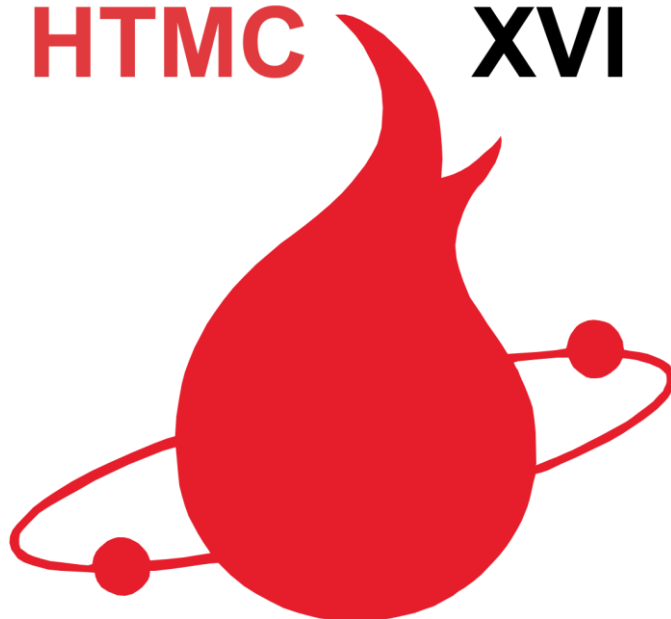




**XVI International IUPAC  
Conference on  
High Temperature  
Materials Chemistry**

**Conference Program**

**HTMC XVI**



**Kosmos Congress and Concert Hall,  
Ekaterinburg, Russia  
2 – 6 July, 2018**



**16<sup>th</sup> IUPAC Conference on  
High Temperature Materials Chemistry  
Organized by**



**Ural State Pedagogical University (USPU)**



**Institute of Metallurgy of the Ural Branch of  
the Russian Academy of Sciences  
(IMET UB RAS)**



**Ural Branch of the Russian Academy of  
Sciences (UB RAS)**



**Ural Federal University (UrFU)**

[www.htmc16.ru](http://www.htmc16.ru)

## **INTERNATIONAL ADVISORY BOARD**

Masaki Azuma (Japan)  
Giovanni Balducci (Italy)  
Catherine Bessada (France)  
Ricardo Castro (USA)  
Patrick Echegut (France)  
Yingwei Fei (USA)  
Nina Ilinykh (Russia)  
Herbert Ipser (Austria)  
Joonho Lee (Korea)  
Luis Filipe Malheiros (Portugal)  
Tetsuo Mohri (Japan)  
Alexandra Navrotsky (USA)  
Shizhang Qiao (Australia)  
Gerd M Rosenblatt (USA)  
Valeriy Sidorov (Russia)  
Hans Seifert (Germany)  
Sharon Webb (Germany)  
Ping Wu (Singapore)  
Xianran Xing (China)

### **NATIONAL ORGANIZING COMMITTEE**

#### **Chairman:**

Academician  
Nikolay Vatolin  
(IMET UB RAS, Ekaterinburg)

#### **Vice-Chairman:**

Academician  
Nikolay Mushnikov  
(UB RAS, Ekaterinburg)

#### **Members of the National Committee**

Alymov M.I.	Nikolaev A.I.
Brazhkin V.V.	Rempel A.A.
Charushin V.N.	Rychkov V.N.
Chupakhin O.N.	Shevchenko V.Ya.
Gavrichev K.S.	Simonova A.A.
Gusarov V.V.	Solntsev K.A.
Igoshev B.M.	Stolyarova V.L.
Kablov E.N.	Tsivadze A.Yu.
Koksharov V.A.	Tarasova N.P.
Leontiev L.I.	Vyatkin G.P.
Lisin V.L.	

### **LOCAL ORGANIZING COMMITTEE**

#### **Chairman:**

Prof. Valeriy Sidorov (USPU)

#### **Vice-Chairmen**

Dr. Nikolay Dubinin (IMET UB RAS)  
Dr. Ilya Polovov (UrFU)

#### **Scientific secretary**

Dr. Nina Ilinykh  
(UrTISI SIBSUTIS)

#### **Members of the Local Committee**

Barbin N.	Sabirzyanov N.
Bykov A.	Shchetinskiy A.
Bugueva N.	Shevchenko V.
Cherepanov V.	Shunyaev K.
Kolosov V.	Son L.
Kotenkov P.	Suetina A.
Krashaninin V.	Sushkevich A.
Lad'yanov V.	Tkachev N.
Leongardt V.	Tsepelev V.
Nikitina E.	Vedmid' L.
Popel P.	Volkovich V.
Sabirzyanov A.	Voroshilova M.

**HTMC XVI**

# 16<sup>th</sup> IUPAC High Temperature Material Chemistry Conference (HTMC-XVI)

*July 2 – 6, 2018, Ekaterinburg, Russia*

## Program of the Conference

**Sunday, 01.07.2018**

Registration (15<sup>00</sup> – 18<sup>30</sup>), Guided tour around the historical city center (16<sup>00</sup> – 17<sup>30</sup>),  
Welcome Party (18<sup>00</sup> – 21<sup>00</sup>)

**Monday, 02.07.2018**

8<sup>00</sup> – 10<sup>00</sup>

Registration

9<sup>00</sup> – 9<sup>45</sup>

Opening Ceremony

### Section A

#### High temperature thermodynamic measurements

9<sup>45</sup> – 10<sup>20</sup>

**Plenary A. H. Ipser**  
EXPERIMENTAL METHODS IN HIGH-TEMPERATURE  
THERMODYNAMICS

10<sup>20</sup> – 10<sup>45</sup>

**Inv. A. V.P. Vassiliev, V.A. Lysenko**  
RELATIONSHIP OF THERMODYNAMIC DATA WITH PERIODIC LAW

10<sup>45</sup> – 11<sup>00</sup>

**AO1. V.A. Volkovich, D.S. Maltsev, E.V. Raguzina, A.S. Dedyukhin,  
A.V. Shchetinskiy, L.F. Yamshchikov**  
THERMODYNAMICS OF f-ELEMENTS IN MULTICOMPONENT  
METALLIC SYSTEMS CONSISTING OF TWO f-ELEMENTS AND TWO  
LOW-MELTING METALS

11<sup>00</sup> – 11<sup>30</sup>

Coffee-break

11<sup>30</sup> – 11<sup>45</sup>

**AO2. D.S. Tsvetkov, P.S. Maram, N.S. Tsvetkova, A.Yu. Zuev, A. Navrotsky**  
HIGH RESOLUTION THERMOCHEMICAL STUDY OF PHASE  
STABILITY AND RAPID OXYGEN INCORPORATION IN YBaCo<sub>4-x</sub>Zn<sub>x</sub>O<sub>7+δ</sub>  
114-COBALTITES

11<sup>45</sup> – 12<sup>00</sup>

**AO3. A. Koryttseva, A. Navrotsky**  
DIRECT HIGH TEMPERATURE CALORIMETRIC STUDY OF OXIDE  
DISSOLUTION IN A CaO-MgO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> SLAG

12<sup>00</sup> – 12<sup>15</sup>

**AO4. K.S. Gavrichev, V.N. Guskov, M.A. Ryumin, A.V. Khoroshilov,  
P.G. Gagarin, O.N. Kondrat`eva**  
THERMODYNAMIC PROPERTIES OF RE TANTALATES AT HIGH  
TEMPERATURES (RE=Y, Gd)

12<sup>15</sup> – 12<sup>30</sup>

**AO5. P.O. Andreev, A.A. Polkovnikov, Y.G. Denisenko, O.V. Andreev**  
TEMPERATURES AND ENTHALPIES OF MELTING OF Ln<sub>2</sub>S<sub>3</sub> (Ln = Gd,  
Tb, Dy, Ho, Er, Tm, Yb, AND Lu) COMPOUNDS

12<sup>30</sup> – 12<sup>45</sup>

**AO6. A.L. Shilov, V.A. Vorozhtcov, S.I. Lopatin, V.L. Stolyarova**  
THERMODYNAMIC PROPERTIES OF THE Gd<sub>2</sub>O<sub>3</sub>-Y<sub>2</sub>O<sub>3</sub>-HfO<sub>2</sub> SYSTEM  
STUDIED BY HIGH TEMPERATURE MASS SPECTROMETRY AND  
OPTIMIZED USING THE BARKER LATTICE THEORY

12<sup>45</sup> – 13<sup>00</sup>

**AO7. S.I. Sadovnikov**  
SIZE STABILITY OF NANOSTRUCTURED SILVER SULFIDE

13<sup>00</sup> – 13<sup>15</sup>

**AO8. B. Kubíková, J. Mlynáriková, E. Mikšíková, Z. Netriová, M. Boča**  
COMPARISON OF PHASE EQUILIBRIUM AND VOLUME PROPERTIES  
OF SELECTED FLUORIDE MOLTEN SYSTEMS BASED ON  
LANTHANIDES

