditenberg, M.A. Korchagin, A.N. Tyumentsev (*Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MULTILAYERED Me-Al BASED COMPOSITES OBTAINED BY MECHANICAL ACTIVATION AND SUBSEQUENT CONSOLIDATION BY TORSION UNDER PRESSURE.**
8. I.A. Ditenberg, M.A. Korchagin, I.V. Smirnov, K.V. Grinyaev, A.S. Tsverova, I.I. Suhanov, A.N. Tyumentsev (*Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **FEATURES OF MICROSTRUCTURE AND MICROHARDNESS OF MULTICOMPONENT**

PRECURSORS BASED ON REFRACTORY METALS POWDERS AFTER MECHANICAL ACTIVATION OF DIFFERENT DURATION.

9. I.I. Gainutdinov, A.P. Nemudry, I.L. Zilberberg (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Borekov Institute of Catalysis SB RAS, Novosibirsk, Russia*). **THE INFLUENCE OF A- AND B-CATION SUBSTITUTION ON ELECTRONIC STRUCTURE OF SrFeO₃ AND SrCoO₃.**
10. P.Yu. Tyapkin, S.A. Petrov, A.P. Chernyshev, K.B. Gerasimov, N.F. Uvarov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **IMPACT OF THE MESOPOROUS MATRIX ON THE THERMAL DECOMPOSITION OF IRON(III) OXALATE.**
11. S.A. Kovaliova, P.A. Vitiaz, V.I. Zhornik, T.Yu. Kiseleva, S.V. Vosmerikov, E.T. Devyatkina, T.F. Grigoreva, N.Z. Lyakhov (*Joint Institute of Mechanical Engineering, Minsk, Belarus; M.V. Lomonosov Moscow State University, Department of Physics, Moscow, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOSYNTHESIS OF MAGNETO-ABRASIVE POWDER COMPOSITES IN THE EXOTHERMIC MIXTURES Fe₂O₃-Fe-Me.**
12. T.Yu. Kiseleva, E. Levin, A.A. Novakova, A. Ilyushin, T.F. Grigoreva, V. Šepelàk (*M.V. Lomonosov Moscow State University, Department of Physics, Moscow, Russia; M.V. Lomonosov Moscow State University, Department of Chemistry, Moscow, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Institute of Nanotechnology, Karlsruhe Institute of Technology, Karlsruhe, Germany*). **MECHANOCHEMICAL INTERACTION IN Fe-Ga-In SYSTEM.**
13. M.V. Chaikina, N.V. Bulina, O.B. Vinokurova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOCHEMICAL SYNTHESIS OF APATITE AND OTHER CALCIUM ORTHOPHOSPHATES AS MATERIALS FOR MEDICAL PURPOSES.**
14. S.V. Makarova, N.V. Bulina, M.V. Chaikina (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **CRYSTAL STRUCTURE OF LANTANUM-SILICATE CO-SUBSTITUTED APATITE OBTAINED BY MECHANOCHEMICAL SYNTHESIS.**

15. T.A. Udalova, S.V. Vosmerikov, T.F. Grigoreva, E.T. Devyatkina, N.Z. Lyakhov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia*). **MECHANOCHEMICAL REDUCTION OF GeO_2 AND SiO_2 TO OBTAIN HIGHLY DISPERSED SILICON AND GERMANIUM.**
16. K.A. Kokh, F.Kh. Urakaev (*Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia*). **SYNTHESIS OF MOLYBDENITE FROM ELEMENTS VIA MASHS.**
17. T. Osserov, T. Ketegenov, G. Guseynova, M. Myrzabekova, N. Khan (*Satpaev University, Almaty, Kazakhstan; al-Farabi Kazakh National University, Almaty, Kazakhstan*). **THE USE OF RAMAN SPECTROSCOPY FOR THE IDENTIFICATION OF SODIUM POLYSULPHIDE OBTAINED BY THE MECHANOCHEMICAL METHOD.**
18. V.R. Khusnutdinov, A.V. Loginov, A.I. Aparnev, N.F. Uvarov, Yu.G. Mateyshina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Russia*). **MECHANOCHEMICAL SYNTHESIS OF DOUBLE HYDROXIDES OF TlN AND ALKALI EARTH METALS.**
19. V.R. Khusnutdinov, V.P. Isupov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOCHEMICAL SYNTHESIS OF NANOCOMPOSITES BASED ON Fe_3O_4 AND LAYERED DOUBLE HYDROXIDES.**
20. I.A. Borodulina, V.P. Isupov, N.V. Bulina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **EFFECT OF WATER VAPOR PRESSURE ON THE MECHANOCHEMICAL SYNTHESIS OF GAMMA LITHIUM MONOALUMINATE.**
21. I. Akhmetova, F. Emmerling, M. Wilke, K. Rademann, C. Roth (*BAM – Federal Institute for Materials Research and Testing, Berlin, Germany; Swiss Light Source, Material Science Beamline, Paul Scherrer Institute, Switzerland; Department of Chemistry, Humboldt-Universität zu Berlin, Berlin, Germany; Institute for Chemistry and Biochemistry, Freie Universität Berlin, Berlin, Germany*). **MECHANOCHEMICAL SYNTHESIS OF METAL PHOSPHONATES.**
22. A.A. Gusev, V.P. Isupov, I.P. Raevski, M.A. Malitskaya, S.I. Raevskaya (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Research Institute of Physics and Faculty of*

