

# RUSSIAN INTERNATIONAL CONFERENCE ON CHEMICAL THERMODYNAMICS

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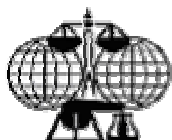


## CONFERENCE PROGRAM

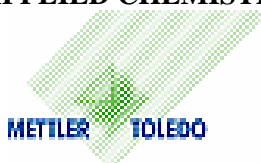
**Moscow 2005**



WITH FINANCIAL SUPPORT OF:



INTERNATIONAL UNION OF PURE  
AND APPLIED CHEMISTRY



METTLER TOLEDO



SIGMA-ALDRICH



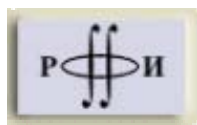
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"IUPAC sponsorship implies that entry visas will be granted to all bona fine chemists provided application is made not less three months in advance. If a visa is not granted one month before the meeting, the IUPAC Secretariat should be notified without delay by the applicant."

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## TIME SCHEDULE

<b>Time</b>	<b>June 27, Monday</b>
10 <sup>00</sup> - 18 <sup>00</sup>	<p data-bbox="1182 539 1357 571" style="text-align: center;"><b><u>Registration</u></b></p> <p data-bbox="1093 612 1447 715" style="text-align: center;"><b>Moscow State University Department of Chemistry Ground Floor</b></p>
18 <sup>00</sup>	<p data-bbox="1167 799 1373 831" style="text-align: center;"><b>Welcome party</b></p>

<b>Time</b>		<b>June 28, Tuesday</b>				
9 <sup>30</sup> -9 <sup>45</sup>		<b>Opening Ceremony</b>				
<b>Plenary Lectures</b>						
9 <sup>45</sup> -10 <sup>15</sup>		PL-1				
10 <sup>15</sup> -10 <sup>45</sup>		PL-2				
10 <sup>45</sup> -11 <sup>15</sup>		PL-3				
11 <sup>15</sup> -11 <sup>45</sup>		<i>Coffee Break</i>				
11 <sup>45</sup> -12 <sup>15</sup>		PL-4				
12 <sup>15</sup> -12 <sup>45</sup>		PL-5				
12 <sup>45</sup> -13 <sup>05</sup>		<b>Presentation of the IUPAC representative (Prof. Trevor Letcher)</b>				
13 <sup>05</sup> -14 <sup>30</sup>		<i>Lunch</i>				
<b>Work of Sections</b>						
	<b>Section 1</b> (oral lectures)	<b>Section 2</b> (oral lectures)	<b>Section 3</b> (oral lectures)	<b>Section 4</b> (oral lectures)	<b>Section 5</b> (oral lectures)	
14 <sup>30</sup> -14 <sup>50</sup>	OI-21	OII-2	OIII-22	OIV-1	OV-26	
14 <sup>50</sup> -15 <sup>10</sup>	OI-20	OII-3	OIII-30	OIV-6	OV-14	
15 <sup>10</sup> -15 <sup>30</sup>	OI-2	OII-4	PIII-123	OIV-8	OV-8	
15 <sup>30</sup> -15 <sup>50</sup>	OI-9	OII-5	PIII-128	OIV-10	OV-7	
15 <sup>50</sup> -16 <sup>20</sup>	<i>Coffee Break</i>					
	<b>Section 1</b> (oral lectures)	<b>Section 2</b>	<b>Section 3</b> (oral lectures)	<b>Section 4</b> (oral lectures)	<b>Section 5</b> (oral lectures)	
16 <sup>20</sup> -16 <sup>40</sup>	OI-35	Poster Session	OIII-33	OIV-5	OV-3	
16 <sup>40</sup> -17 <sup>00</sup>	OI-26		OIII-8	OIV-11	OV-25	
17 <sup>00</sup> -17 <sup>20</sup>	OI-16		OIII-9	OIV-17	OV-17	
17 <sup>20</sup> -17 <sup>40</sup>	OI-33		PIII-56	OIV-18		
17 <sup>40</sup> -18 <sup>00</sup>				OIV-7		