13 <sup>15</sup> – 13 <sup>30</sup>	<b>AO9.</b> <u>I. Saenko</u> , O. Fabrichnaya EXPERIMENTAL INVESTIGATION AND THERMODYNAMIC MODELING OF THE ZrO <sub>2</sub> -TiO <sub>2</sub> -MgO SYSTEM
13 <sup>30</sup> – 13 <sup>45</sup>	<b>AO10.</b> <u>A. Benmounah</u> , K. Chalah, R. Kheribet, M. Saidi, M. Samar THERMOGRAVIMETRIC STUDY OF CEMENT HYDRATION IN THE PRESENCE OF VARIOUS TYPES OF POLYCARBOXYLATE SUPERPLASTICIZERS
13 <sup>45</sup> – 14 <sup>00</sup>	<b>AO11.</b> <u>A.Yu. Chufarov</u> , N.V. Tarakina, A.P.Tyutyunnik, Ya.V. Baklanova, O.A. Lipina, E.V. Gorbatov, A.N. Enyashin, I.V. Baklanova, L.L. Surat, V.G. Zubkov STRUCTURAL TRANSFORMATIONS IN AL <sub>a</sub> Ge <sub>6</sub> O <sub>26</sub> (A = Li, K, Rb, Cs) CAUSED BY TEMPERATURE
14 <sup>00</sup> – 15 <sup>00</sup>	<b>Lunch</b>
<b><u>Section D</u></b> <b>Transport, ionic and electronic conductivity, grain boundaries, interfaces and surfaces</b>	
15 <sup>00</sup> – 15 <sup>35</sup>	<b>Plenary D.</b> <u>V.A. Cherepanov</u> , A.R. Gilev, E.A. Kiselev ELECTROTRANSPORT IN THE La <sub>2</sub> NiO <sub>4</sub> -BASED SOLID SOLUTIONS
15 <sup>35</sup> – 15 <sup>50</sup>	<b>DO1.</b> <u>S. Zhang</u> , C. Savaniu, J. T. S. Irvine INVESTIGATIONS ON QUATERNARY SCANDIA STABILISED ZIRCONIA BASED SYSTEMS FOR HIGH TEMPERATURE SOFCs ELECTROLYTE APPLICATION
15 <sup>50</sup> – 16 <sup>05</sup>	<b>DO2.</b> <u>A.Ye. Yermakov</u> , M.A. Uimin, A.S. Minin, A.V. Korolyov, A.F. Gubkin, L.S. Molochnikov, S.F. Konev, A.S. Konev, V.V. Mesilov, V.R. Galakhov DEFECTS AND SURFACE STATES OF 3D-DOPED TiO <sub>2</sub> NANOPARTICLES AS THE CRUCIAL FACTORS TO CONTROL THE PHYSICO-CHEMICAL PROPERTIES
16 <sup>05</sup> – 16 <sup>20</sup>	<b>DO3.</b> <u>M. Gibilaro</u> , L. Massot, P. Chamelot X RAY VISUALIZATION SYSTEM FOR SURFACE TENSION EVALUATION IN FLUORIDE MOLTEN SALTS
16 <sup>20</sup> – 16 <sup>35</sup>	<b>DO4.</b> <u>V.E. Roshchin</u> , P.A. Gamov, A.V. Roshchin, S.P. Salikhov ELECTRON EXCHANGE IN REACTIONS OF SOLID-PHASE CARBOTHERMIC REDUCTION OF METALS
16 <sup>35</sup> –	<b>Free Time</b>
<b>Tuesday, 03.07.2018</b>	
<b><u>Section G</u></b> <b>Materials for nuclear energy applications</b>	
9 <sup>00</sup> – 9 <sup>35</sup>	<b>Plenary G.</b> <u>C. Bessada</u> , D. Zanghi, V. Sarou-Kanian, A. Gil Martin, L. Maksoud, M. Gibilaro, P. Chamelot, H. Matsuura IONIC LOCAL STRUCTURE IN MOLTEN LiF-ThF <sub>4</sub> and LiF-UF <sub>4</sub> FUEL: EXAFS, NMR and MD APPROACH OF MOLTEN SALTS REACTOR
9 <sup>35</sup> – 10 <sup>00</sup>	<b>Inv. G.</b> S.B. Rutin, D.V. Volosnikov, <u>P.V. Skripov</u> HIGH-POWER HEAT TRANSFER IN SUPERCRITICAL FLUIDS: INSIGHT INTO THE PROBLEM OF GENERATION IV
10 <sup>00</sup> – 10 <sup>15</sup>	<b>GO1.</b> <u>D. Quaranta</u> , L. Massot, M. Gibilaro, E. Mendes ZIRCONIUM(IV) ELECTROCHEMICAL BEHAVIOR IN MOLTEN LiF-NaF
10 <sup>15</sup> – 10 <sup>30</sup>	<b>GO2.</b> <u>V. Khokhlov</u> , V. Dokutovich, I. Korzun, V. Kochedykov, P. Mushnikov THERMOPHYSICAL PROPERTIES OF MOLTEN FLUORIDE MIXTURES FOR NUCLEAR POWER APPLICATIONS
10 <sup>30</sup> – 10 <sup>45</sup>	<b>GO3.</b> <u>Milin Zhang</u> , Yongde Yan, Jun Wang THE EQUATION BETWEEN THE ATOMIC RADII AND THE EQUILIBRIUM POTENTIALS OF LANTHANIDES(RES) ON SOME CATHODES

10 <sup>45</sup> – 11 <sup>00</sup>	<b>GO4.</b> <u>A.M. Potapov</u> , K.R. Karimov, V.Yu. Shishkin, Yu.P. Zaikov CHLORINATION OF THE NITRIDE SPENT NUCLEAR FUEL COMPONENTS IN THE MEDIUM OF MOLTEN LiCl - KCl EUTECTIC
<b>11<sup>00</sup> – 11<sup>30</sup></b>	<b>Coffee-break</b>
11 <sup>30</sup> – 11 <sup>45</sup>	<b>GO5.</b> <u>J.Z. Liu</u> , N. Miyahara, S. Miwa, M. Takano, M. Osaka IMPROVEMENT OF RUTHENIUM RELEASE MODEL FROM A NUCLEAR FUEL UNDER A LWR SEVERE ACCIDENT
11 <sup>45</sup> – 12 <sup>00</sup>	<b>GO6.</b> <u>J. Delacroix</u> , N. Chikhi, P. Fouquart DENSITY AND SURFACE TENSION OF 316L, 304L AND 16MND5 STEEL USING DROPLET-BASED OR BUBBLING TECHNIQUES
12 <sup>00</sup> – 12 <sup>15</sup>	<b>GO7.</b> <u>V. Smolenski</u> , A. Novoselova, Y.D. Yan, J. Wang, J. Kewei PYROCHEMICAL SYNTHESIS OF INTERMETALLIC COMPOUNDS U-Cd AND U-Ga IN MOLTEN SALT-LIQUID METAL SYSTEMS
12 <sup>15</sup> – 12 <sup>30</sup>	<b>GO8.</b> <u>L. Soldi</u> , S. Gossé, A. Laplace, M. Roskosz EXPERIMENTAL STUDY AND THERMODYNAMIC MODELING OF THE Cu-Fe-Si-U SUB-SYSTEMS
<b>12<sup>30</sup> – 12<sup>40</sup></b>	<b>Technical break</b>
<b>Section F</b>	
<b>Earth and planetary materials at high pressures and temperatures</b>	
12 <sup>40</sup> – 13 <sup>05</sup>	<b>Inv. F1.</b> <u>E.V. Petrova</u> , V.I. Grokhovsky HIGH-PRESSURE IMPACTS ON THE METEORITES
13 <sup>05</sup> – 13 <sup>30</sup>	<b>Inv. F2.</b> <u>N.M. Chtchelkatchev</u> , V.A. Sidorov, A.E. Petrova, M.V. Magnitskaya, L.N. Fomicheva, D.A. Salamatina, A.V. Nikolaev, A. Rogalev, A.V. Tsvyashchenko EXPERIMENTAL AND THEORETICAL STUDY OF HIGH-PRESSURE SYNTHESIZED B20-TYPE COMPOUNDS Mn <sub>1-x</sub> Rh <sub>x</sub> Ge
13 <sup>30</sup> – 13 <sup>45</sup>	<b>FO1.</b> <u>I.V. Lomonosov</u> EQUATION OF STATE OF MATTER AT EXTREME CONDITIONS
13 <sup>45</sup> – 14 <sup>00</sup>	<b>CO10.</b> <u>Sharafat Ali</u> HIGH TEMPERATURE SYNTHESIS OF NITROGEN RICH GLASSES IN ALKALINE-EARTH SILICON OXYNITRIDE SYSTEMS
14 <sup>00</sup> – 14 <sup>15</sup>	<b>FO3.</b> <u>Yong-De Yan</u> , De-Bin Ji, Mi-Lin Zhang, Yun Xue, Pu Wang, Tai-Qi Yin, J. Wang PREPARATION OF Al-Re INTERMETALLIC COMPOUND WHISKER IN Mg-Li AND Al BASED ALLOYS IN LiCl-KCl MELTS
<b>14<sup>15</sup> – 15<sup>15</sup></b>	<b>Lunch</b>
<b>Section H</b>	
<b>Materials for aerospace applications</b>	
15 <sup>15</sup> – 15 <sup>50</sup>	<b>Plenary H.</b> <u>Kun Lin</u> , Kenichi Kato, Jun Chen, zheshua Lin, Qingzhen Huang, <u>Xianran Xing</u> STRUCTURE, NEGATIVE THERMAL EXPANSION AND SHG EFFECT IN A TUNGSTEN BRONZE OXIDE PPLN
15 <sup>50</sup> – 16 <sup>05</sup>	<b>HO1.</b> <u>A. Rakhmatullin</u> , K. Machado, F. Simko, D. Zanghi, I.B. Polovov, K.V. Maksimtsev, R. Bakirov, C. Bessada STUDY OF ALUMINIUM SCANDIUM ALLOY FORMATION IN MOLTEN NaF-ScF <sub>3</sub>
16 <sup>05</sup> – 16 <sup>20</sup>	<b>HO2.</b> <u>A.N. Petrova</u> , I.G. Brodova, E.V. Shorokhov ULTRA FINE-GRAINED ALUMINUM ALLOYS FOR AEROSPACE APPLICATION
16 <sup>20</sup> – 16 <sup>35</sup>	<b>HO3.</b> <u>B.Yu. Kuznetsov</u> , M.L. Vaganova, I.V. Osin, V.A. Prokofiev, O.Yu. Sorokin, M.A. Haskov, A.M. Shestakov MODELING AND SYNTHESIS OF A CERAMIC MATRIX FOR HIGH-TEMPERATURE COMPOSITE MATERIALS

16 <sup>35</sup> – 16 <sup>50</sup>	<b>HO4.</b> <u>M.S. Kalienko</u> , A.V. Volkov, M.O. Leder, P.E. Panfilov, A.V. Zhelnina INTERSTITIAL OXYGEN DIFFUSION HARDENING - OXYGEN CONTENT AND LATTICE PARAMETERS OF TITANIUM ALLOYS
16 <sup>50</sup> – 17 <sup>05</sup>	<b>HO5.</b> <u>T.S. Istomina</u> , T.G. Tiunova, S.A. Astafyeva HEAT-SHIELDING INTUMESCENT MATERIALS BASED ON EPOXY-RUBBER MATRIX
17 <sup>05</sup> – 17 <sup>20</sup>	<b>HO6.</b> S.A. Kuznetsov COATINGS OBTAINED IN MOLTEN SALTS FOR HIGH TEMPERATURE APPLICATION
17 <sup>20</sup> – 17 <sup>50</sup>	<b>Sponsor's Lectures</b>
17 <sup>20</sup> – 17 <sup>50</sup>	<b>International Committee Meeting</b>
17 <sup>50</sup> – 18 <sup>00</sup>	<b>Conference Photo</b>
18 <sup>00</sup> – 21 <sup>00</sup>	<b>Poster Session with Reception</b>
<b>Wednesday, 04.07.2018</b>	
<b>Section B</b>	
<b>Theory and modeling of high temperature materials</b>	
9 <sup>00</sup> – 9 <sup>35</sup>	<b>Plenary B.</b> S.G. Fries HIGH TEMPERATURE, HIGH EXPECTATIONS
9 <sup>35</sup> – 10 <sup>00</sup>	<b>Inv. B.</b> S. A. Deckerov THERMODYNAMIC DATABASE FOR MULTICOMPONENT OXIDE SYSTEMS
10 <sup>00</sup> – 10 <sup>15</sup>	<b>BO1.</b> Yang Yang, Hai-Lin Chen, Qing Chen, <u>Å. Jansson</u> , A. Engström, A. Hope, P. Mason A THERMODYNAMIC DATABASE FOR MULTI-COMPONENT Ti- AND TiAl-BASED ALLOYS AND ITS APPLICATION TO REAL MATERIALS.
10 <sup>15</sup> – 10 <sup>30</sup>	<b>BO2.</b> <u>E.V. Yazhenskikh</u> , T. Jantzen, K. Hack, M. Müller A NEW MULTIPURPOSE THERMODYNAMIC DATABASE FOR OXIDE SYSTEMS
10 <sup>30</sup> – 10 <sup>45</sup>	<b>BO3.</b> <u>B. Wilthan</u> , S. Townsend, V. Diky, A. Kazakov, K. Kroenlein DATA INFRASTRUCTURE FOR A FREE NIST/TRC RESOURCE FOR THERMOPHYSICAL PROPERTY DATA OF METAL SYSTEMS
10 <sup>45</sup> – 11 <sup>00</sup>	<b>BO4.</b> <u>O. Fabrichnaya</u> , M. Ilatovskaia THERMODYNAMIC MODELLING OF THE Al <sub>2</sub> O <sub>3</sub> -MgO-TiO <sub>2</sub> SYSTEM
11 <sup>00</sup> – 11 <sup>30</sup>	<b>Coffee-break</b>
11 <sup>30</sup> – 11 <sup>45</sup>	<b>BO5.</b> <u>F. Miradji</u> , C. Chikashi, K. Nakajima, M. Osaka STRUCTURAL AND THERMAL PROPERTIES OF Cs-Fe-Si-O SYSTEMS UNDER LWR SEVERE ACCIDENT BY DFT CALCULATIONS
11 <sup>45</sup> – 12 <sup>00</sup>	<b>BO6.</b> <u>K. Machado</u> , D. Zanghi, V. Sarou-Kanian, S. Cadars, V. Stabrowski, M. Salanne, C. Bessada STRUCTURAL AND TRANSPORT PROPERTIES OF CRYOLITE BATH BY COMBINING IN SITU NMR EXPERIMENTS, MOLECULAR DYNAMIC SIMULATIONS AND DFT CALCULATIONS
12 <sup>00</sup> – 12 <sup>15</sup>	<b>BO8.</b> A. Korenchenko, <u>A. Vorontsov</u> , B. Gelchinski MULTISCALE APPROACH TO SIMULATING THE METAL VAPOR CONDENSATION
12 <sup>15</sup> – 12 <sup>30</sup>	<b>BO9.</b> <u>L. Son</u> , M. Vasin, V. Sidorov LONG – TIME RELAXATION IN LIQUID EUTECTICS
12 <sup>30</sup> – 12 <sup>45</sup>	<b>BO10.</b> A. Udovsky THE METHODOLOGY OF APPLICATION OF AB-INITIO APPROACH AND PHYSICO-EMPIRICAL MODELS FOR CALCULATIONS OF STRUCTURAL, PHYSICAL AND THERMODYNAMIC PROPERTIES OF SIGMA- AND LAVEZ-PHASE IN Fe- (Cr, V, Mo, W) SYSTEMS