Physics, Southern Federal University, Rostov-on-Don, Russia). **THE EFFECT OF MECHANOCHEMICAL SYNTHESIS ON COMPOSITIONAL ORDERING AND DIELECTRIC PROPERTIES OF TERNARY PEROVSKITES.**

23. A.V. Ukhina, B.B. Bokhonov, D.V. Dudina, M.A. Esikov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Lavrentyev Institute of Hydrodynamics SB RAS, Novosibirsk, Russia*). **INTERACTION OF MATERIALS WITH GRAPHITE FOIL DURING SPARK PLASMA SINTERING: CASE STUDIES FOR Ni-W AND YTTRIA-STABILIZED ZIRCONIA POWDERS.**
24. K.V. Ivanyuk, G.R. Karagedov (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **SYNTHESIS AND STUDY OF ELECTRICAL CONDUCTIVITY OF Al_2O_3 /METAL COMPOSITE MATERIALS.**
25. L.A. Kuzovnikova, E.A. Denisova, S.V. Komogortsev, R.S. Iskhakov, I.V. Nemtsev, N.A. Shepeta (*Krasnoyarsk Institute of Railways Transport, Krasnoyarsk, Russia; Institute of Physics, Federal Research Center KSC SB RAS, Krasnoyarsk, Russia; Federal Research Center KSC SB RAS, Krasnoyarsk, Russia; Siberian Federal University, Krasnoyarsk, Russia*). **EFFECT OF INTENSIVE PLASTIC DEFORMATION ON STRUCTURE AND MAGNETIC PROPERTIES OF Al_2O_3 /Co(P) NANOCOMPOSITE PARTICLES.**
26. B.K. Kenzhaliev, V.G. Mironov, G.T. Shilov, Zh.B. Ilmaliyev, A.A. Bekisheva (*JSC «KBTU SPLAV», Kazakh–British Technical University, Almaty, Kazakhstan*). **ANTI-CORROSIVE FACING ALLOY FOR SUBMERSIBLE OIL-PRODUCING EQUIPMENT PARTS RESTORING AND PROTECTION.**

Wednesday, June 27, 2018

Poster Session II

1. I.A. Tumanov, A.A.L. Michalchuk, A.A. Politov, E.V. Boldyreva (*Novosibirsk State University, REC “MDEST”, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; EaStChem School of Chemistry and Centre for Science at Extreme Conditions, University of Edinburgh, Edinburgh, UK; EPSRC Centre for Continuous Manufacturing and Crystallisation, University of Edinburgh, UK*). **INTERMEDIATE STATES IN GLYCINE - MALONIC ACID - WATER SYSTEM.**

