

NOVOSIBIRSK STATE TECHNICAL UNIVERSITY
AL-FARABI KAZAKH NATIONAL UNIVERSITY
INSTITUTE OF SOLID STATE CHEMISTRY AND MECHANOCHEMISTRY
SIBERIAN BRANCH OF THE RUSSIAN ACADEMY OF SCIENCES

VII INTERNATIONAL RUSSIAN - KAZAKHSTAN CONFERENCE

CHEMICAL TECHNOLOGIES OF FUNCTIONAL MATERIALS

CONFERENCE PROGRAM

Novosibirsk, Russia,

28-30 April 2021

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Conference includes 2 Sections:

Section 1. Synthesis, modification, investigation and manufacture of functional materials.

Section 2. Chemical engineering, catalytic processes, environmental aspects of applications of functional materials

Wednesday 28 April 2021

General meeting 10:00 - 10:20

Welcome greetings from the representatives of
Novosibirsk State Technical University,
Al Farabi Kazakh National University
Institute of Solid State Chemistry and Mechanochemistry SB RAS

10:20 - 17:00 Oral presentations

Section 1. Synthesis, modification, investigation and manufacture of functional materials

10:20	Spark plasma sintering features of ball-milled powders: experimental results and discussion Dudina D.V.^{1,2,3}, Vidyuk T.M.^{2,4}, Korchagin M.A.^{2,3}, Gavrilov A.I.², Ukhina A.V.², Bokhonov B.B.², Anisimov A.G.¹ <i>¹Lavrentyev Institute of Hydrodynamics SB RAS, Novosibirsk, Russia</i> <i>²Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> <i>³Novosibirsk State Technical University, Novosibirsk, Russia</i> <i>⁴Khrstianovich Institute of Theoretical and Applied Mechanics, SB RAS, Novosibirsk, Russia</i>
10:50	Crystal structure and electrochemical properties of sodium ferrous sulfate phosphate NaFe₂PO₄(SO₄)₂ Shindrov A.A.¹, Kabanov A.A.^{1,2}, Kosova N.V.¹ <i>¹Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> <i>²Samara State Technical University, Samara, Russia</i>
11:05	Electric explosion of conductors to obtain antibacterial bicomponent ZnO-Ag nanoparticles Zhou V.R.^{1,2}, Vornakova E.A.^{1,2}, Bakina O.V.², Glazkova E.A.², Suliz K.V.², Naumova L.B.¹ <i>¹National Research Tomsk State University, Tomsk, Russia</i> <i>²Institute of Strength Physics and Materials Science, Tomsk, Russia</i>
11:20	Obtaining silver-containing multilayers based on modified clay materials Toksanbay A., Kubasheva Zh.B., Ospanova A.K. <i>Al-Farabi Kazakh National University, Almaty, Kazakhstan</i>

11:35	<p>Mathematical modeling of charging and discharging processes in lithium and sodium ion batteries</p> <p><u>Semykina D.O.</u>, Kosova N.V.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
11:50	<p>The effect of treatment with sodium chloride and hydrochloric acid on the physicochemical characteristics of chamotte clay</p> <p><u>Rakhym A.B.</u>, Seylkhanova G.A.</p> <p><i>Al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
12:05	<p>Obtaining TiC-Cu composites by electrospark sintering of Ti-Cu-C (carbon black) and Ti-Cu-C (graphite) mixtures</p> <p><u>Viduyk T.M.</u>^{1,2}, Dudina D.V.^{1,3,4}, Korchagin M.A.^{1,4}, Gavrilov A.I.¹, Ukhina A.V.¹, Bulanova U.E.¹</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia</i> ³<i>Institute of Hydrodynamics SB RAS, Novosibirsk, Russia</i> ⁴<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
12:20	<p>Influence of the composition of carbon-containing precursors on the properties of composite cathode materials $\text{LiFe}_{0.5}\text{Mn}_{0.5}\text{PO}_4/\text{C}$</p> <p><u>Podgornova O.A.</u>, Kosova N.V.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
12:35	<p>Effect of chromium concentration on corrosion resistance of surface layers of chromium-nickel steel</p> <p><u>Bushueva E.G.</u>, Turlo E.M., Kladieva E.V., Tyutyunkov D.V., Khamgushkeeva G.V.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>

Lunch Break 12:50-14:00

14:00	<p>Proton-conducting composite membranes based on metal-organic coordination polymers</p> <p><u>Ponomareva V.G.</u></p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
14:30	<p>Magnetic sorption materials for the extraction of organic anions from aqueous solutions</p> <p><u>Petrova Yu.Yu.</u>¹, Sevastyanova E.V.¹, Bulatova E.V.¹, Матейшина Ю.Г.^{2,3}</p> <p>¹<i>Surgut State University, Surgut, Russia</i> ²<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ³<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
14:45	<p>Synthesis and characterization of silver/diatomite nanocomposite</p> <p><u>Kubasheva Zh.B.</u>, Ospanova A.K.</p> <p><i>Al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>