12 <sup>45</sup> – 13 <sup>00</sup>	<b>BO11.</b> A. Sobolev, A. Mirzoev STRUCTURE AND DYNAMICS OF TERNARY Fe-Cr-C SYSTEM AT HIGH TEMPERATURES
13 <sup>00</sup> – 13 <sup>15</sup>	<b>BO12.</b> A.A. Polyakov TWO APPROACHES TO THE CONSTRUCTION OF FRACTALS OF FIVE-POINTED STARS
13 <sup>15</sup> – 13 <sup>30</sup>	<b>BO13.</b> N. Tkachev, K. Peshkina ON STATISTICAL THERMODYNAMICS OF COMPLEX FORMATION IN MOLTEN SALTS
13 <sup>30</sup> – 13 <sup>45</sup>	<b>BO14.</b> N.E. Dubinin SQUARE-WELL SELF-DIFFUSION COEFFICIENTS OF LIQUID BINARY ALKALI-METAL ALLOYS WITHIN THE MEAN SPHERICAL APPROXIMATION
13 <sup>45</sup> – 14 <sup>45</sup>	<b>Lunch</b>
15 <sup>00</sup>	<b>Conference Excursion (bus tour: up to 5 h)</b>
<b>Thursday, 05.07.2018</b>	
<b><u>Section E</u></b>	
<b>Phase structure and metallurgical processes, corrosion</b>	
9 <sup>00</sup> – 9 <sup>35</sup>	<b>Plenary E.</b> A. Sundaresan CRYSTAL CHEMISTRY AND MAGNETO(DI)ELECTRIC PROPERTIES OF A-SITE MAGNETIC AND A-SITE ORDERED CHROMATES
9 <sup>35</sup> – 10 <sup>00</sup>	<b>Inv. E.</b> A.A. Rempel NONSTOICHIOMETRIC REFRACTORY COMPOUNDS
10 <sup>00</sup> – 10 <sup>15</sup>	<b>EO2.</b> M. Boča, A. Rakhmatullin, J. Mlynáriková, Z. Vasková, Z. Netriová, M. Mičušík XPS AND MAS NMR SPECTROSCOPY OF TERNARY FLUORIDES
10 <sup>15</sup> – 10 <sup>30</sup>	<b>EO3.</b> M. Kontrík, F. Šimko, D. Galusková, M. Nosko, V. Bizovská, M. Hičák, D. Galusek, A. Rakhmatullin, M. Korenko CORROSION OF TITANIUM DIBORIDE IN KF-AlF <sub>3</sub> -Al <sub>2</sub> O <sub>3</sub> MELT
10 <sup>35</sup> – 11 <sup>15</sup>	<b>Coffee-break</b>
11 <sup>15</sup> – 11 <sup>30</sup>	<b>EO4.</b> N.S. Patel, V. Pavlík, B. Kubíková, M. Nosko, V. Danielik, M. Boča STUDY OF HIGH-TEMPERATURE INTERACTION OF THE SUPERALLOYS WITH MOLTEN FLUORIDES
11 <sup>30</sup> – 11 <sup>45</sup>	<b>EO5.</b> A.F. Gibadullina, V.V. Karpov, I.B. Polovov, A.V. Abramov, V.A. Khotinov, A.Yu. Zhilyakov, S.V. Belikov, O.I. Rebrin THE EFFECT OF HIGH TEMPERATURES ON THE STRUCTURE, CORROSION AND MECHANICAL PROPERTIES OF C-4 ALLOY
11 <sup>45</sup> – 12 <sup>00</sup>	<b>EO7.</b> P. Svec, I. Janotova, P. Svec Sr., I. Skorvanek, M. Mihalkovic, I. Matko, D. Janickovic HIGH RESOLUTION AND IN-SITU STUDY OF STRUCTURE EVOLUTION IN RAPIDLY QUENCHED HARD MAGNETIC Al-Mn
12 <sup>00</sup> – 12 <sup>15</sup>	<b>EO8.</b> Z.S. Vinokurov, A.A. Saraev, O.A. Bulavchenko, A.V. Fedorov, V.V. Kaichev IN SITU XRD STUDY OF IRON-COPPER COMPOSITE CATALYSTS IN REACTION OF CO OXIDATION
12 <sup>15</sup> – 12 <sup>30</sup>	<b>EO9.</b> S. Sinyova, R. Starykh, O. Novozhilova, A. Vasil'eva HIGH ENTROPY ALLOYS BASED ON FeNiCoCrCu SYSTEM
12 <sup>30</sup> – 12 <sup>45</sup>	<b>EO10.</b> A.I. Zaitsev, A.V. Koldaev, N.A. Arutyunyan PROMISING DIRECTIONS OF INCREASING THE PROPERTIES OF STEEL
12 <sup>45</sup> – 13 <sup>00</sup>	<b>EO11.</b> G. J. Albertsson CHROMIUM PARTITION IN SLAGS



13 <sup>00</sup> – 13 <sup>15</sup>	<b>EO12.</b> O.Yu. Sheshukov, M.A. Mikheenkoy, I.V. Nekrasov, D.K. Egiazaryan, D.A. Lobanov CORRECTION OF THE METALLURGICAL SLAG PHASE COMPOSITION IN THE PROCESS OF REDUCTION ROASTING
13 <sup>15</sup> – 14 <sup>30</sup>	<b>Lunch</b>
<b><u>Section I</u></b> <b>Materials for advanced sources of energy</b>	
14 <sup>30</sup> – 15 <sup>05</sup>	<b>Plenary I.</b> V. Pralong DESIGN OF MATERIALS WITH ORIGINAL STRUCTURES, IONIC CONDUCTING PROPERTIES MATERIALS FOR ENERGY STORAGE
15 <sup>05</sup> – 15 <sup>30</sup>	<b>Inv. I.</b> W. X. Yuan, J.J. Yang, D. Wang, Y. Peng SILICON CARBIDE BASED MATERIALS FOR HYDROGEN EVOLUTION FROM VISIBLE-LIGHT DRIVEN WATER SPLITTING
15 <sup>30</sup> – 15 <sup>45</sup>	<b>IO1.</b> D. Tsvetkov, S. Telegin, I. Ivanov, D. Malyskin, V. Sereda, A. Sednev, N. Tsvetkova, R. Yagovitin, A. Zuev DOUBLE PEROVSKITES $\text{LnBaCo}_2\text{O}_{6-\delta}$ AS ENERGY RELATED MATERIALS: AN OVERVIEW
15 <sup>45</sup> – 16 <sup>00</sup>	<b>IO2.</b> A.M. Volodin, A.F. Bedilo, V.O. Stoyanovskii, V.I. Zaikovskii HIGH-TEMPERATURE SYNTHESIS OF FINELY DISPERSED $\text{C}_{12}\text{A}_7:e$ ELECTRIDES AND OXIDE MATERIALS IN CARBON NANOREACTOR CONDITIONS
16 <sup>00</sup> – 16 <sup>15</sup>	<b>IO3.</b> Muhammad Imran Din SUPERPARAMAGNETIC IRON OXIDE NANOPARTICLES (SPION) FOR CATALYTIC PYROLYSIS OF SACCHARUM BENGALENSE FOR BIOFUEL PRODUCTION AT HIGH TEMPERAURE
16 <sup>15</sup> – 16 <sup>30</sup>	<b>IO4.</b> I.S. Sipatov, N.I. Sidorov, E.A. Pastukhov, A.A. Vostryakov HIGH TEMPERATURE VANADIUM-BASED MEMBRANE ALLOYS FREE FROM PALLADIUM
16 <sup>30</sup> – 16 <sup>45</sup>	<b>IO5.</b> T. Nahhas, X. Py, R. Olives NUMERICAL INVESTIGATION OF A ROCK-PACKED BED THERMAL ENERGY STORAGE SYSTEM FOR HIGH AND LOW TEMPERATURE APPLICATIONS
16 <sup>45</sup> – 17 <sup>00</sup>	<b>IO6.</b> A. Galashev, O. Rakhmanova, K. Ivanichkina COMPUTATIONAL TEST OF SILICENE ON THE COPPER SUBSTRATE FOR ITS USE AS ANODE MATERIAL OF LITHIUM-ION BATTERIES
17 <sup>00</sup> – 19 <sup>00</sup>	<b>Free Time</b>
19 <sup>00</sup>	<b>Conference Banquet</b>
<b>Friday, 06.07.2018</b>	
<b><u>Section C</u></b> <b>Melts, ceramics, glasses and amorphous materials</b>	
9 <sup>00</sup> – 9 <sup>35</sup>	<b>Plenary C.</b> D. Holland-Moritz STRUCTURE AND DYNAMICS OF GLASS-FORMING ALLOY MELTS INVESTIGATED BY APPLICATION OF LEVITATION TECHNIQUES
9 <sup>35</sup> – 10 <sup>00</sup>	<b>Inv. C.</b> P. Svec, I. Janotova, D. Janickovic, B. Kunca, J. Marcin, I. Matko, V. E. Sidorov, I. Skorvanek, P. Svec Sr. PROCESSING OF NEW SOFT AND HARD MAGNETIC SYSTEMS PREPARED BY RAPID QUENCHING OF THE MELT
10 <sup>00</sup> – 10 <sup>15</sup>	<b>CO1.</b> A.R. Dubrovskiy, M.A Okunev, O.V. Makarova, E.A. Makhaev, S.A. Kuznetsov SUPERCONDUCTING NIOBIUM COATINGS DEPOSITED ON SPHERICAL SUBSTRATES IN MOLTEN SALTS