2. V.I. Evseenko, A.V. Dushkin, T.G. Tolstikova, M.V. Khvostov, S.A. Borisov, N.E. Polyakov (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*; *N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry, Novosibirsk, Russia*; *Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*). **MEHANO-CHEMICAL MODIFICATION OF NIMESULIDE.**
3. S.S. Khalikov, Yu.Ya. Spiridonov, M.M. Ilin, O.Yu. Selyutina, N.E. Polyakov (*A.N.Nesmeyanov Institute of Organoelement Compounds RAS, Moscow, Russia*; *All-Russian Scientific Research Institute of Phytopathology, Moscow Region, Russia*; *Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*). **AN EXAMPLE OF DESTRUCTION OF ANTIDOTE DURING ITS MECHANO-CHEMICAL MODIFICATION WITH POLYSACCHARIDE.**
4. V.A. Bukhtoyarov, A.L. Bychkov, O.I. Lomovsky (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **INFLUENCE OF MOISTURE CONTENT ON THE EFFICIENCY OF GRINDING OF PLANT RAW MATERIALS.**
5. O.A. Rozhanskaya, O.I. Lomovsky, E.M. Gorshkova (*Siberian Research Institute of Feedstuff, Krasnoobsk, Novosibirsk region, Russia*; *Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **BIOLOGICAL ACTIVITY OF MECHANOCOMPOSITES IN THE CULTURE OF PLANT TISSUES IN VITRO.**
6. Wenhao Xu, Meiqun Hu, Weike Su (*Zhejiang University of Technology, Hangzhou, Zhejiang, China*). **EXTRACTION OF ANTHRAQUINONES FROM CASSIA OCCIDENTALIS L. BY MECHANO-CHEMISTRY AND EVALUATION ANTI-INFLAMMATION EFFECTS BY OVALBUMIN-INDUCED AIRWAYS INFLAMMATION IN A MOUSE MODEL OF ALLERGIC ASTHMA.**
7. Qihong Zhang, A.V. Dushkin, Weike Su (*Zhejiang University of Technology, Hangzhou, Zhejiang, China*; *Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **PREPARATION, CHARACTERIZATION, IN VITRO AND IN VIVO STUDIES OF OLMESARTAN MEDOXOMIL IN A TERNARY SOLID DISPERSION WITH N-METHYL-D-GLUCAMINE AND HYDROXYPROPYL-B-CYCLODEXTRIN.**
8. Qihong Zhang, N.E. Polyakov, L.P. Suntsova, Yu.S. Chistyachenko, V.I. Evseenko, M.V. Khvostov, T.S. Frolova, T.G. Tolstikova, A.V. Dushkin, Weike Su (*National Engineering Research Center for Process*

Development of Active Pharmaceutical Ingredients, Collaborative Innovation Center of Yangtze River Delta Region Green Pharmaceuticals, Zhejiang University of Technology, Hangzhou, China; Key Laboratory for Green Pharmaceutical Technologies and Related Equipment of Ministry of Education, College of Pharmaceutical Sciences, Zhejiang University of Technology, Hangzhou, China; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Voevodsky Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia; N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry, Novosibirsk, Russia).

PREPARATION OF CURCUMIN SOLID DISPERSIONS WITH ENHANCED BIOAVAILABILITY AND CYTOTOXIC ACTIVITY BY MECHANOCHEMISTRY.

9. I.V. Maceichik, A.N. Sapozhnikov, I.O. Lomovskiy, E.A. Suvorova, E.G. Martynova (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **OBTAINING OF POWDERS OF INFRARED DRYING VEGETABLE RAW MATERIALS FOR THE OPTIMIZATION OF BAKERY PRODUCTS.**
10. I.V. Maceichik, I.O. Lomovskiy, E.G. Martynova (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **THE USE OF ENCAPSULATION TECHNOLOGY FOR IMPROVEMENT OF FUNCTIONAL PROPERTIES OF CURD DESSERTS.**
11. S.A. Myz, T.P. Shakhtshneider, A.S. Medvedeva, L.P. Safronova, T.M. Konshina, A.A. Burluckaya, G.V. Goldobina (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; A.E. Favorsky Irkutsk Institute of Chemistry SB RAS, Irkutsk, Russia; E.A. Wagner Perm State Medical University, Perm, Russia*). **MECHANOCOMPOSITES OF PIROXICAM WITH CHITOSAN OF DIFFERENT MOLECULAR MASS.**
12. A.V. Mikhailovskaya, S.A. Myz, M.A. Mikhailenko, S.A. Kuznetsova T.P. Shakhtshneider (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Chemistry and Chemical Technology SB RAS, Federal Research Center "Krasnoyarsk Science Center SB RAS", Krasnoyarsk, Russia*). **MECHANOCHEMICAL SYNTHESIS OF COCRYSTALS OF BETULIN.**