15:00	<p>Photo- and triboluminescent coordination polymers Tb (III) and Eu (III) based on aromatic bisphosphine oxides</p> <p><u>Bryleva Yu.A.</u>, Glinskaya L.A., Artemyev A.V., Rakhmanova M.I., Komarov V.Yu., Samsonenko D.G.</p> <p><i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i></p>
15:15	<p>Synthesis of calcium aluminates by airtel method</p> <p><u>Gerus Yu.Yu.</u>¹, Ilina E.V.², Bedilo A.F.^{2,3}, Bannov A.G.¹</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>G.K. Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia</i> ³<i>Novosibirsk Technological Institute (Branch), A.N. Kosygin Russian State University, Novosibirsk, Russia</i></p>
15:30	<p>Complexes of Zn (II), Cd (II), and Pd (II) with a chiral 1,10-phenanthroline derivative containing di-isopropylidene glucose: synthesis, structure, properties</p> <p><u>Kokina T.E.</u>^{1,2}, Agafontsev A.M.^{2,3}, Sizintseva K.D.^{1,2}, Komarov V.Yu.^{1,2}, Rakhmanova M.I.¹, Tkachev A.V.^{2,3}</p> <p>¹<i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ³<i>N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Russia</i></p>
15:45	<p>Mechanochemical synthesis and reduction of complex oxides of niobium and tantalum with magnesium</p> <p><u>Udalova T.A.</u>^{1,2}, Vosmerikov S.¹, Grigorieva T.F.¹, Devyatkina E.T.¹, Lyakhov N.Z.¹</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
16:00	<p>Mechanochemical Synthesis of Pb₂MgWO₆ Piezoceramic with Dopants</p> <p><u>Shevchenko N.S.</u>^{1,2}, Gusev A.A.¹</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
16:15	<p>Composite material based on chamotte clay for desalination of salt water</p> <p><u>Shiyanova R.A.</u>, Rakhym A.B., Seylkhanova G.A.</p> <p><i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
16:30	<p>Obtaining bismuth-ammonium citrate</p> <p><u>Koledova E.S.</u>, Yukhin Yu.Yu.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
16:45	<p>Preparation of silver supporting nanocomposites for wound dressing materials</p> <p><u>Baltabayeva B.K.</u>, Kubasheva Zh., Ospanova A.K.</p> <p><i>al-Farabi Kazakh National University, Almaty, Republic of Kazakhstan</i></p>

Section 2. Chemical engineering, catalytic processes, environmental aspects of applications of functional materials

10:20	<p>Applications of Catalysts in Oil and Gas Industry</p> <p><u>Abdollah Esmaeili</u>, Yermek Aubakirov, Kanapiyeva Fatima Mukhidinovna, Khamkenko Anastasiya, Kalamgali Tanakoz, Maksotova Kuralay, Buzayev Nurdaulet Amanzholuly</p> <p><i>al-Farabi Kazakh National University, Almaty, Republic of Kazakhstan</i></p>
10:50	<p>Technologies for Removing Sulfur from Heavy Crude Oil</p> <p><u>Abdollah Esmaeili</u></p> <p><i>Al-Farabi Kazakh National University, Almaty Kazakhstan</i></p>
11:05	<p>Water-soluble polymers as the enhancers of CO₂ sorption by lime-based sorbents</p> <p><u>Derevshikov V.S.</u> Selyutina O.Y.</p> <p><i>Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia</i> <i>V.V. Voevodsky Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia</i> <i>Novosibirsk State University, Novosibirsk, Russia</i> <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
11:20	<p>The use of zinc citrate for the production of carbon materials</p> <p><u>Sinelnikova Yu.E.</u>^{1,2}, Uvarov N.F.^{1,2}</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
11:35	<p>Hydrooxycarbonylation of cyclohexene in the presence PdCl₂(PPh₃)₂-PPh₃-AlCl₃ system</p> <p>Shalmagambetov K.M.¹, Vavasori A.², Zhaksylykova G.Zh.¹, Kanapiyeva F.M.¹, Kudaibergenov N.Zh.¹, <u>Bulybayev M.Y.</u>^{1*}, Almatkyzy P.¹, Mamyrkhan D.B.¹</p> <p>¹<i>Center of Physical Chemical Methods of Research and Analysis, Al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ²<i>Department of Molecular Science and Nanosystems, Ca' Foscari University Venice, Scientific Campus, Venezia, Italy</i></p>
11:50	<p>Production of low sulfur coke from heavy oil residues</p> <p><u>Buzayev N.A.</u>, Aubakirov Ye.A.</p> <p><i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
12:05	<p>Synthesis of a copolymer of isodecyl and benzyl methacrylates after radiation initiation</p> <p><u>Antonov I.M.</u>¹, Varand A.V.^{1,2}, Mikhaylenko M.A.^{1,2}, Eltsov I.V.³, Bryazgin A.A.², Smirnov E.B.⁴, Tolochko B.P.^{1,2}</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Institute of Nuclear Physics, Novosibirsk, Russia</i> ³<i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ⁴<i>Russian Federal Nuclear Center VNIITF, Snezhinsk, Russia</i></p>
12:20	<p>Method of obtaining microtubular nickel membranes for hydrogen purification</p>

	<p><u>Malbakhova I.A.</u>, Shubnikova E.V., Titkov A.I., Nemudry A.P. <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
12:35	<p>Production of syngas over Ni-Co catalyst prepared by solution combustion synthesis method Zhang X.^{a,b}, Alaidar Y.^a, Kazybekkyzy N.^a, <u>Baizhumanova T.S.</u>^{a,b}, Tungatarova S.A.^{a,b}, Murzin D.Y.^c, Maki-Arvela P.^c ^a<i>Al-Farabi Kazakh National University, Almaty, Kazakhstan;</i> ^b<i>D.V. Sokolsky Institute of Fuel, Catalysis and Electrochemistry, Almaty, Kazakhstan;</i> ^c<i>Abo Akademi University, Turku, Finland</i></p>