$10^{15} - 10^{30}$	<b>CO2.</b> <u>V.A. Voronov</u> , Yu.E. Lebedeva, O.Yu. Sorokin, M.L. Vaganova INVESTIGATION OF THE HIGH-TEMPERATURE COATINGS PROPERTIES ON THE BASIS OF AN YTTRIUM-ALUMOSILICATE SYSTEM FOR THE PROTECTION OF SiC MATERIALS FROM THE ACTION OF AN OXIDIZING ENVIRONMENT
$10^{30} - 10^{45}$	<b>CO3.</b> <u>V.S. Dolmatov</u> , S.A. Kuznetsov HIGH TEMPERATURE ELECTROCHEMICAL SYNTHESIS OF NIOBIUM AND TANTALUM CARBIDES COATINGS ON STEELS AND CARBON FIBERS
$10^{45} - 11^{00}$	<b>CO4.</b> <u>S.G. Menshikova</u> , M.G. Vasin, V.V. Brazhkin, V.I. Bugakov STUDY OF THE STRUCTURE OF THE GLASS-FORMING AL-Y ALLOYS OBTAINED WITH COOLING THE MELT UNDER HIGH PRESSURES
<b>11<sup>00</sup> - 11<sup>30</sup></b>	<b>Coffee-break</b>
$11^{30} - 11^{45}$	<b>CO5.</b> <u>N.A. Vatolin</u> , V.A. Polukhin, H.S. Estemirova, N.I. Sidorov, V.Ya. Mitrofanov CHANGES IN THE STRUCTURAL-DYNAMIC CHARACTERISTICS AS A FUNCTION OF TEMPERATURE AND HYDROGENATION OF AMORPHOUS METALLIC MELTS, GLASSES AND CRYSTALS
$11^{45} - 12^{00}$	<b>CO6.</b> <u>I.D. Popov</u> , S.V. Rempel, A.A. Rempel SILICATE GLASSES WITH HIGH-MELTING LUMINESCENT NANOPARTICLES
$12^{00} - 12^{15}$	<b>CO7.</b> <u>V. E. Sokol'skii</u> , V.P. Kazimirov, O.S. Roik STRUCTURE OF OXIDE MELT
$12^{15} - 12^{30}$	<b>CO8.</b> <u>M. Ilatovskaia</u> , G. Savinykh, O. Fabrichnaya PHASE RELATIONS IN THE MgO-TiO <sub>2</sub> AND Al <sub>2</sub> O <sub>3</sub> -MgO-TiO <sub>2</sub> SYSTEMS
$12^{30} - 12^{45}$	<b>CO11.</b> <u>V.S. Tsepelev</u> , Yu.N. Starodubtsev, V.V. Konashkov, K.M. Wu, W. Ruwu VISCOSITY OF MELT FOR NANOCRYSTALLINE ALLOYS IN THE MODEL OF FREE VOLUME
$12^{45} - 13^{00}$	<b>CO12.</b> <u>L.V. Kamaeva</u> , A.Yu. Korepanov, V.I. Lad'yanov VISCOSITY OF Al-Cu-Fe AND Al-Cu-Ni MELTS
<b>13<sup>00</sup> - 14<sup>00</sup></b>	<b>Awards Announcement and Conference Closure</b>
<b>14<sup>00</sup> - 15<sup>00</sup></b>	<b>Lunch</b>

## POSTERS (Tuesday, 03.07.2018, 18<sup>00</sup>-21<sup>00</sup>)

SECTION A	
<b>AP1</b>	V. Shevchenko, A. Konyukova, D. Eselevich, D. Afonichev, V. Davydov, N. Popov OXIDATION OF ZIRCONIUM AND ITS HYDRIDE POWDERS IN AIR
<b>AP2</b>	B. Hruška, Z. Netriová, Z. Vasková, M. Boča, M. Chromčíková, M. Liška HIGH TEMPERATURE RAMAN STUDY OF K <sub>2</sub> ZrF <sub>6</sub> PHASE TRANSITIONS
<b>AP3</b>	A. Ruseikina, G. Rogaleva, A. Pinigina, D. Turgunaliyeva, O. Andreev HIGH TEMPERATURE CHEMISTRY OF EuLnCuS <sub>3</sub> COMPOUNDS
<b>AP4</b>	K.I. Oleinik, <u>A.S. Bykov</u> , E.A. Pastukhov. CALORIMETRIC STUDY OF LIQUID Ag-Cu-Sn ALLOYS FORMATION. MIXING ENTHALPIES IN BOUNDARY BINARY SYSTEMS Ag-Cu, Ag-Sn, Cu-Sn AT 1150 °C
<b>AP5</b>	<u>N.A. Gribchenkova</u> , A.S. Smirnov, A.S. Alikhanyan HIGH TEMPERATURE BEHAVIOR OF ZnO-BASED TRANSPARENT CONDUCTIVE OXIDE SYSTEMS BY KNUDSEN EFFUSION MASS SPECTROMETRY
<b>AP6</b>	<u>N.A. Gribchenkova</u> , K.G. Smorchkov, A.G. Kolmakov, A.S. Alikhanyan THERMODYNAMIC CHARACTERISTICS OF THE Al <sub>2</sub> O <sub>3</sub> -MgO SYSTEM AT HIGH TEMPERATURE
<b>AP7</b>	<u>S.V. Stankus</u> , R.A. Khairulin, R.N. Abdullaev, I.V. Savchenko, O.S. Yatsuk VOLUMETRIC AND CALORIC PROPERTIES OF LIQUID RUBIDIUM-BISMUTH ALLOYS
<b>AP8</b>	<u>A. Koryttseva</u> , A. Navrotsky HIGH TEMPERATURE CALORIMETRIC STUDY OF NIOBIUM PHOSPHATES
<b>AP9</b>	P.V. Schelev, P.O. Andreev, M.A. Shtykova, K.A. Ognivova, <u>O.V. Andreev</u> SELENIDES OF RARE-EARTH ELEMENTS - PERSPECTIVE HIGH - TEMPERATURE MATERIALS
<b>AP10</b>	G.E. Nikiforova, <u>K.S. Gavrichev</u> , A.V. Khoroshilov HIGH-TEMPERATURE HEAT CAPACITY OF RARE EARTH ORTHONIOBATES
<b>AP11</b>	<u>A.L. Sednev</u> , D.S. Tsvetkov, A.Yu. Zuev THERMOCHEMISTRY OF YBaCo <sub>2</sub> O <sub>6-δ</sub>
<b>AP12</b>	V. Sereda, A. Sednev, D. Tsvetkov, A. Zuev DROP SOLUTION AND FORMATION ENTHALPIES OF BaCa <sub>1-x</sub> Nb <sub>x</sub> O <sub>3-δ</sub>
<b>AP13</b>	<u>I.D. Zakir'yanova</u> , I.V. Korzun, E.V. Nikolaeva THE THERMOCHEMISTRY OF CRYSTALLINE HYDRATES LnCl <sub>3</sub> • 6H <sub>2</sub> O (Ln = Nd, Gd) DEHYDRATATION PROCESS
<b>AP14 (FO2)</b>	<u>A.A. Valeeva</u> , M.G.Kostenko, A.Pfizner, A.A.Rempel EFFECT OF HIGH PRESSURE AND HIGH TEMPERATURE ON STRUCTURE OF TITANIUM MONOXIDE TiO <sub>v</sub>
SECTION B	
<b>BP1</b>	<u>M.M. Asadov</u> , E.S. Kuli-zade PHASE EQUILIBRIA AND THERMODYNAMICS OF THE ZnO-PbO-Bi <sub>2</sub> O <sub>3</sub> SYSTEM
<b>BP2</b>	Korenchenko A.E., Vorontsov A.G., Gel'chinskii B. R. STATISTICAL ANALYSIS OF EARLY STAGE OF GAS-PHASE NUCLEATION IN SUPERSATURATED METAL VAPOR BASED ON MOLECULAR-DYNAMICS MODELING
<b>BP3</b>	<u>Yili Cao</u> , Kun Lin, Kenichi Kato, Qingzhen Huang, Jun Chen, Yuanhua Xia, Xianran Xing ZERO THERMAL EXPANSION IN Ho <sub>2</sub> Fe <sub>16.35</sub> Co <sub>0.65</sub> ALLOY OVER A WIDE TEMPERATURE RANGE

<b>BP4</b>	<u>Tao Yang</u> , Kun Lin, Jun Chen, Xianran Xing TUNABLE NEGATIVE THERMAL EXPANSION IN (0.9-x)PbTiO <sub>3</sub> -xCaTiO <sub>3</sub> -0.1Bi(Zn <sub>1/3</sub> Ta <sub>2/3</sub> )O <sub>3</sub>
<b>BP5</b>	<u>Ya.M. Ridnyi</u> , A.V. Verkhovykh, A.A. Mirzoev, D.A. Mirzaev CARBON-SUBSTITUTIONAL INTERACTION IN BCC IRON
<b>BP6</b>	<u>A. Udovsky</u> , M. Kupavtsev THE INFLUENCE OF MAGNETISM ON THE STRUCTURAL AND THERMODYNAMIC PROPERTIES OF THE SIGMA PHASE IN THE Fe-V SYSTEM IN THE APPROXIMATION OF THE THREE-SUBLATTICE MODEL
<b>BP7</b>	<u>I. Saenko</u> , A. Udovsky, O. Fabrichnaya EXPERIMENTAL INVESTIGATION AND THERMODYNAMIC MODELING OF THE Fe–Y–O SYSTEM
<b>BP8</b>	<u>E.V. Dyuldina</u> , B.R. Gelchinski, V.N. Selivanov COMPUTER SIMULATION OF THE MULTICOMPONENT MELTS OF THE METALLURGICAL SLAGS
<b>BP9</b>	A.V. Senin GASPHASE-SOLIDPHASE” MODEL OF CARBOTHERMIC REDUCTION OF SOLID OXIDES
<b>BP10</b>	V.G. Kremenetsky, <u>S.A. Kuznetsov</u> FRONTIER MOLECULAR ORBITAL METHOD FOR ANALYSIS OF ELECTRON TRANSFER MECHANISMS IN MOLTEN SALTS
<b>BP11</b>	A.N. Filanovich, <u>T.M. Nuretdinov</u> , A.A. Povzner THERMODYNAMIC PROPERTIES OF MnSi
<b>BP12</b>	A.A. Yuryev, B.R. Gelchinski, <u>E.M. Zhilina</u> INVESTIGATION OF SHORT-RANGE ORDER STRUCTURE OF BISMUTH MELT BY THE VORONOI POLYHEDRA METHOD BASED ON FIRST – PRINCIPLE MOLECULAR DYNAMICS DATA
<b>BP13</b>	<u>N. M. Barbin</u> , V. P. Dan, D. I. Terentiev, S. G. Alekseev A STUDY OF THE THERMAL STABILITY OF FULLERENES C <sub>60</sub> BY THE METHOD OF THERMODYNAMIC MODELING
<b>BP14</b>	O.M. Ogorodnikova, <u>S.V. Yeltsin</u> DEFINING THERMOPHYSICAL PROPERTIES FOR SIMULATIONS OF HIGH- TEMPERATURE TECHNOLOGICAL PROCESSES
<b>BP15</b>	<u>A.G. Davydov</u> , N.K. Tkachev ESTIMATION OF THE POLARIZATION INTERACTIONS CONTRIBUTION INTO THERMODYNAMICS OF MOLTEN SALTS
<b>BP16</b>	<u>D. Zakiryanov</u> , N. Tkachev RAMAN SPECTRA OF CaCl <sub>n</sub> COMPLEXES FROM DFT CALCULATIONS
<b>BP17</b>	<u>D.I. Radzivonchik</u> , L.N. Gramoteeva, A.V. Lukoyanov AB INITIO MODELING OF SOLAR CELL CHALCOPYRITE MATERIALS
<b>BP18</b>	<u>N.I. Ilinykh</u> , L.E. Kovalev, G.A. Vachnenko THERMODYNAMIC MODELING OF Zn-S AND Zn-Se ALLOYS
<b>BP19</b>	A.S. Krivorogova, <u>N.I. Ilinykh</u> , S.A. Ilinykh THERMODYNAMIC MODELING OF SELF-FLUXING Ni-C-Cr-Si-B ALLOYS
<b>BP20</b>	E.I. Yuryeva THE MODELING OF TRANSITION BETWEEN THE HIGH-TEMPERATURE AND LOW-TEMPERATURE CONDUCTIVITY IN ELECTRON-CONDUCTING MATERIALS
<b>BP21</b>	B.S. Vorontsov, V. Moskvina, <u>I.A. Babina</u> , I.N. Grekhov MOLECULAR MODEL WITH SUPRA-STRUCTURAL UNITS ALKALINE BORATES
<b>BP22</b>	<u>V.A. Krashaninin</u> , N.E. Dubinin THE FIRST-PRINCIPLE PSEUDOPOTENTIAL CALCULATIONS OF ALKALI- ALKALI LIQUID ALLOYS THERMODYNAMICS