13. T.P. Shakhtshneider, M.A. Mikhailenko, V.A. Drebuschak, T.N. Drebuschak, Yu.N. Malyar, S.A. Kuznetsova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Sobolev Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia; Institute of Chemistry and Chemical Technology SB RAS, Federal Research Center "Krasnoyarsk Science Center SB RAS", Krasnoyarsk, Russia*). **EFFECT OF BALL-MILLING ON PREPARATION OF COMPOSITES OF BETULIN AND BETULIN DIACETATE WITH POLYETHYLENE GLYCOL.**
14. M.A. Mikhailenko, N.A. Pankrushina, Yu.N. Malyar, S.A. Kuznetsova, T.P. Shakhtshneider (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia; Institute of Chemistry and Chemical Technology SB RAS, Federal Research Center "Krasnoyarsk Science Center SB RAS", Krasnoyarsk, Russia; Siberian Federal University, Krasnoyarsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **EFFECT OF MECHANICAL TREATMENT ON MICROWAVE-ASSISTED SYNTHESIS OF SUPRAMOLECULAR COMPLEXES OF BETULIN DIACETATE WITH ARABINOGLACTAN.**
15. E.M. Podgorbunskikh, A.L. Bychkov, N.V. Bulina, O.I. Lomovsky (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **CHANGE IN THE DEGREE OF CRYSTALLINITY OF α -CELLULOSE AND PLANT RAW MATERIAL UNDER MECHANICAL TREATMENT.**
16. A.S. Arshanitsa, G.M. Telysheva (*Latvian State Institute of Wood Chemistry, Riga, Latvia*). **EFFECT OF DISENTEGRATOR TREATMENT ON DISPERSITY AND PHYSICAL-CHEMICAL CHARACTERISTICS OF HYDROLYSIS LIGNIN.**
17. V.A. Soloshenko, N.A. Nosenko, I.O. Lomovskiy (*Siberian Federal Scientific Center of Agrotechnologies, SibNIPTIZh, Krasnoobsk, Novosibirsk region, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANO-CHEMICAL SEA BUCKTHORN PRODUCTS AS FODDER ADDITIVES FOR PIGS.**
18. K.V. Gavrilova, Z.A. Akimenko, A.G. Ogienko, A.L. Bychkov, O.I. Lomovsky (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Nikolaev Institute of Inorganic Chemistry, Novosibirsk, Russia*). **FRACTIONATION OF PLANT MATERIALS (ON THE EXAMPLE OF**

PEA SEEDS) AND STUDY OF PHYSICAL AND CHEMICAL PROPERTIES OF THE SELECTED PROTEIN AND CARBOHYDRATE FRACTIONS.

19. O.I. Lomovsky, I.O. Lomovskiy, T.V. Teplyakova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Federal Budgetary Research Institution State Research Center of Virology and Biotechnology "Vector", Koltsovo, Novosibirsk region, Russia*). **THE CONCENTRATION OF SOLUBLE BIOLOGICALLY ACTIVE SUBSTANCES IN POWDER MATERIALS OBTAINED FROM WOODY MUSHROOMS BY THE MECHANO-CHEMICAL METHOD.**
20. B.E. Savdenbekova, N.F. Uvarov, A.K. Ospanova (*Al-Farabi Kazakh National University, Almaty, Kazakhstan; Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **OBTAINING OF NANOFILMS BASED ON Ag-CHITOSAN/Na-CARBOXYMETHYLCELLULOSE ON THE SURFACE OF TITANIUM IMPLANTS.**
21. D.I. Senchurova, I.O. Lomovskiy (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **SOLID-PHASE REFINERY PRODUCTS OF MECHANO-CHEMICAL TREATMENT OF PLANT RAW MATERIALS.**
22. Y.O. Menshova, I.O. Lomovskiy, E.S. Bychkova, O.I. Lomovsky, L.N. Rozhdestvenskaya (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **THE USE OF MECHANOCOMPOSITES OF GREEN TEA AS ANTIOXIDANT ADDITIVES FOR THE FORMULATION OF FUNCTIONAL FOODS.**
23. D.V. Gosman, V.D. Pogorova, A.L. Bychkov, E.S. Bychkova, O.I. Lomovsky, L.N. Rozhdestvenskaya (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANOENZYMIC OBTAINING IN SOLID PHASE OF PROTEIN HYDROLYZATE FOR THE DEVELOPMENT OF NEW PRODUCTS FOR SPECIALIZED PURPOSES.**
24. E.V. Kotlyar, F.K. Gorbunov, V.A. Poluboyarov, L.K. Berdnikova, A.V. Kadimova (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **INVESTIGATION OF THE UV RADIATION**

INFLUENCE ON OPERATING CHARACTERISTICS OF POLYURETHANE.