Lunch Break 12:50-14:00

14:00	<p>Modern functional materials and technologies based on them for solving environmental problems in industry, energy and transport <u>Zagoruiko A.N.</u> <i>Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia</i></p>
14:30	<p>Influence of cavitation impact on physical and chemical properties of fuel oil <u>Barshabaeva A.O.</u>, Aubakirov E.A. <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
14:45	<p>Acid properties of catalytically intelligent systems "nanometal-polymer-natural zeolite" for the synthesis of high-octane additives <u>Alimukhanbetova M.M.</u>¹, Abdiyusupov G.G.², Kadirbekov K.A.², Yugay O.K.², Serebryanskaya A.P.², Abyurov A.Zh.² ¹<i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ²<i>JSC «A.B. Bekturov Institute of Chemical Sciences»</i></p>
15:00	<p>Organo-inorganic composites based on bicomponent metal nanoparticles to combat marine biofouling <u>Vornakova E.A.</u>^{1,2}, Zhou V.R.^{1,2}, Pervikov A.V.², Byakina O.V.², Svarovskaya N.V.², Naumova L.B.¹ ¹<i>National Research Tomsk State University, Tomsk, Russia</i> ²<i>Institute of Strength Physics and Materials Science, Tomsk, Russia</i></p>
15:15	<p>Production of coke of improved quality by hydrotreating of coal tar <u>Ermeimbaeva G.T.</u>, Smagulova N.T. <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
15:30	<p>Smart oxygen membrane <u>Zyryanov V.V.</u> <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
15: 45	<p>Development of MOCVD processes for producing iridium-containing electrocatalysts for water oxidation</p>

	<u>Ilyin I.Yu.</u>, Kalny D.B. <i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i>
16:00	Investigation of the effect of organic additives on 3-D structured catalysts for the hydroprocessing of tar and fuel oil <u>Lazarenko N.S.</u>^{1,2}, Kaplin N.D.^{1,2}, Vorobyeva E.E.², Lysikov A.I.² ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Boreshkov Institute of Catalysis SB RAS, Novosibirsk, Russia</i>
16:15	Effective building materials using man-made waste and mineral raw materials Berdnikova L.K.¹, Gorbunov F.K.^{1,2}, <u>Lapin A.V.</u>^{2*}, Onipchenko A.P.² ¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk State Technical University, Novosibirsk, Russia</i>
16:30	The use of natural zeolite for the processing of polymer waste Aubakirov E., Akhmetova F., Tashmukhambetova Zh., Sasykova L., <u>Kurmangalieva A.</u>, Kalamgali T. <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
16:45	Extraction of magnesium from technogenic chrysotile-asbestos waste from the Zhitikara deposit <u>Mukhametzhanova A.A.</u>^{1,2}, Shayakhmetova R.A.¹, Stepanenko A.S.¹, Osipov P.A.¹, Akbaeva D.N.² <i>Republican State Enterprise: National Center for Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan, RSE "NC KPMS RK", laboratory of rare metals, Almaty, Kazakhstan</i> ² <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>

Thursday 29 April 2021

10:00 - 17:00 Plenary sessions
17:00 General session, discussion

Section 1. Synthesis, modification, investigation and manufacture of functional materials

10:00	Magnetic and biologically active coordination compounds of iron (II) and copper (II) <u>Lavrenova L.G.</u> <i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i>
10:30	Obtaining antibacterial coatings for suture surgical threads <u>Rakhmatullayeva D.T.</u>, Ospanova A.K., Zhumagul A. <i>al-Farabi Kazakh National University, Almaty, Republic of Kazakhstan</i>
10:45	Study of the effect of hydrogen bonds on the electronic structure of calix- and thiacalxarenes by X-ray emission spectroscopy

	<u>Lavrukhina S.A., Fedorenko A.D., Semushkina G.I.</u> <i>Institute of Inorganic Chemistry, SB RAS, Novosibirsk, Russia</i>
11:00	Influence of the SrAl₁₂O₁₉ content formed during sintering on the characteristics of oxide ceramics <u>Antropova K.A., Kalugina Ya.G., Cherkasova N.Yu.</u> <i>Novosibirsk State Technical University, Novosibirsk, Russia</i>
11:15	The effect of carbon porosity on the phase transitions and polymorphism of ionic liquid 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide Supiyeva Zh.A.^{1,2}, <u>Zholdaskaliyeva A.K.</u>, Tangirbergen K.N., Pavlenko V.V., Bakirova B.S. ¹ <i>Institute of Combustion Problems, Almaty, Kazakhstan</i> ² <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
11:30	Sorption characteristics of materials based on zeolite and chamotte clay <u>Baranchieva Z.E., Seylkhanova G.A., Rakhym A.B.</u> <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
11:45	Effect of mechanical treatment of iridium on solid-phase interaction with boride and tungsten carbide <u>Bannykh D.A., Lozanov V.V., Baklanova N.I.</u> <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i>
12:00	Obtaining bitumen from coal of the Shubarkol deposit <u>Abik N.A., Smagulova N.T.</u> <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
12:15	Optimization of the parameters of plasma-stimulated CVD synthesis of hybrid films of diamond / carbon nanotubes on silicon substrates <u>Matveeva A.S.^{1,2}, Gorodetsky D.V.², Okotrub A.V.²</u> ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i>
12:30	Preparation and thermal stability of mixed crystals of betulin and suberic acid <u>Mikhailovskaya A.V.¹, Myz S.A.¹, Gerasimov K.B.¹, Kuznetsova S.A.², Shakhtshneider T.P.¹</u> ¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Institute of Chemistry and Chemical Technology SB RAS, Krasnoyarsk, Russia</i>