**Time****June 29, Wednesday**

<b>Plenary Lectures</b>					
9 <sup>30</sup> - 10 <sup>00</sup>	PL-9				
10 <sup>00</sup> - 10 <sup>30</sup>	PL-10				
10 <sup>30</sup> - 11 <sup>00</sup>	PL-11				
11 <sup>00</sup> -11 <sup>30</sup>	<i>Coffee Break</i>				
<b>Work of Sections</b>					
	<b>Section 1</b> (oral lectures)	<b>Section 2</b> (oral lectures)	<b>Section 3</b>	<b>Section 4</b> (oral lectures)	<b>Section 5</b> (oral lectures)
11 <sup>30</sup> -11 <sup>50</sup>	OI-27	OII-6	Poster Session	OIV-2	OV-4
11 <sup>50</sup> -12 <sup>10</sup>	OI-28	OII-7		OIV-4	OV-13
12 <sup>10</sup> -12 <sup>30</sup>	OI-29	OII-8		OIV-26	OV-10
12 <sup>30</sup> -12 <sup>50</sup>	OI-30	PII-44		OIV-27	OV-16
12 <sup>50</sup> -14 <sup>30</sup>	<i>Lunch</i>				
	<b>Section 1</b> (oral lectures)	<b>Section 3</b> (oral lectures)	<b>Section 4</b> (oral lectures)	<b>Section 5</b> (oral lectures)	<b>Seminar</b>
14 <sup>30</sup> -14 <sup>50</sup>	OI-8	OIII-13	OIV-30	OV-23	Mettler Group
14 <sup>50</sup> -15 <sup>10</sup>	OI-34	OIII-25	OIV-33	PV-81	
15 <sup>10</sup> -15 <sup>30</sup>	OI-31	OIII-21	OIV-34	OV-21	
15 <sup>30</sup> -15 <sup>50</sup>	OI-10	OIII-15	OIV-28	OV-18	
15 <sup>50</sup> -16 <sup>20</sup>	<i>Coffee Break</i>				
	<b>Section 1</b> (oral lectures)	<b>Round Table 1</b>	<b>Section 3</b> (oral lectures)	<b>Section 4</b>	<b>Section 5</b> (oral lectures)
16 <sup>20</sup> -16 <sup>40</sup>	OI-24	“Development of thermochemistry in M.V.Lomonosov Moscow State University”	PIII-7	Poster Session	OV-19
16 <sup>40</sup> -17 <sup>00</sup>	OI-25		OIII-2		OV-20
17 <sup>00</sup> -17 <sup>20</sup>	OI-14		OIII-17		OV-2
17 <sup>20</sup> -17 <sup>40</sup>	OI-5		OIII-7		OV-6
17 <sup>40</sup> -18 <sup>00</sup>					
19 <sup>00</sup>	<b>Moskva River Round Trips</b>				