<b>BP23</b>	<u>N.V. Nesterov</u> , <u>B.S. Vorontsov</u> MODEL INVESTIGATION OF LIQUID METAL AND STEEL PARTICLES INTERACTION IN LOST FOAM CASTING
<b>BP24</b>	<u>N.E. Dubinin</u> INFLUENCE OF THE CORRECTION TO THE WILLS-HARRISON APPROACH ON THE THERMODYNAMICS OF LIQUID Co-Ni ALLOY
<b>BP25</b>	<u>I. A. Babina</u> RESEARCH PROPERTIES OF OXIDE MELTS IN A MODEL EXPERIMENT
<b>SECTION C</b>	
<b>CP1</b>	<u>Mona Gupta Shah</u> SPECIATION OF FEW SCHIFF BASED METAL COMPLEXES DERIVED OF - $\alpha$ AMINO NITRILE FROM AROMATIC ALDEHYDE WITH AROMATIC AMINES
<b>CP2</b>	<u>M. Chromčíková</u> , <u>A.A. Osipov</u> , <u>L.M. Osipova</u> , <u>B. Hruška</u> , <u>M.Liška</u> THERMODYNAMIC MODEL AND HIGH TEMPERATURE RAMAN SPECTRA OF Na <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> GLASSFORMING MELTS
<b>CP3</b>	<u>A.S. Kurlov</u> THERMAL DEGRADATION OF NANOCRYSTALLINE VC <sub>y</sub> POWDERS
<b>CP4</b>	<u>A.A. Osipov</u> , <u>L.M. Osipova</u> FTIR AND RAMAN SPECTROSCOPIES STUDIES OF ZnO DOPED BaO·2B <sub>2</sub> O <sub>3</sub> GLASS MATRIX
<b>CP5</b>	<u>D.K. Egiazaryan</u> , <u>S.N. Bonar</u> , <u>O.Yu. Sheshukov</u> , <u>I.V. Nekrasov</u> , <u>M.A. Mikheenkov</u> VISCOSITY OF THE SLAG WITH TITANIUM OXIDE AND SLAG MELTS STRUCTURE
<b>CP6</b>	<u>N.V. Olyanina</u> , <u>A.L. Bel'tyukov</u> , <u>V.I. Lad'yanov</u> VISCOSITY OF LIQUID ALLOYS OF COBALT WITH SILICON AND BORON
<b>CP7</b>	<u>I.D. Zakir'yanova</u> , <u>E.V. Nikolaeva</u> , <u>I.V. Korzun</u> ANOMALOUS BEHAVIOR OF THE PHYSICO-CHEMICAL PROPERTIES OF THE DISPERSE SYSTEM: MOLTEN Li <sub>2</sub> CO <sub>3</sub> -Na <sub>2</sub> CO <sub>3</sub> -K <sub>2</sub> CO <sub>3</sub> – NANO-SIZED MgO POWDER
<b>CP8</b>	<u>A. Rudenko</u> , <u>A. Kataev</u> , <u>O. Tkacheva</u> , <u>A. Redkin</u> , <u>Yu. Zaikov</u> ELECTRICAL CONDUCTIVITY OF CRYOLITE SYSTEMS IN MOLTEN AND SOLID STATE
<b>CP9</b>	<u>A. Rudenko</u> , <u>A. Kataev</u> , <u>O. Tkacheva</u> , <u>A. Redkin</u> , <u>Yu. Zaikov</u> STRUCTURE AND PROPERTIES OF CRYOLITE MELTS CONTAINING SCANDIA
<b>CP10</b>	<u>I.V. Sterkhova</u> , <u>L.V. Kamaeva</u> , <u>V.I. Lad'yanov</u> ON THE VISCOSITY OF BULK-AMORPHIZING (Fe <sub>0.75</sub> B <sub>0.14</sub> Si <sub>0.11</sub> ) <sub>100-x</sub> Ta <sub>x</sub> (x=1-4) MELTS
<b>CP11</b>	<u>I.V. Sterkhova</u> , <u>L.V. Kamaeva</u> , <u>V.I. Lad'yanov</u> ON THE FEATURES OF CONCENTRATION DEPENDENCES OF VISCOSITY OF Fe <sub>85-x</sub> Cr <sub>15</sub> C <sub>x</sub> (x=10-15) MELTS
<b>CP12</b>	<u>A.V. Popova</u> , <u>S.A. Kuznetsov</u> INFLUENCE OF Ba <sup>2+</sup> AND Ca <sup>2+</sup> CATIONS ON THE KINETICS OF CHARGE TRANSFER FOR THE Nb(V)/Nb(IV) REDOX COUPLE IN CsCl MELT
<b>CP13</b>	<u>D.A. Vetrova</u> , <u>S.A. Kuznetsov</u> INFLUENCE OF THE ALKALINE EARTH METALS CATIONS ON THE ELECTROCHEMICAL BEHAVIOR OF NIOBIUM COMPLEXES IN CHLORIDE-FLUORIDE MELT
<b>CP14</b>	<u>N.V. Olyanina</u> , <u>A.L. Bel'tyukov</u> , <u>V.I. Lad'yanov</u> COMPARISON OF MODELS, DESCRIBING CONCENTRATION DEPENDENCES OF MELTS VISCOSITY ON THE EXAMPLE OF THE Co-Si SYSTEM
<b>CP15</b>	<u>A.V. Ermakov</u> , <u>A.A. Bochegov</u> , <u>M.S. Igumnov</u> , <u>I.V. Vandysheva</u> TECHNICAL OXIDE CERAMICS WITH GRADIENT CHANNEL POROSITY

<b>CP16</b>	<u>L.M. Osipova</u> , <u>A.A. Osipov</u> FTIR, RAMAN AND MÖSSBAUER SPECTROSCOPY INVESTIGATIONS OF UNDOPED AND Fe <sub>2</sub> O <sub>3</sub> DOPED ZnO·B <sub>2</sub> O <sub>3</sub> GLASSES
<b>CP17</b>	<u>E.A. Bogdanova</u> , <u>N.A. Sabirzyanov</u> , <u>V.M. Skachkov</u> THE EFFECT OF HIGH TEMPERATURES ON THE MICROSTRUCTURE AND PROPERTIES OF FLUORINECONTAINING MATERIALS BASED ON HYDROXYAPATITE
<b>CP18</b>	<u>A.G. Tyagunov</u> , <u>E.E. Baryshev</u> , <u>G.V. Tyagunov</u> , <u>K.Y. Shmakova</u> , <u>V.S. Mushnikov</u> STRUCTURE AND PROPERTIES OF Ni-Al ALLOYS IN LIQUID STATE
<b>CP19</b>	<u>L.V. Kamaeva</u> , <u>V.D. Pepelyaeva</u> , <u>V.I. Lad'yanov</u> INFLUENCE OF LIQUID STATE OF Al-Cu-Ni MELTS ON THE CRYSTALLIZATION
<b>CP20</b>	<u>V.V. Filippov</u> , <u>A.A. Belozeroва</u> , <u>K.Yu. Shunyaev</u> , <u>B.R. Gelchinski</u> VISCOSITY OF Ga-RICH ALLOYS IN THE Ga-In-Sn SYSTEM
<b>CP21</b>	<u>E.N. Potapova</u> , <u>Y.R. Krivoborodov</u> , <u>S.V. Samchenko</u> , <u>T.V. Kouznetsova</u> EFFECT OF THE COMPOSITION AND PROPERTIES OF MELT ON THE PHASE COMPOSITION OF THE PORTLANDCEMENT CLINKER
<b>CP22</b>	<u>V.V. Pavlov</u> , <u>A.M. Potapov</u> SOLIDIFICATION AND STRENGTH OF A SOLID AS A CONSEQUENCE OF QUANTUM "FREEZING" OF ATOMIC FREEDOM DEGREES
<b>CP23</b>	<u>Z.A. Mikhaylovskaya</u> , <u>E.S. Buyanova</u> , <u>S.A. Petrova</u> , <u>J.A. Kuznetsova</u> , <u>D.V. Pyankova</u> SYNTHESIS AND PROPERTIES OF Ca/Sr <sub>1-3x</sub> Bi <sub>2x</sub> MoO <sub>4</sub> SOLID SOLUTIONS
<b>CP24</b>	<u>Z.A. Mikhaylovskaya</u> , <u>E.S. Buyanova</u> , <u>S.A. Petrova</u> SYNTHESIS AND PROPERTIES OF NEW Bi <sub>26</sub> Mo <sub>10</sub> O <sub>69</sub> -BASED ELECTROCONDUCTIVE MATERIALS
<b>CP25</b>	<u>R.W. Mkrtychyan</u> , <u>Z.C. Kadirova</u> , <u>S.S. Daminova</u> SPENT ALUMINA CATALYST IMPREGNATED BY N-, P-, S-ORGANIC LIGANDS
<b>CP26</b>	<u>R.W. Mkrtychyan</u> , <u>M.Kh. Aripova</u> REFRATORIES BASED ON PYROPHILLITE ROCK OF BAYNAKSAY DEPOSIT OF UZBEKISTAN
<b>CP27</b>	<u>T.V. Kulikova</u> , <u>V.A. Bykov</u> , <u>S.Kh. Estemirova</u> CRYSTALLIZATION KINETICS OF RAPIDLY QUENCHED Cu <sub>50</sub> Zr <sub>46</sub> Ti <sub>4</sub> GLASS-FORMING ALLOY
<b>CP28</b>	<u>V.Yu. Kolosov</u> , <u>A.A. Yushkov</u> , <u>S.V. Andreev</u> , <u>N.V. Kudrevatykh</u> , <u>D.K. Kuznetsov</u> , <u>D.S. Neznakhin</u> PECULIARITIES OF THE MICROSTRUCTURE OF RAPIDLY QUENCHED SmZrFeTi AFTER ANNEALING OBSERVED BY ELECTRON MICROSCOPY
<b>CP29</b>	<u>N.A. Zhuk</u> , <u>L.V. Rychkova</u> , <u>N.V. Chezina</u> , <u>V.P. Lutoev</u> , <u>B.A. Makeev</u> , <u>B.A. Belyy</u> , <u>S.V. Nekipelov</u> , <u>L.S. Feltsinger</u> , <u>I.E. Vasileva</u> , <u>M.V. Arteeva</u> , <u>Ya.A. Busargina</u> , <u>L.A. Koksharova</u> , <u>E.M. Overin</u> , <u>L.O. Karlova</u> , <u>A.I. Chichineva</u> PHASE TRANSITIONS, MAGNETIC PROPERTIES, NEXAFS AND EPR SPECTRA OF BiNb <sub>1-x</sub> Mn <sub>x</sub> O <sub>4-δ</sub>
<b>CP30</b>	<u>A. Ogarkov</u> , <u>S. Shevtsov</u> , <u>I. Kovalev</u> , <u>S. Kannykin</u> , <u>A. Shokodko</u> , <u>D. Prosvirnin</u> , <u>A. Chernyavskii</u> , <u>V. Ievlev</u> , <u>K. Solntsev</u> PHYSICO-CHEMICAL FUNDAMENTALS FOR HIGH-TEMPERATURE SINGLESTAGE SYNTHESIS OF COMPACT CERAMICS BASED ON ZIRCONIUM NITRIDE
<b>CP31</b>	<u>B. Rusanov</u> , <u>A. Moroz</u> , <u>V. Sidorov</u> , <u>P. Svec</u> , <u>P. Svec Sr.</u> , <u>D. Janickovic</u> , <u>E. Kramarev</u> ELECTRIC PROPERTIES AND CRYSTALLIZATION BEHAVIOR OF AL-TM-REM AMORPHOUS ALLOYS
<b>CP32</b>	<u>M.V. Chernyshov</u> , <u>A.S. Muhamadeev</u> , <u>G.L. Fofanov</u> , <u>I.B. Polovov</u> , <u>D.I. Nikitin</u> , <u>O.I. Rebrin</u> NIOBIUM ELECTROREFINING IN NaCl-KCl BASED MELTS