Lunch Break 12:45-14:00

14:00	Solid electrolytes based on organic salts of substituted ammonium <u>Uvarov N.F.^{1,2}, Ulihin A.S.², Mateyshina Yu.G.^{1,2}</u> ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i>
14:30	Czochralski growth of Li₂MoO₄ crystals for scintillator applications

	<p><u>Grigorieva V.D.</u> <i>Institute of Inorganic Chemistry, SB RAS, Novosibirsk, Russia</i></p>
14:45	<p>Obtaining composite particles of Ti powder - 25 wt. % TiN for use in GHP and CGN by mechanical treatment in a planetary mill <u>Drozdov V.O.</u>, Chesnokov A.E., Smirnov A.V. <i>Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia</i></p>
15:00	<p>Spark sintering and forging of a composite material with an aluminum matrix, strengthened by particles of metallic glass $Fe_{66}Cr_{10}Nb_5B_{19}$ <u>Kvashnin V.I.</u>^{1,2}, Dudina D.V.^{1,2,3}, Legan M.A.^{1,2}, Anisimov A.G.² ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Institute of Hydrodynamics SB RAS, Novosibirsk, Russia</i> ³ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
15:15	<p>Influence of various parameters on the processes of solid-phase interaction in the iridium - silicon carbide system <u>GolosoV M.A.</u>, Lozanov V.V., Baklanova N.I. <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
15:30	<p>Optimization of the temperature of obtaining a powder composite material B_4C-ZrB_2 by the carbide boring method <u>Gudyma T.S.</u>¹, Krutskii Yu. L.¹, Uvarov N.F.^{1,2}, Bannov A.G.¹, Aparnev A.I.¹ ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
15: 45	<p>Preparation of bimetallic copper-nickel nanoparticles by reduction in benzyl alcohol <u>Malbakhova I. A.</u>, Vorobyov A.M., Logutenko O.A., Titkov A.I. <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
16:00	<p>Composite solid electrolytes based on nanodiamonds <u>Mateyshina Yu.G.</u>^{1,2,3}, Alekseev D.V.^{1,2}, Uvarov N.F.^{1,2,3} ¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ³ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
16:15	<p>Polymer composite electrolytes based on CsH_2PO_4 <u>Bagryantseva I.N.</u>, Ponomareva V.G. <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
16:30	<p>Spin crossover in iron (II) complexes with poly nitrogen-containing heterocyclic ligands in solutions <u>Kokovkin V.V.</u>^{1,2}, Korotaev E.V.¹, Mironov I.V.^{1,2}, Lavrenova L.G.¹ ¹ <i>Institute of Inorganic Chemistry, SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk National Research State University, Novosibirsk, Russia</i></p>
16:45	<p>Obtaining tungsten-containing coatings on the surface of synthetic diamond and their effect on the thermal conductivity of copper-diamond composites</p>

Ukhina A.V.¹, Dudina D.V.^{1,2}, Bokhonov B.B.¹, Samoshkin D.A.³, Stankus S.V.³, Skovorodin I.N.⁴, Savintseva D.V.⁵

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Section 2. Chemical engineering, catalytic processes, environmental aspects of applications of functional materials

10:00	<p>Composite materials based on La – Mg – Mn – Ni – Al in catalytic oxidative reforming of methane</p> <p><u>Kaumenova G.N.</u>^{a,b}, <u>Xanthopoulou G.</u>^c, <u>Aubakirov Y.A.</u>^a, <u>Sarsenova R.O.</u>^d, <u>Sovetbek Y.K.</u>^{a,b}, <u>Kazybekkyzy N.</u>^a, <u>Manabayeva A.</u>^e, <u><u>Tungatarova S.A.</u></u>^{a,b}, <u>Baizhumanova T.S.</u>^{a,b}</p> <p>^a<i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ^b<i>D.V. Sokolsky Institute of Fuel, Catalysis and Electrochemistry, Almaty, Kazakhstan</i> ^c<i>Institute of Nanoscience and Nanotechnology, NCSR Demokritos, Athens, Greece</i> ^d<i>Abai Kazakh National Pedagogical University, Almaty, Kazakhstan</i> ^e<i>Kazakh-British Technical University, Almaty, Kazakhstan</i></p>
10:30	<p>Synthesis and oxidation properties of Pd / MgO catalysts</p> <p><u>Ilyina E.V.</u>¹, <u>Bedilo A.F.</u>¹, <u>Levashov P.I.</u>², <u>Kenzhin R.M.</u>¹, <u>Vedyagin A.A.</u>¹</p> <p>¹<i>Borsov Institute of Catalysis SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
10:45	<p>Synthesis and physico-chemical characteristics of catalysts based on mesoporous aluminosilicates</p> <p><u>Abdrasilova A.K.</u>, <u>Umbetkaliyeva K.M.</u>, <u>Zakirov Zh.E.</u>, <u>Vassilina G.K.</u>, <u>Dosmail T.Sh.</u></p> <p><i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
11:00	<p>Analysis of the operation of a catalytic unit for the selective oxidation of ammonia</p> <p><u>Kapustin A.A.</u>¹, <u>Ostrovsky Yu.V.</u>^{1,2}, <u>Zabortsev G.M.</u>²</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Research and Production Center "EIDOS", Novosibirsk, Russia</i></p>
11:15	<p>Stabilization of water-coal suspensions</p> <p><u>Nauryzbay A.Kh.</u>, <u>Mukhit A.T.</u>, <u>Kerimkulova M.Zh.</u>, <u>Seitkan K.</u>, <u>Musabekov K.B.</u></p> <p><i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
11:30	<p>Kinetics of leaching of copper ore dressing tailings with hydrochloric acid and sodium hypochlorite solutions</p>