25. S.K. Nikitin, F.K. Gorbunov, V.A. Poluboyarov, L.K. Berdnikova, A.V. Kadimova (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **INFLUENCE OF HIGH TEMPERATURES ON OPERATING CHARACTERISTICS OF POLYURETHANE.**
26. N.V. Savelyeva, N.V. Yudina, E.V. Linkevich, O.I. Lomovsky (*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **CHANGE IN THE COLLOIDAL PROPERTIES OF HUMIC SUBSTANCES DURING MECHANO-CHEMICAL ACTIVATION.**

Thursday, June 28, 2018

Poster Session III

1. Y.V. Auchynnikau, A.P. Voznyakovskii, T.F. Grigoreva, V.A. Liopo, Y.I. Eisimont, A.A. Voznyakovskii (*Yanka Kupala State University of Grodno, Grodno, Belarus; Research Institute of Rubber, St. Petersburg, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **PHYSICOMECHANICAL CHARACTERISTICS OF COMPOSITE MATERIALS MODIFIED WITH MECHANICALLY ACTIVATED PARTICLES.**
2. D.V. Dunaev, A.S. Ulihin, A.A. Iskakova, N.F. Uvarov (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **INFLUENCE OF MECHANO-CHEMICAL TREATMENT ON TRANSPORT PROPERTIES OF COMPOSITE SOLID ELECTROLYTES BASED ON $[(C_4H_9)_4N]BF_4$.**
3. M.P. Popov, S.F. Bychkov, S.A. Chizhik, A.P. Nemudry (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **OXYGEN EVOLUTION FROM NONSTOICHIOMETRIC BSCF PEROVSKITE PREPARED BY MECHANO-CHEMICAL TECHNOLOGY.**
4. V.A. Belotserkovsky, N.V. Kosova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **$Na_4Fe_3(PO_4)_2P_2O_7$ AND $Na_{4-x}Li_xFe_3(PO_4)_2P_2O_7$ CATHODE MATERIALS PREPARED VIA MECHANO-CHEMICAL WAY.**
5. O.A. Podgornova, N.V. Kosova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **THE $LiFe_{0.5}Mn_{0.5}PO_4$**

CATHODE MATERIALS: THE INFLUENCE OF SYNTHESIS METHOD ON ITS STRUCTURE, MORPHOLOGY, AND ELECTROCHEMICAL PROPERTIES.

6. A.A. Shindrov, N.V. Kosova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **MECHANO-CHEMICAL SYNTHESIS OF A NEW COMPOSITE $\text{Na}_3\text{FePO}_4\text{CO}_3/\text{C}$ CATHODE MATERIAL FOR SODIUM-ION BATTERIES.**
7. E.V. Shubnikova, A.P. Nemudry (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **STRUCTURE AND OXYGEN PERMEABILITY OF Mo-CONTAINING BSCF PEROVSKITE.**
8. V.T. Senyut, P.A. Vitiaz, S.A. Kovaliova, T.F. Grigoreva (*Joint Institute of Mechanical Engineering, NAS of Belarus, Minsk, Belarus; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **PECULIARITIES OF THE STRUCTURE OF COMPOSITE MATERIAL OBTAINED ON THE BASIS OF BN - (TiN, AlN) AFTER MECHANICAL ACTIVATION AND SINTERING UNDER PRESSURE.**
9. B.S. Sadykov, N.N. Mofa, M.B. Ismailov, A.Ye. Bakkara, Z.A. Mansurov (*Institute of Combustion Problems, Almaty, Kazakhstan; National Centre for Space Research and Technology, Almaty, Kazakhstan; al-Farabi Kazakh National University, Almaty, Kazakhstan*). **MECHANO-CHEMICAL ACTIVATION AND MODIFICATION OF METAL POWDERS FOR ENERGETIC CONDENSED SYSTEMS.**
10. D.V. Alekseev, Yu.G. Mateyshina, V.R. Khusnutdinov, N.F. Uvarov (*Novosibirsk State University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia*). **MECHANO-CHEMICAL SYNTHESIS OF INERT COMPONENT FOR COMPOSITE SOLID ELECTROLYTES BASED ON CsNO_2 .**
11. K.O. Denisova, V.I. Nikolicheva, A.A. Ilyin, R.N. Rumyantsev, A.P. Ilyin (*Ivanovo State University of Chemical Technology, Ivanovo, Russia*). **REGULARITIES IN THE FORMATION OF COBALT FERRITE WITH A SPINEL STRUCTURE.**
12. A.S. Bagishev, D.V. Maslennikov, B.V. Voloshin, N.V. Niftalieva, A.P. Nemudry (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State Technical University, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia*). **INFLUENCE OF MECHANO-CHEMICAL PROCESSING ON**