<b>CP33</b>	<u>A.S. Savastianova</u> , G.L. Fofanov, I.B. Polovov, A.S. Muhamadeev, V.A. Volkovich, B.D. Vasin NIOBIUM ANODIC DISSOLUTION IN ALKALI CHLORIDE MELTS: A SPECTROSCOPICAL AND ELECTROCHEMICAL STUDY
<b>CP34</b>	<u>N.I. Ilinykh</u> , I.A. Malkova THERMODYNAMIC MODELING OF COMPOSITION AND CHARACTERISTICS OF A <sup>III</sup> -B <sup>V</sup> MELTS
<b>CP35</b>	<u>G. Patronov</u> , I. Kostova, V. Sidorov SYNTHESIS AND STRUCTURE OF RARE EARTH DOPED ZINC BOROPHOSPHATE GLASSES
<b>CP36</b>	<u>Khokhryakov A.A.</u> , <u>Vershinin A.O.</u> , <u>Paivin A.S.</u> , Makarenko M.A. COORDINATING CHARACTERISTICS OF RARE-EARTH ELEMENTS IONS AND BORON ATOMS IN Na-B (SODIUM-BORON) MELTS
<b>CP37</b>	V.V. Kartashov, E.I. Denisova, <u>I.V. Chernetskiy</u> , A.V. Vlasov, I.A. Nesterova THE EFFECT OF ADDITIONS OF NANO-POWDERS ON THE PROPERTIES OF TECHNICAL OXIDE CERAMICS
<b>CP38</b>	<u>V.A. Mikhailov</u> , V.E. Sidorov, A.A. Sabirzyanov MAGNETIC PROPERTIES AND GLASS FORMING ABILITY OF CoFeBSiNb ALLOYS
<b>CP39</b>	D.A. Rozhentsev, D.O. Chukhvantsev, Ya.B. Chernov, <u>E.S. Filatov</u> , N.K. Tkachev SYNTHESIS OF ALKALINE EARTH METALS HEXABORIDES BY MOLTEN SALT ELECTROLYSIS
<b>CP40</b>	<u>V. Sidorov</u> , I. Polovov, B. Rusanov, N. Katkov, V. Mikhailov, P. Popel, K. Maksimtsev, A. Mukhamadeev, G. Patronov DENSITY, ELECTRORESISTIVITY AND MAGNETIC SUSCEPTIBILITY OF Al-Sc ALLOY BOTH IN CRYSTALLINE AND LIQUID STATES
<b>CP41</b>	E.O. Baksheev, S.V. Buynachev, D.K. Aleshin, <u>A.O. Vereschagin</u> , M.A. Mashkovtsev, A.V. Ponomarev OBTAINING MATERIALS WITH HIGHT THERMAL STABILITY BASED ON CERIUM AND ZIRCONIUM
<b>CP42</b>	E.O. Baksheev, S.V. Buynachev, D.K. Aleshin, <u>A.O. Vereshchagin</u> , M.A. Mashkovtsev SYNTHESIS OF NANOSTRUCTURED POWDERS AND DENSE Y2O3 CERAMICS FROM YTTRIUM HYDROXONITRATE (Y <sub>2</sub> (OH) <sub>5</sub> (NO <sub>3</sub> )•xH <sub>2</sub> O)
<b>CP43</b>	V.M. Ievlev, V.I. Putlayev, <u>G. S. Koçlar</u> INVESTIGATING SINTERING PARAMETERS OF DENSE AND NON-POROUS HYDROXYAPATITE CERAMICS
<b>CP44</b>	<u>S.V. Rempel</u> , A.A. Valeeva EFFECT OF HIGH TEMPERATURE ON THE PHASE COMPOSITION OF TIOY/HYDROXYAPATITE NANOCOMPOSITES
<b>SECTION D</b>	
<b>DP1</b>	<u>V.G. Pleshchev</u> , N.V. Melnikova STUDY OF THE ELECTRICAL TRANSFER IN HAFNIUM DISELENIDE INTERCALATED BY COPPER AND SILVER BY IMPEDANCE SPECTROSCOPY METHOD
<b>DP2</b>	E.V. Kirillova POTENTIAL OF MINIMUM CAPACITANCE OF NOBLE METALS IN NITRATE-CHLORIDE MELTS
<b>DP3</b>	<u>E.V. Kirillova</u> , V.P. Stepanov ELECTROWETTING OF GOLD ELECTRODE BY MOLTEN ALKALI CHLORIDES
<b>DP4</b>	<u>A.R. Kuznetsov</u> , L.E. Karkina, I.N. Karkin GRAIN-BOUNDARY PHASE STRUCTURAL TRANSITION DURING THE FORMATION OF SEGREGATIONS IN THE Al-3AT% Mg ALLOY

<b>DP5</b>	<u>N.V. Melnikova</u> , A. Mirzorakhimov, N.I. Kadyrova, I.S. Ustinova, Yu.G. Zaynulin, A.V. Tebenkov, D.O. Alikin, A.N. Babushkin TRANSPORT PROPERTIES OF CUBIC DOUBLE PEROVSKITE HIGH-PRESSURE PHASES
<b>DP6</b>	E.Yu. Pikalova, <u>V. Salnikov</u> , A.A. Murashkina, D.A. Medvedev HIGH-TEMPERATURE ELECTRICAL PROPERTIES OF $Sr_{1-x}Pr_xTi_{0.5}Fe_{0.5}O_{3-\delta} - Ce_{0.8}(Sm_{0.8}Sr_{0.2})_{0.2}O_{2-\delta}$ COMPOSITE MEMBRANES AND STABILITY IN REDUCING ATMOSPHERE
<b>DP7</b>	<u>A.V. Obrubova</u> , G.R. Salikhova, I.E. Animitsa ELECTRIC PROPERTIES OF NEW Zn-DOPED $LaAlO_3$
<b>DP8</b>	<u>S.N. Marshenya</u> , B.V. Politov, A.Yu. Suntsov, I.A. Leonidov, S.A. Petrova, M.V. Patrakeev, V.L. Kozhevnikov DEFECT EQUILIBRIUM, TRANSPORT PROPERTIES AND STRUCTURAL STABILITY OF $PrBaCo_{2-x}Al_xO_{6-\delta}$
<b>DP9</b>	<u>D.V. Korona</u> , A.V. Obrubova, A.O. Kozlyuk, I.E. Animitsa PROTON CONDUCTIVITY OF $BaCa_xLa_{1-x}InO_{4-0.5x}$ ( $x=0, 0.1, 0.2$ )
<b>DP10</b>	<u>V.V. Mesilov</u> , V.R. Galakhov, A.F. Gubkin, A.Ye. Yermakov, M.A. Uimin, G.S. Zakharova, K.O. Kvashnina, D.A. Smirnov CHARACTERIZATION OF COBALT-DOPED TITANIUM DIOXIDE NANOPOWDERS BY MEANS OF X-RAY SPECTROSCOPY AND X-RAY DIFFRACTION METHODS
<b>DP11</b>	A. Guseva, N. Pestereva, <u>D. Lopatin</u> , E. Vostrotina, N. Uvarov IONIC CONDUCTION IN COMPOSITE SOLID ELECTROLYTES $Sm_2(WO_4)_3-WO_3$
<b>DP12</b>	<u>N.A. Kochetova</u> , E.S. Matveev, I.V. Alyabysheva, I.E. Animitsa EUTECTIC COMPOSITES BASED ON COMPLEX OXIDES WITH PROTON CONDUCTIVITY
<b>DP13</b>	<u>G.S. Partin</u> , Yu.A. Bateko, N.A. Kochetova, I.E. Animitsa COMPOSITE EFFECT PHENOMENON IN HETEROGENEOUS DOPED $La_2Mo_2O_9$ (LAMOX-FAMILY PHASES)
<b>PD14</b>	<u>N.P. Kulik</u> , V.P. Stepanov POTENTIAL AT THE INTERFACE IN THE TWO-LIQUID-PHASE MOLTEN SALTS
<b>DP15</b>	E. Pikalova, <u>L. Vedmid</u> , S. Pikalov, E. Filonova, A. Murashkina, J. Lyagaeva HIGH TEMPERATURE BEHAVIOR OF Ca-SUBSTITUTED LAYERED NICKELATES $Ln_{2-x}Ca_xNiO_4$ ( $Ln = Pr, Nd$ )
<b>DP16</b>	<u>A.R. Gilev</u> , E.A. Kiselev, V.A. Cherepanov OXYGEN IONIC AND ELECTRONIC TRANSPORT IN $La_{2-x}Sr_xNi_{1-y}Fe_yO_{4+\delta}$ CATHODE MATERIALS FOR SOFCs
<b>DP17</b>	<u>I.L. Ivanov</u> , D.S. Tsvetkov, A.Yu. Zuev OXYGEN TRANSPORT IN $NdBaCo_2O_{6-d}$
<b>DP18</b>	<u>N.V. Shikina</u> , E.V. Bessudnova, V.A. Ushakov, A.P. Nikitin, Z.R. Ismagilov A STUDY OF THE EFFECT OF CERIA ON THE PROPERTIES OF NANOSTRUCTURED RUTILE
<b>DP19</b>	<u>A.A. Krylov</u> , Yu.V. Emelyanova, M.V. Morozova, E.S. Buyanova SYNTHESIS AND TRANSPORT CHARACTERISTICS OF COMPOSITE MATERIALS BASED ON BIFEVOX
<b>DP20</b>	<u>A.A. Krylov</u> , Yu.V. Emelyanova, E.S. Buyanova, S.A. Petrova STRUCTURE AND TRANSPORT PROPERTIES OF BISMUTH NIOBATE $Bi_3Nb_{1-x}Er_xO_{7-\delta}$
<b>DP21</b>	<u>E.A. Kiselev</u> , A.R. Gilev, V.A. Cherepanov DEFECT STRUCTURE AND CHARGE TRANSFER PHENOMENA IN $La_2NiO_4$ -BASED MATERIALS