	Syzdykova L.I., <u>Nurtazina N.D.</u>, Erdenbekova A.N. <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
11:45	Synthesis of N-methyl derivatives of fluorinated bromine-containing quinolin-2-ones <u>Kalizhnikova E.E.</u>¹, Selivanova G.A.² ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Russia</i>
12:00	Composite catalysts for the catalytic processing of fuel oil Shakiyeva T.V.^a, Sassykova L.R.^b, <u>Khamlenko A.A.</u>^b, Dossumova B.T.^a, Sassykova A.R.^c, Muratova A.^b, Zhumagali M.^b, Zhakirova N.K.^b, Abildin T.S.^b ^a <i>Scientific and Production Technical Center "Zhalyn" LLP, Almaty, 050012, Kazakhstan</i> ^b <i>Al-Farabi Kazakh National University, Almaty, 050040, Kazakhstan</i> ^c <i>Almaty College of Economics and Law, Almaty, 050004, Kazakhstan</i>
12:15	Carboxylation of hydroxyarenes with potassium ethyl carbonate Kanapiyeva F.M., Kudaibergenov N.Zh., Zhaksylykova G.Zh., <u>Tursynkhankyzy M.</u> <i>Department of Chemistry and Chemical Technology, Al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
12:30	Assessment of CO₂ flooding as enhanced oil recovery <u>Makhambetov A.Y.</u>, Azilkhanov N.D., Nasibullin B.M. <i>Al-Farabi Kazakh National University, Kazakhstan, Almaty</i>

Lunch Break 12:45-14:00

14:00	Mechanochemical recovery of soil humates Yudina N.V.¹, Linkevich E.V.¹, Savelieva A.V.¹, <u>Lomovsky O.I.</u>² ¹ <i>Institute of Oil Chemistry SB RAS, Tomsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i>
14:30	Oxidation of carbon monoxide in the presence of metal-supported mayenite-based systems <u>Ovchinnikova D.A.</u>^{1,2}, Koskin A.P.², Bannov A.G.¹ ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia</i>
14:45	Hydrolytic process of bismuth processing to obtain compounds Daminov A.S.¹, Koledova E.S.², Mischenko K.V.², Yukhin Yu.M.² ¹ <i>Rare Metals Plant, Novosibirsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i>
15:00	Hydrorefining of ozonized coal tar <u>Otynshev E.B.</u>, Smagulova N.T. <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
15:15	Metal organic frameworks based on copper(II) compounds in catalysis <u>Omirezakova A.T.</u>, Maksotova K.S., Smagulova I.A., Bakirova B.S.

	<i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
15:30	<p>Photoactivation of acetonitrile in a fluorinated graphite matrix</p> <p><u>Semushkina G.I.</u>¹, Pinakov D.V.¹, Chekhova G.N.¹, Asanov I.P.¹, Fedoseeva Yu.V.¹, Makarova A.A.², Okotrub A.V.¹, Bulusheva L.G.¹</p> <p>¹<i>Institute of Inorganic Chemistry, SB RAS, Novosibirsk, Russia</i> ²<i>Institute of Chemistry and Biochemistry, Free University of Berlin, Germany</i></p>
15: 45	<p>Oxidation of aliphatic alcohols by catalase encapsulated in a macroporous matrix of polyampholytic cryogel</p> <p><u>Smagulova I.A.</u>^a, Bakirova B.S.^a, Akbaeva D.N.^a, Tatykhanova G.S.⁶, Kudaybergenov S.E.⁶, Shakhvorostov A.V.⁶</p> <p>^a<i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ⁶<i>Institute of Polymer Materials and Technologies, Almaty, Kazakhstan</i></p>
16:00	<p>Liquid-phase hydrogenation of 1-hexene on multicomponent skeletal nickel catalysts</p> <p><u>Kairbekov Zh.</u>, <u>Suymbaeva S.M.</u>, Jeldybaeva I.M., Kayirzhanova K.B.</p> <p><i>Institute of New Chemical Technologies and Materials, Almaty, Kazakhstan</i> <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
16:15	<p>Synthesis and study of calcium aluminates C12A7 and catalysts Pd / C12A7</p> <p><u>Tregubova K.V.</u>¹, <u>Bedilo A.F.</u>^{2,3}, <u>Shuvarakova E.I.</u>^{2,3}</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia</i> ³<i>Novosibirsk Technological Institute (Branch), A.N. Kosygin Russian State University, Novosibirsk, Russia</i></p>
16:30	<p>Polymer gel design, production and injection into oil producing interval of a sandstone reservoir to prevent extra produced water</p> <p><u>Abdollah Esmacili</u>, Yermek Aubakirov, Kanapiyeva Fatima Mukhidinovna, Khamkenko Anastassiya, Kalamgali Tanakoz, Maksotova Kuralay</p> <p><i>al-Farabi Kazakh National University, Almaty, Republic of Kazakhstan</i></p>