**FUNCTIONAL PROPERTIES OF ANODE-SUPPORTED
MICROTUBULAR SOLID-OXIDE FUEL CELL.**

13. N.V. Niftalieva, E.V. Shubnikova, A.P. Nemudry (*Novosibirsk State Technical University, Novosibirsk, Russia; Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **SYNTHESIS AND PROPERTIES OF THE HOLLOW FIBER $Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\delta}$ MEMBRANES.**
14. E.G. Bushueva, E.A. Drobyaz, G.O. Plotnikov, V.A. Bataev (*Novosibirsk State Technical University, Novosibirsk, Russia*). **STRUCTURE AND PROPERTIES OF AUSTENITIC STEEL SURFACE-DOPED WITH BORON.**
15. Yu.D. Kaminsky (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*). **INVOLVEMENT OF TECHNOGENIC WASTES INTO PROCESSING (MECHANOCHEMISTRY FOR ECOLOGY). PRESENTATION OF THE MONOGRAPH.**
16. V.G. Surkov, M.V. Mozhayskaya, A.K. Golovko (*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia*). **MECHANOCHEMICAL TREATMENT OF OIL SHALE IN SUPERCRITICAL SOLVENT.**
17. V.G. Surkov, G.S. Pevneva, A.K. Golovko (*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia*). **TRANSFORMATIONS OF TAR RESINS AND ASPHALTENES MECHANICALLY TREATED AT ELEVATED TEMPERATURES.**
18. E.V. Bogatyreva, A.G. Ermilov (*National University of Science and Technology «MISIS», Moscow, Russia*). **PECULIARITIES OF STRUCTURAL CHANGES OF REM-CONTAINING PHASE OF EVDIALITE CONCENTRATE AFTER MECHANOACTIVATION.**
19. Y.V. Auchynnika, J. Padgurskas, M. Jucienė, I.A. Petropavlovskiy (*Yanka Kupala State University of Grodno, Grodno, Belarus; Aleksandras Stulginskis University, Kauno raj., Lithuania; Institute of Architecture and Construction, Kaunas, Lithuania; D. Mendeleev University of Chemical Technology of Russia, Moscow, Russia*). **TRIBOTECHNICAL CHARACTERISTICS OF MECHANOACTIVATED THIN COATINGS.**
20. M.K. Skakov, N.M. Mukhamedova, Sh.R. Kurbanbekov (*National Nuclear Center, Kurchatov, Kazakhstan; Shakarim State University, Semey, Kazakhstan*). **MECHANICAL PROPERTIES OF CERAMIC MATERIAL OBTAINED BY SPARK PLASMA SINTERING.**

21. O.N. Sidelnikova, A.N. Salanov, D.A. Jatzenko, A.N. Serkova (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Borekov Institute of Catalysis SB RAS, Novosibirsk, Russia*). **INFLUENCE OF THE GLASS SUBSTRATE TREATMENT BY SURFACE ION EXCHANGE AND CHEMICAL ETCHING ON STRUCTURAL FEATURES OF THE GOLD NANOLAYER.**
22. A.A. Politov, A.G. Telin (*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; "UNTC" LLC, Ufa, Russia*). **MECHANO-CHEMICAL TECHNOLOGY OF PRODUCTION OF NOVEL HYBRID MATERIALS FOR OIL INDUSTRY.**
23. P.A. Ryabinkina, E.G. Bushueva, I.N. Gradusov, A.A. Nikulina, V.A. Bataev (*Novosibirsk State Technical University, Novosibirsk, Russia*). **STRUCTURE AND PROPERTIES OF NBC DOPED AUSTENITIC STEEL.**
24. V.V. Samoylenko, L.I. Shevtsova, I.S. Ivanchik (*Novosibirsk State Technical University, Novosibirsk, Russia; Siberian State University of Water Transport, Novosibirsk, Russia*). **THE EFFECT OF MECHANICAL ACTIVATION ON THE CORROSION RESISTANCE OF THE Ni₃Al INTERMETALLIC, OBTAINED BY SPS.**
25. M.V. Rashkovets, A.A. Nikulina (*Novosibirsk State Technical University, Novosibirsk, Russia*). **FORMATION OF STRUCTURE AND PHASE COMPOSITION OF Ni-BASED ALLOYS OBTAINED BY HIGH-SPEED DIRECT LASER DEPOSITION.**