<b>DP22</b>	V.Yu. Kolosov , A.A. Yushkov, L.M. Veretennikov, A.O. Bokuniaeva ANTIMONY FILM EXPOSIVE CRYSTALLISATION STUDED BY TRANSMISSION ELECTRON MICROSCOPY USING THE BEND-CONTORS ATLAS
<b>DP23</b>	V.V. Filippov, D.A. Yagodin, K.Yu. Shunyaev ELECTRICAL RESISTIVITY OF Cu–Zr ALLOYS
<b>DP24</b>	R.A. Apakashev, M.L. Khazin, N.G. Valiev MECHANICAL PROPERTIES OF MICROSTRUCTURED COPPER FOILS
<b>DP25</b>	H. Renner, V. Linseis, K. Nielsch MEASUREMENT OF PHYSICAL PROPERTIES ON PVD AND CVD COATINGS
<b>SECTION E</b>	
<b>EP1</b>	E.L. Boytsova, L.A. Leonova, V.S. Sypchenko THERMAL STABILITY OF Ti-O-N FILMS
<b>EP2</b>	N.M. Tanklevskaya, G.G. Mikhailov PHASE EQUILIBRIA IN THE CRYSTALLIZING Fe–Ca–Mn–Cr–Si–Al–V–S–C–O MELTS
<b>EP3</b>	E. Popova, P. Kotenkov, I. Gilev FORMATION OF METASTABLE ALUMINIDES IN Al–Hf–Sc (Ti) ALLOYS
<b>EP4</b>	J.S. Cramer, O. Lesage, D. Morvan, F. Prima, F. Rousseau THERMAL PLASMA EXTRACTIVE METALLURGY FOR E-WASTE RECYCLING
<b>EP5</b>	A.I. Zaitsev, N.A. Arutyunyan NANOSTRUCTURING – AN EFFECTIVE METHOD TO IMPROVE THE COMPLEX OF PROPERTIES OF STEELS FOR HOT STAMPING
<b>EP6</b>	V.A. Salina, V.I. Zhuchkov, O.V. Zayakin THE STUDY OF THE PROCESSES OF PRODUCING ALLOYS OF THE SYSTEM Fe-Si-Ni-Cr BY THE METHOD OF THERMODYNAMIC MODELING
<b>EP7</b>	M.Yu. Mychinko, E.I. Zyaykin, N.E. Volkova, V.A. Cherepanov CRYSTAL AND DEFECT STRUCTURE OF THE DOUBLE PEROVSKITES SmBaCo <sub>2-x</sub> Fe <sub>x</sub> O <sub>6-δ</sub> (x=0, 0.6)
<b>EP8</b>	N.A. Sabirzyanov, S.A. Bibanaeva, V.M. Skachkov HIGH TEMPERATURE LEACHING OF RED MUD OF ALUMINOUS PRODUCTION
<b>EP9</b>	V.M. Skachkov, B.V. Ovsyanikov, L.A. Pasechnik, N.A. Sabirzyanov, S.P. Yatsenko HIGH TEMPERATURE REACTION AT INJECTION INTRODUCTION OF ALLOYING ELEMENTS IN ALUMINUM MELT
<b>EP10</b>	L. Vedmid, E. Zhilina, S. Krasikov , A. Merkushev EXPERIMENTAL ESTIMATION OF TITANIUM AND GADOLINIUM OXIDES INTERACTION PECULIARITIES WITH ALUMINUM
<b>EP11</b>	N.A. Vatolin, A.M. Amdur, V.V. Pavlov, S.A. Fedorov THE MECHANISM OF FLOTATION OF DISPERSED METAL DROPLETS IN OXIDE MELTS
<b>EP12</b>	A.V. Larionov, R.I. Gulyaeva, L.Yu. Udоеva, V.M. Chumarev EFFECT OF Y AND Sc ON THE THERMAL STABILITY OF SILICIDE PHASE IT Nb-Si AND Mo-Si In-SITU COMPOSITES
<b>EP13</b>	S.N. Agafonov, A.A. Ponomarenko, A.S. Russkih THERMODYNAMIC ANALYSIS OF THE JOINT ALUMINOTHERMIC REDUCTION of ZrO <sub>2</sub> and Nb <sub>2</sub> O <sub>5</sub>
<b>EP14</b>	N.E. Volkova, M.Yu. Mychinko, I.B. Golovachev, A.E. Makarova, V.A. Cherepanov STRUCTURE AND PROPERTIES OF LAYERED PEROVSKITES Ba <sub>1-x</sub> Ln <sub>x</sub> Fe <sub>1-y</sub> Co <sub>y</sub> O <sub>3-δ</sub> (Ln = Pr, Sm, Gd)
<b>EP15</b>	A. Rakhmatullin, E. Veron, I.B. Polovov, M. Allix, D. Maltsev, A.V. Chukin, R. Bakirov, C. Bessada THE HIGH-TEMPERATURE POLYMORPHS OF Cs <sub>3</sub> ScF <sub>6</sub>

<b>EP16</b>	<u>V.V. Karpov</u> , A.V. Abramov, K.V. Dedov, A.V. Shak, A.Yu. Zhlyakov, I.B. Polovov, S.V. Belikov, O.I. Rebrin CORROSION OF VARIOUS TYPES OF STAINLESS STEELS IN CHLORALUMINATE MELTS
<b>EP17</b>	<u>K.V. Dedov</u> , A.F. Gibadullina, I.B. Polovov, A.Yu. Zhlyakov, V.A. Khotinov, S.V. Belikov, P.A. Kharin, O.I. Rebrin STRUCTURE, MECHANICAL AND THERMOPHYSICAL PROPERTIES OF THE NEW ALLOY KhN62M
<b>EP18</b>	A.Yu. Zhlyakov, <u>A.V. Abramov</u> , V.V. Karpov, A.F. Gibadullina, S.V. Belikov, I.B. Polovov, A.A. Popov INCREASE OF CORROSION RESISTANCE OF NICKEL-BASED SUPERALLOYS IN CONTACT WITH MOLTEN SALTS BY COMBINED HEAT AND MECHANICAL TREATMENT
<b>EP19</b>	<u>A.Yu. Zhilyakov</u> , A.V. Abramov, S.V. Belikov, K.V. Dedov, V.V. Karpov, I.B. Polovov, O.I. Rebrin CORROSION OF AISI 316L STAINLESS STEEL PRODUCED BY SELECTIVE LASER MELTING
<b>EP20</b>	<u>A.F. Gibadullina</u> , I.B. Polovov, F.E. Tarasov, A.S. Bychkov, A.V. Shak, A.Yu. Zhlyakov, S.V. Belikov, O.I. Rebrin HEAT TREATMENT OF NICKEL-BASED CORROSION-RESISTANT SUPERALLOYS USING INDUCTION HEATING
<b>EP21</b>	<u>A.Yu. Zhlyakov</u> , A.F. Gibadullina, I.V. Ilikbaev, I.B. Polovov, S.V. Belikov THE ASSOCIATION BETWEEN SHORT AND LONG RANGE ORDERING WITH PHYSICAL PROPERTIES OF CORROSION-RESISTANT ALLOYS OF THE Ni-Cr-Mo SYSTEM
<b>EP22</b>	<u>E. Nikitina</u> , N. Kazakovtseva, E. Karfidov, M. Maikov THE EFFECT OF CERIUM (III), NEODYMIUM (III) AND URANIUM (III) CHLORIDES ON THE CORROSION OF STEEL 16Cr12MoWSiVNbB
<b>EP23</b>	<u>E. Nikitina</u> , N. Kazakovtseva, E. Karfidov, M. Maikov INVESTIGATION OF CORROSION-ELECTROCHEMICAL BEHAVIOR OF NICKELS ALLOY IN MELTS OF CARBONATES
<b>EP24</b>	<u>E. Nikitina</u> , N. Kazakovtseva, E. Karfidov, M. Maikov ELECTROCHEMICAL SELECTIVE DISSOLUTION OF COPPER ALLOYS IN MOLTEN SALT ELECTROLYTES FOR THE PRODUCTION OF MESOPOROUS MATERIALS
<b>EP25</b>	S.G. Kuptsov, V.P. Pleshchev, E.A. Nikonenko, R.S. Magomedova, E.V. Nikitina SPARK HARDENING OF HIGH-STRENGTH ALUMINUM ALLOY
<b>EP26</b>	<u>Yu. Korobov</u> , V. Shymiakov, M. Filippov, S. Nevezhin, G. Tkachuk, A. Makarov, N. Soboleva, I. Malygina, R. Savrai ANALYSIS OF VARYING THE CONTENT OF Al, Si in Fe-C-Cr-B-Y CORED WIRES ON THE PROPERTIES OF ARC SPRAYED COATINGS IN HIGH-TEMPERATURE APPLICATIONS
<b>EP27</b>	<u>Md. Motin Seikh</u> , V. Caignaert, O. Perez, B. Raveau, V. Hardy SINGLE-ION MAGNETISM, SINGLE-CHAIN MAGNETISM AND LONGRANGE ORDERING IN TRIANGULAR SPIN CHAIN OXIDES $Sr_{4-x}Ca_xMn_2CoO_9$
<b>EP28</b>	<u>S. Sinyova</u> , R. Starykh, L. Tsymbulov DETERMINATION OF LIQUIDUS TEMPERATURES OF HIGH-MAGNESIA SLAGS USING METHODS OF THERMAL ANALYSIS AND THERMODYNAMIC CALCULATIONS
<b>EP28 (EO6)</b>	A.L. Udovskiy, <u>D.A. Vasilyev</u> THE APPLICATION OF QUANTUM MECHANICAL CALCULATIONS TO DETERMINE THE DIFFERENCES IN THE STRUCTURAL ENERGIES OF THE COMPONENTS AND THE FORMATION ENERGY OF THE FERROMAGNETIC LAVES PHASE $Fe_2Mo$