17:00 General Discussion, Summing-up the Conference

POSTER PRESENTATIONS

Section 1. Synthesis, modification, investigation and manufacture of functional materials

1.	<p>Reduced graphene oxide supercapacitor electrode <u>Zheleznov D.I.</u>, Tsyganov A.R., Vikulova M.A., Gorshkov N.V. <i>Saratov State Technical University, Saratov, Russia</i></p>
2.	<p>Preparation of silver nanoparticles and nanoplates by polyols reduction of its salts with oxyethylated carboxylic acid <u>Borisenko T.A.</u>, Logutenko O.A., Titkov A.I. <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
3.	<p>Morphology of mesoporous materials obtained by anodizing tin under various conditions <u>Vasilyeva T.A.</u>^{1,2}, Uvarov N.F.^{1,2,3} ¹ <i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ³ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
4.	<p>Investigation of the process of chemical treatment of carbon nanofibers for supercapacitors <u>Golovakhin V.V.</u>, Brester A.E., Novgorodtseva O.N., Bannov A.G. <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
5.	<p>Study of the mechanochemical interaction of tungsten with liquid gallium <u>Grigoriev V.D.</u>^{1,2}, Vosmerikov S.V.¹ ¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
6.	<p>Study of proton conductivity and structural properties of polymer electrolytes CsH₅(PO₄)₂-polyvinylbutiral <u>Guskov R.D.</u>^{1,2}, Ponomareva V.G.¹, Bagryantseva I.N.¹ ¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
7.	<p>Investigation of the mechanical strength of composite polymer electrolytes based on CsH₂PO₄ <u>Dormidonova D.O.</u>, Bagryantseva I.N., Ponomereva V.G. <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
8.	<p>Synthesis of nanocomposites based on strontium stannate <u>Loginov A.V.</u>^{1,2}, Aparnev A.I.¹, Uvarov N.F.^{1,2} ¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>

9.	<p>Features of mechanochemical synthesis of hydroxyapatite doped with copper and zinc</p> <p>Bulina N.V., Vinokurova O.B., <u>Eremina N.V.</u>, Prosanov I.Yu., Khusnutdinov V.R., Chaikina M.V.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
10.	<p>Influence of silicon carbide modifiers on the physical and mechanical properties of gray cast iron and nodular cast iron</p> <p>Polyboyarov V.A.^{1,3}, Cherepanov A.N.², Kuznetsov V.A.³, Korotaeva Z.A.¹, <u>Zhdanok A.A.</u>^{1*}</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia</i> ³<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
11.	<p>Development of composite electrode materials based on nanosized nickel and zirconium oxide for the manufacture of fuel cells using additive technologies</p> <p><u>Bagishev A.S.</u>, Titkov A.I., Popov M.P., Borobyov A.M., Nemudry A.P.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
12.	<p>Hydrothermal synthesis of particles of cathode material LiFePO₄ with controlled morphology</p> <p><u>Zima T.M.</u>^{1,2}, Uvarov N.F.^{1,2}, Mateyshina Yu.G.^{1,2}, Schurov N.I.², Xiaogang W.²</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ³<i>Harbin Technical University, Harbin, China</i></p>
13.	<p>Synthesis of titanium carbide by sintering without applying pressure</p> <p><u>Kvashina T.C.</u>, Uvarov N.F.</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
14.	<p>Investigation of the phase formation of composites based on lithium titanate using the XRD SR method</p> <p><u>Kozlova A. V.</u>^{1,2}, Sharafutdinov M. R.², Uvarov N.F.^{1,2}</p> <p>¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
15.	<p>Investigation of the electrophysical properties of compacted carbon nanomaterials</p> <p><u>Lapekin N.I.</u>, Shestakov A.A., Brester A.E., Bannov A.G.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
16.	<p>Features of the formation of conductive films during thermal and laser sintering of silver nanoparticles</p> <p><u>Malbakhova I.A.</u>, Titkov A.I., Borisenko T.B.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
17.	<p>Synthesis of nanosized bismuth particles in ethylene glycol from formats</p> <p><u>Mischenko K.B.</u>, Yukhin Yu.M.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>