## SECTION G

<b>GP1</b>	K. Jiang, Y. Yan, M. Zhang, D. Cao, <u>J. Wang</u> , V. Smolenski, A. Novoselova ELECTROCHEMICAL MIX-REDUCTION SYNTHESIS OF INTERMETALIC COMPOUNDS U AND U-Fe ALLOY
<b>GP2</b>	N.M. Barbin, <u>M.R. Shavaleev</u> , D.I. Terentyev, S.G. Alexeev THERMODYNAMIC MODELING OF URANIUM BEHAVIOR IN HEATING RADIOACTIVE GRAPHITE IN THE ATMOSPHERE OF NITROGEN
<b>GP3</b>	<u>N.M. Barbin</u> , T.S. Kolbin, S.G. Alekseev, D.I. Terent'ev THERMODYNAMIC MODELING OF RADIONUCLIDE TRACES DURING THE COMBUSTION OF RADIOACTIVE GRAPHITE IN OXYGEN ATMOSPHERE
<b>GP4</b>	<u>N.M. Barbin</u> , I.A. Sidash, D.I. Terent'ev, S.G. Alekseev COMPUTER MODELING OF THERMAL PROCESSES WITH PARTICIPATION OF CS DURING HEATING OF RADIOACTIVE GRAPHITE IN THE ATMOSPHERE OF CARBON DIOXIDE
<b>GP5</b>	<u>N.M. Barbin</u> , A.M. Kobelev, D.I. Terent'ev, S.G. Alekseev, S.E. Shheklein, O.L. Tashlykov COMPUTER MODELING OF THERMAL PROCESSES INVOLVING Cs DURING HEATING OF RADIOACTIVE GRAPHITE IN WATER VAPOR
<b>GP6</b>	A.B. Salyulev, <u>A.M. Potapov</u> , V.A. Khokhlov, V.Yu. Shishkin ELECTRICAL CONDUCTIVITY OF MULTICOMPONENT MOLTEN MIXTURES BASED ON LiCl-KCl, USED FOR SPENT NUCLEAR FUEL PROCESSING
<b>GP7</b>	<u>E. Suzuki</u> , K. Nakajima, M. Osaka, Y. Ohishi, H. Muta, K. Kurosaki THERMODYNAMIC PROPERTY OF CESIUM – SILICATES
<b>GP8</b>	V.E. Krotov, E.S. Filatov THE METHOD FOR CRYSTALLINE CATHODIC UO <sub>2</sub> -ThO <sub>2</sub> , UO <sub>2</sub> -PuO <sub>2</sub> , AND UO <sub>2</sub> -ZrO <sub>2</sub> DEPOSITS FORMATION
<b>GP9</b>	<u>D.S. Maltsev</u> , V.A. Volkovich, E.V. Raguzina, K.E. Strepetov, A.A. Kozlova, M.N. Soldatova ON THE SEPARATION OF URANIUM AND ZIRCONIUM IN 3LiCl-2KCl BASED MELTS
<b>GP10</b>	A.B. Ivanov, V.A. Volkovich, V.V. Suhyh FORMATION OF RARE EARTH PHOSPHATES IN THE MELTS BASED ON THE EQUIMOLAR MIXTURE NaCl-KCl
<b>GP11</b>	D.I. Terent'ev, A.A. Sushkevich MODELING OF EFFECTS FROM MIXING IN THE MELT OF THE Pb-Bi EUTECTIC USING THE MODEL OF ASSOCIATED SOLUTIONS
<b>GP12</b>	A.A. Ryzhov, A.B. Ivanov, V.A. Volkovich ELECTROCHEMICAL PROPERTIES OF TUNGSTEN IN ALKALI CHLORIDE BASED MELTS
<b>GP13</b>	A.V. Schetinskiy, A.S. Dedyukhin, E.A. Kharina, V.A. Volkovich, L.F. Yamshchikov ACTIVITY COEFFICIENTS OF LANTHANUM IN GALLIUM-ALUMINUM BASED ALLOYS
<b>GP14</b>	<u>E.A. Kharina</u> , R.Yu. Kaychenkova, A.S. Dedyukhin, A.V. Shchetinskiy, L.F. Yamshchikov, V.A. Volkovich THERMODYNAMICS OF RARE EARTH CHLORIDES IN LiCl-KCl-CsCl EUTECTIC BASED MELTS

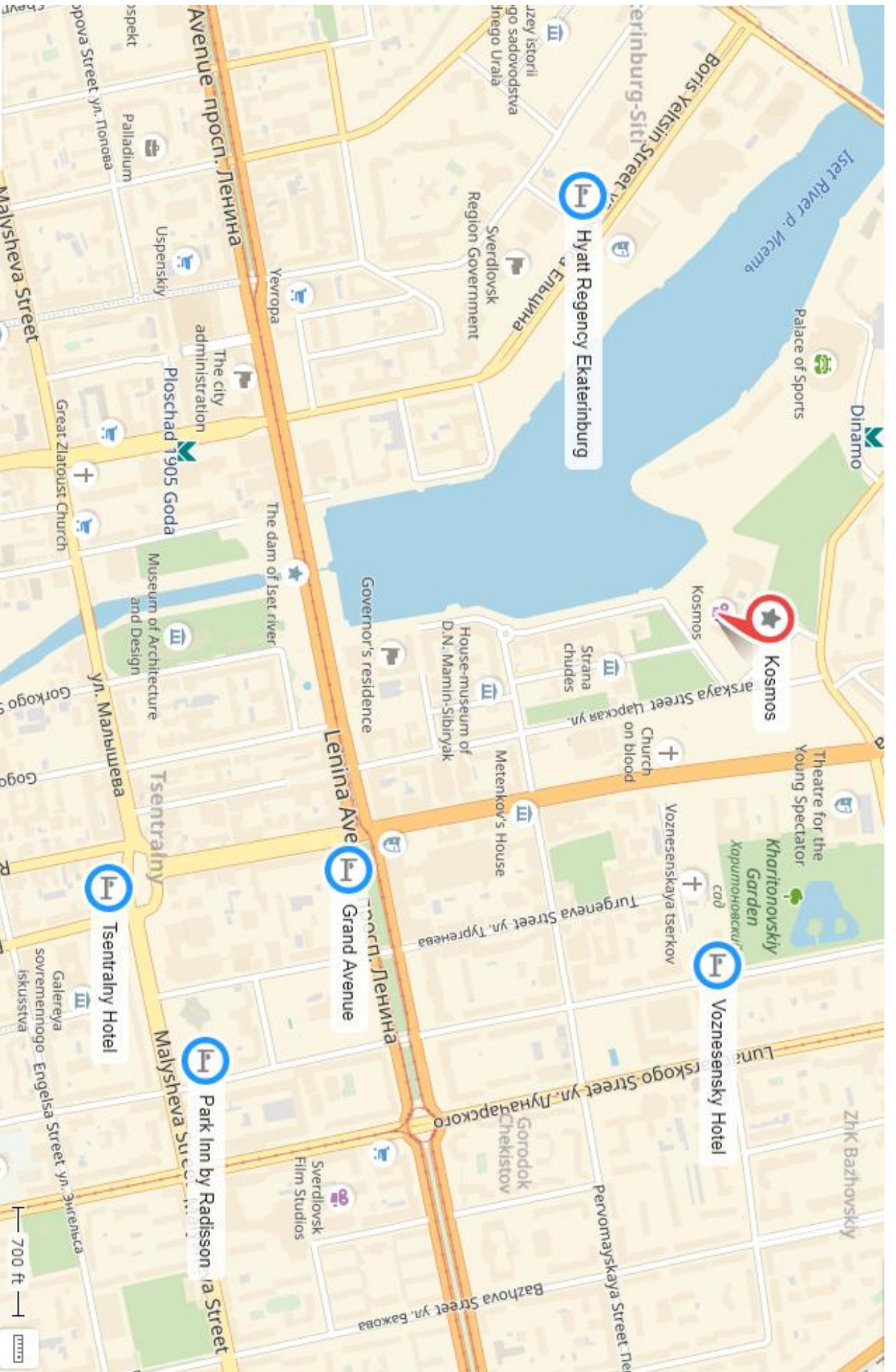
## SECTION H

<b>HP1</b>	V. Malikov, A. Ishkov, S. Dmitriev, A. Sagalakov RESEARCH MATERIALS AND STRUCTURES OF SPACE VEHICLES BY MULTIFREQUENCY MEASURING SYSTEM ON THE BASIS OF EDDY CURRENT TRANSDUCERS
<b>HP2</b>	<u>V.M. Skachkov</u> , V.L. Kozevnikov, L.A. Pasechnik, N.A. Sabirzyanov, S.P. Yatsenko THE STUDY OF THE FORMATION OF COMPOSITE BASED ON THE GALLIUM ALLOY MATRIX

<b>HP3</b>	<u>V.A. Kostilev, L.I. Leontiev, V.L. Lisin, S.A. Petrova, A.V. Varaksin</u> ELECTROCHEMICAL SYNTHESIS OF NANO- AND ULTRA-DISPERSED POWDERS OF METAL CARBIDES, BORIDES AND SILICIDES
<b>HP4</b>	<u>M.S. Syrtanov, N.S. Pushilina, V.N. Kudiiarov, G.V. Garanin, E.B. Kashkarov</u> THE DEVELOPMENT OF THE SYSTEM FOR THERMODYNAMIC PROCESSES OF PHASE TRANSITIONS IN HYDROGEN ATMOSPHERE
<b>HP5</b>	<u>K.V. Maksimtsev, A.V. Krylosov, A.S. Muhamadeev, I.B. Polovov, A.V. Chukin, A.Yu. Zhlyakov, O.I. Rebrin, A. Rakhmatullin</u> THE NOVEL METHOD FOR MANUFACTURING Al-REE AND Al-Sc MASTER ALLOYS
<b>HP6</b>	<u>K.I. Lugovaya, A.A. Popov, M.A. Zhilyakova, N.A. Popov</u> THE INFLUENCE OF ALLOYING AND HEAT TREATMENT CONDITIONS ON THE HEAT RESISTANCE OF TITANIUM ALLOYS
<b>HP7</b>	<u>G.J. Albertsson, U. Palmqvist, R. Selwood</u> ULTRA FINE GOLD COATED WIRES FOR SATELLITE ANTENNAS AND TECHNICAL RESEARCH
<b>SECTION I</b>	
<b>IP1</b>	<u>Mohd Shamoon Asmat, Qayyum Husain</u> FACILE SYNTHESIS OF BIOCATALYST BASED ON POLYANILINE-COATED SILVER FUNCTIONALIZED GRAPHENE OXIDE NANOCOMPOSITE IMMOBILIZED LIPASE
<b>IP2</b>	<u>S.I. Sadovnikov</u> EFFECT OF PARTICLE SIZE AND COMPOSITION ON THERMAL EXPANSION OF SEMICONDUCTOR $Pb_xCd_{1-x}S$ NANOCOMPOSITE
<b>IP3</b>	<u>S.I. Sadovnikov</u> THERMAL EXPANSION OF SILVER SULFIDE WITH DIFFERENT PARTICLE SIZE AT A TEMPERATURE OF 300-970 K
<b>IP4</b>	<u>A. Mostovshchikov, A. Ilyin, P. Chumerin</u> INCREASING OF THE STORED ENERGY IN ALUMINUM NANOPOWDER BY THE MICROWAVE IRRADIATION
<b>IP5</b>	<u>S. Ricote, B. Kee, D. Curran, J. Porter, R. J. Kee</u> HYDROGEN COMPRESSION WITH PROTONIC-CERAMIC MEMBRANES
<b>IP6</b>	<u>I.B. Dorosheva, I.A. Weinstein, A.A. Rempel</u> ELECTROCHEMICAL AND SOL-GEL SYNTHESIS OF NANOSTRUCTURED TITANIA PHOTOCATALYST ACTING UNDER SUNLIGHT
<b>IP7</b>	<u>V. Gil'derman</u> ELECTROPHYSICAL PROPERTIES OF CATHODE MATERIALS $(Pr_{1-x}La_x)_{2-y}Sr_yNi_{1-z}Cu_zO_4$ FOR INTERMEDIATE-TEMPERATURE SOLID OXIDE FUEL CELLS
<b>IP8</b>	<u>A.V. Soloninin, A.V. Skripov, O.A. Babanova, R.V. Skoryunov, V. Stavila, M. Dimitrievska, T.J. Udovic</u> ANION AND CATION DYNAMICS IN SUPERIONIC CONDUCTORS BASED ON LITHIUM CLOSO-POLYBORATES: NMR STUDIES
<b>IP9</b>	<u>O.A. Babanova, R.V. Skoryunov, A.V. Soloninin, A.V. Skripov, Y. Sadikin, M. Brighi, R. Černý</u> ANION AND CATION DYNAMICS IN MIXED-ANION HYDROBORATE $Na_3(BH_4)(B_{12}H_{12})$
<b>IP10</b>	<u>O.S. Kaimieva, A.V. Yushkov, E.S. Buyanova, S.A. Petrova</u> THE INVESTIGATION OF THE STRUCTURE AND PROPERTIES OF $Bi_{3-x}M_xNbO_7$
<b>IP11</b>	<u>N.S. Tsvetkova, D.S. Tsvetkov, A.Yu. Zuev</u> SWEDENBORGITE-TYPE OXIDES $YBaCo_{4-x}Zn_xO_{7+d}$ ( $x = 0.8, 1$ ) AS CATHODE MATERIALS FOR IT-SOFCs







**HTMC-XVI conference is supported by  
Russian Foundation for Basic Research  
(Project No. 18-03-20034-r)**



## Sponsors

### Silver



### Bronze