18.	<p>MOCVD Pt, Ir - coatings for medical applications</p> <p><u>Petukhova V.V.</u>, Dorovskikh S.I.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i> <i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i></p>
19.	<p>Obtaining the main bismuth salicylate in the processing of nitric acid solutions</p> <p><u>Perebeynos A.A.</u>, Timakova E.V.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
20.	<p>Analysis of variance of powders of the precursor of basic bismuth oxalate for the preparation of β-Bi₂O₃</p> <p><u>Potekhina N.A.</u>, Timakova E.V.</p> <p><i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
21.	<p>Study of porous carbon materials for supercapacitors</p> <p><u>Popov M.V.</u>^{1,2,3}, Bannov A.G.², Shestakov A.A.², Lapekin N.I.²</p> <p>¹<i>Institute of Organic Chemistry RAS, Moscow, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ³<i>Russian University of Chemical Technology, Moscow, Russia</i></p>
22.	<p>Silver modification of synthetic meltblown nonwoven fabric</p> <p><u>Raspopina O.A.</u>, Aleksandrova T.P.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia,</i> <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
23.	<p>Synthesis of magnesium phenolate as a precursor for the production of mesoporous carbon materials</p> <p><u>Sinelnikova Yu. E.</u>^{1,2}, <u>Svistelnikova Yu.V.</u>¹, Uvarov N.F.^{1,2}</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
24.	<p>Investigation of the processes of ion exchange $\text{Na}^+ \rightarrow \text{Li}^+$ and the chemical interaction of one-dimensional layered structures of Na₂Ti₃O₇ with an aqueous solution of lithium hydroxide</p> <p><u>Simonenko E.V.</u>, Zima T.M.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i> <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
25.	<p>Influence of the chemical history of α-Bi₂O₃ on the morphology of the obtained basic bismuth succinate</p> <p><u>Timakova E.V.</u>, Afonina L.I.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i> <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>

26.	<p>Using computer simulation methods to calculate the deformation energy of the tetra-n-butylammonium ion</p> <p><u>Tyapkin P.Yu.</u>¹, Rychkov D.A.^{1,2}, Asanbaeva H.B.^{1,2,3}, Uvarov N.F.^{1,2,4}</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ³<i>Novosibirsk Institute of Organic Chemistry SB RAS, Novosibirsk, Russia</i> ⁴<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
27.	<p>Synthesis and electrical properties of the compound Ag₁₆I₁₂P₂O₇</p> <p><u>Ulihin A.S.</u>¹, Protazanova O.S.², Uvarov N.F.^{1,2,3},</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ³<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
28.	<p>Study of the stability of ultra-high molecular weight polyethylene to mechanochemical and radiation exposure</p> <p><u>Khasenova K.M.</u>¹, Vosmerikov S.V.²</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
29.	<p>Synthesis of porous ceramics for ceramic biosensors</p> <p><u>Khusnutdinov V.R.</u>¹, Malbakhova I.V.¹, Uvarov N.F.^{1,2}</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
30.	<p>Investigation of the electrophysical properties of DER-331 / TU and DER-331 / TU / MWCNT epoxy resin systems of various mass ratios</p> <p><u>Shestakov A.A.</u>, Brester A.E., Lapekin N.I. Bannov A.G.</p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
31.	<p>Study of composite solid electrolytes (1-x)LiClO₄ – xMgAl₂O₄</p> <p><u>Alekseev D.V.</u>^{1,2}, Mateyshina Yu.G.^{1,2,3}, Khusnutdinov V.R.²</p> <p>¹<i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ²<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ³<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
32.	<p>About of carbothermal and boron carbide reduction of oxides of some transition metals</p> <p><u>Krutskii Y.L.</u>¹, Krutskaya T.M.², Gudyma T.S.¹, Gerasimov K.B.³, Khabirov R.R.¹, Mass A.V.¹</p> <p>¹<i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ²<i>Novosibirsk State University of Architecture and Civil Engineering, Novosibirsk, Russia</i> ³<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>

Section 2. Chemical engineering, catalytic processes, environmental aspects of applications of functional materials

33.	<p>Development of methods for the synthesis of highly dispersed calcium aluminates and catalysts based on them</p> <p><u>Bedilo A.F.</u>^{1,2}, Shuvarakova E.I.^{1,2}, Ilyina E.V.¹</p> <p>¹ <i>Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk Technological Institute (Branch), A.N. Kosygin Russian State University, Novosibirsk, Russia</i></p>
34.	<p>Environmentally friendly method of organophosphorus compounds synthesis</p> <p>Omirezakova A.T., <u>Maksotova K.S.</u>, Suleimenova A.A., Smagulova I.A., Bakirova B.S.</p> <p><i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
35.	<p>Conversion of propane-butane fraction into aromatic hydrocarbons on zeolite-containing catalysts</p> <p>Tuktin B.T.¹, <u>Temirova A.M.</u>², Omarova A.A.²</p> <p>¹ <i>Sokolsky Institute of Fuel, Catalysis and Electrochemistry, Almaty, Kazakhstan</i> ² <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
36.	<p>Electrical insulating composite based on radiation-polymerized copolymer of isodecyl methacrylate and benzyl methacrylate with W with maximum density</p> <p><u>Antonov I.M.</u>¹, Varand A.V.^{1,2}, Mikhaylenko M.A.^{1,2}, Eltsov I.V.³, Bryazgin A.A.², Smirnov E.B.⁴</p> <p>¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i> ³ <i>Novosibirsk National Research State University, Novosibirsk, Russia</i> ⁴ <i>Russian Federal Nuclear Center VNIITF, Snezhinsk, Russia</i></p>
37.	<p>Influence of copper cations on the reduction ability of mixed zinc-copper ferrite and its electrocatalytic properties</p> <p><u>Visurkhanova Ya.A.</u>^{1,2}, Soboleva E.A.², Ivanova N.M.², Beysenbekova M.E.²</p> <p>¹ <i>Buketov University of Karaganda, Kazakhstan</i> ² <i>Institute of Organic Synthesis and Coal Chemistry, Karaganda, Kazakhstan</i></p>
38.	<p>Flameless disposal of liquid organic waste</p> <p><u>Ostrovsky Yu.V.</u>^{1,2}, Zabortsev G.M.²</p> <p>¹ <i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ² <i>Research Production Center «EIDOS», Novosibirsk, Russia</i></p>
39.	<p>Methods for separating wool fat from washing waters, obtaining lanolin, deep processing of wool fat</p> <p><u>Duzelbaeva S.D.</u>¹, Akhatova Z.S.², Kasenova B.A.², Konuspaev S.R.¹</p> <p>¹ <i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ² <i>Kazakh National Agricultural Research University, Almaty, Kazakhstan</i></p>
40.	<p>Study of the dependence of the oxygen permeability of microtubular membranes based on perovskite-like materials on the geometry of the gas-impermeable layer</p> <p><u>Kovalev I.V.</u>^{1,2*}, Vorobyov A.M.¹, Nemudry A.P.¹, Popov M.P.¹</p> <p>¹ <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ² <i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>

41.	<p>Production of long-chain α-olefins by cracking of paraffin on CHP supported for modified natural zeolite</p> <p><u>Krebaeva L.U.</u>, Esenbaeva A.N., Konuspaev S.R.</p> <p><i>al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
42.	<p>The use of crushed granite screenings to obtain building materials</p> <p>Gorbunov F.K.^{1,2}, <u>Lapin A.V.</u>^{2*}, Berdnikova L.K.¹, Bulgakov V.V.¹, Fadina A.A.¹</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
43.	<p>Technology for transformation of high-viscosity and high-paraffin oil raw materials using electromagnetic processing</p> <p><u>Zhakirova N.K.</u>^a, Salakhov R.Kh.^b, Nasim Zh.K.^a, Bakyt A.M.^a, Sassykova L.R.^a, Seilkhanov T.M.^c</p> <p>^a<i>Al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ^b<i>RSE "Institute for Combustion Problems", Almaty, Kazakhstan</i> ^c<i>Sh. Ualikhanov Kokshetau State University, Kokshetau, Kazakhstan</i></p>
44.	<p>Development of new carbon supports for rhodium in the creation of benzene hydrogenation catalysts</p> <p>Konuspaev S.R.¹, Shaimardan M.², <u>Nurlan A.</u>¹, Abildin T.S.¹, Suleimenov Y.Y.¹</p> <p>¹<i>Al-Farabi Kazakh National University, Almaty, Kazakhstan</i> ²<i>L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan</i></p>
45.	<p>Study of the effect of pH on the adsorption of sulfite on gold</p> <p><u>Novgorodtseva O.N.</u>^{1,2}, Zelinsky A.G.²</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
46.	<p>Influence of the nature of the terminal group of alkanethiols on the electrochemical stability and blocking ability of self-assembled nanofilms on a gold electrode</p> <p><u>Ovchinnikova S.N.</u>¹, Aleksandrova T.P.^{1,2}</p> <p>¹<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
47.	<p>Flameless disposal of solid organic waste</p> <p><u>Ostrovsky Yu.V.</u>^{1,2}, Zabortsev G.M.²</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Research Production Center «EIDOS», Novosibirsk, Russia</i></p>
48.	<p>Synthesis of catalysts by the heterophase sol-gel method and fusion of metal salts for the catalytic decomposition of methane</p> <p><u>Popov M.V.</u>^{1,2,3}, Kogan V.M.¹, Maksimov V.V.¹, Ivanova I.I.^{1,3}</p> <p>¹<i>Zelinsky Institute of Organic Chemistry RAS, Moscow, Russia</i> ²<i>Novosibirsk State Technical University, Novosibirsk, Russia</i></p>

	³ <i>Mendeleev Russian University of Chemical Technology, Moscow, Russia</i>
49.	<p>Adsorption of the SCN- ion on the Au (111) face</p> <p><u>Rogozhnikov N.A.</u></p> <p><i>Novosibirsk State Technical University, Novosibirsk, Russia</i> <i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
50.	<p>Investigation of the middle fraction obtained by ultracavitation processing of primary coal tar</p> <p><u>Seytzhan R.S.</u>, Baykenov M.I.</p> <p><i>Buketov Karaganda University, Karaganda, Kazakhstan</i></p>
51.	<p>Atomic absorption determination of precious metals in geological and technological objects using two-stage probe atomization</p> <p><u>Hertek Ch.E.</u>¹, Volzhenin A.V.², Uvarov N.F.^{1,3}</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Institute of Inorganic Chemistry SB RAS, Novosibirsk, Russia</i> ³<i>Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia</i></p>
52.	<p>Catalytic processing of distillate fractions of the resin in the presence of finely dispersed catalysts</p> <p><u>Ussenov N.K.</u>, Smagulova N.T.</p> <p><i>Al-Farabi Kazakh National University, Almaty, Kazakhstan</i></p>
53.	<p>Synthesis of hybrid derivatives of ursolic acid and study of their antioxidant activity by the DPPH method.</p> <p><u>Tsimbulova E.A.</u>¹, Popov S.A.²</p> <p>¹<i>Novosibirsk State Technical University, Novosibirsk, Russia</i> ²<i>Vorozhtsov Novosibirsk Institute of Organic Chemistry SB RAS, Russia</i></p>