**Time****June 30, Thursday**

<b>Plenary Lectures</b>						
9 <sup>30</sup> -10 <sup>00</sup>	PL-6					
10 <sup>00</sup> -10 <sup>30</sup>	PL-7					
10 <sup>30</sup> -11 <sup>00</sup>	PL-8					
11 <sup>00</sup> -11 <sup>30</sup>	<i>Coffee Break</i>					
<b>Work of Sections</b>						
	<b>Section 1</b> (oral lectures)	<b>Section 2</b> (oral lectures)	<b>Section 3</b> (oral lectures)	<b>Section 4</b> (oral lectures)	<b>Section 5</b> (oral lectures)	
11 <sup>30</sup> -11 <sup>50</sup>	OI-13	OII-9	OIII-3	OIV-3	OV-1	
11 <sup>50</sup> -12 <sup>10</sup>	OI-3	OII-10	OIII-6	OIV-9	OV-11	
12 <sup>10</sup> -12 <sup>30</sup>	OI-23	OII-11	PIII-25	OIV-13	OV-5	
12 <sup>30</sup> -12 <sup>50</sup>	OI-22	OII-12	OIII-16	OIV-20	OV-9	
12 <sup>50</sup> -13 <sup>10</sup>	OI-15	OII-13	OIII-20	OIV-22	OV-12	
13 <sup>10</sup> -14 <sup>30</sup>	<i>Lunch</i>					
	<b>Presentations of Co<sup>o</sup></b>	<b>Section 1</b> (oral lectures)	<b>Section 2</b> (oral lectures)	<b>Section 3</b> (oral lectures)	<b>Section 4</b> (oral lectures)	
14 <sup>30</sup> -14 <sup>50</sup>	Setaram Instrumentation	OI-7	OII-14	OIII-34	OIV-14	
14 <sup>50</sup> -15 <sup>10</sup>	Waters Ges.m.b.H.	OI-1	OII-15	OIII-35	OIV-15	
15 <sup>10</sup> -15 <sup>30</sup>	Intertech Corporation	OI-18	OII-16	OIII-18	OIV-16	
15 <sup>30</sup> -15 <sup>50</sup>	Sigma-Aldrich	OI-11	OII-17	OIII-32	OIV-32	
15 <sup>50</sup> -16 <sup>20</sup>	<i>Coffee Break</i>					
	<b>Section 1</b>	<b>Section 2</b> (oral lectures)	<b>Section 3</b> (oral lectures)	<b>Section 4</b> (oral lectures)	<b>Section 5</b>	<b>Round Table 2</b>
16 <sup>20</sup> -16 <sup>40</sup>	Poster Session	OII-22	OII-1	OIV-12	Poster Session	«Nanothermodynamics»
16 <sup>40</sup> -17 <sup>00</sup>		OII-23	OIII-14	OIV-19		
17 <sup>00</sup> -17 <sup>20</sup>		OII-24	OIII-29	OIV-25		
17 <sup>20</sup> -17 <sup>40</sup>			OIII-28	OIV-24		
17 <sup>40</sup> -18 <sup>00</sup>			PIII-29	OIV-29		

**Time****July 1, Friday**

<b>Work of Sections</b>			
	<b>Section 1</b> (oral lectures)	<b>Section 2</b> (oral lectures)	<b>Section 3</b> (oral lectures)
9 <sup>30</sup> -9 <sup>50</sup>	OI-4	OII-18	OIII-26
9 <sup>50</sup> -10 <sup>10</sup>	OI-12	OII-19	OIII-19
10 <sup>10</sup> -10 <sup>30</sup>	OI-17	OII-20	PIII-104
10 <sup>30</sup> -10 <sup>50</sup>	OI-19	OII-21	OIII-10
10 <sup>50</sup> -11 <sup>20</sup>	<i>Coffee Break</i>		
<b>Plenary Lectures</b>			
11 <sup>20</sup> -11 <sup>50</sup>	PL-12		
11 <sup>50</sup> -12 <sup>20</sup>	PL-13		
12 <sup>20</sup> -12 <sup>50</sup>	PL-14		
12 <sup>50</sup> -13 <sup>20</sup>	PL-15		
13 <sup>20</sup> -14 <sup>20</sup>	<b>Awarding of the Winners, General Discussion, Closing</b>		
14 <sup>20</sup>	<i>Lunch</i>		
18 <sup>00</sup>	<b>Conference Dinner</b>		

## PLENARY SESSIONS

### June 28

9<sup>45</sup> – 10<sup>15</sup>

(PL-1) THERMODYNAMIC APPROACHES IN MATERIALS CHEMISTRY

Tretyakov Yu.D.

10<sup>15</sup> – 10<sup>45</sup>

(PL-2) SOME THERMODYNAMIC PROPERTIES OF NEAR-CRITICAL SYSTEMS

O'Connell J.P.

10<sup>45</sup> – 11<sup>15</sup>

(PL-3) QUASICRYSTALS AND THE RELATED CRYSTALS THEIR LATTICE VIBRATION AND PHASE TRANSITION

Inaba A.

11<sup>45</sup> – 12<sup>15</sup>

(PL-4) HIGH-PRESSURE PHASE BEHAVIOUR OF ASYMMETRIC SYSTEMS: SOME EXAMPLES OF INDUSTRIAL IMPORTANCE

Th.W. de Loos

12<sup>15</sup> - 12<sup>45</sup>

(PL-5) THERMODYNAMIC PROPERTIES AND PHASE EQUILIBRIA OF ALLOY SYSTEMS RELEVANT FOR LEAD-FREE SOLDERING

Ipser H., Flandorfer H.

12<sup>45</sup> – 13<sup>15</sup>

PRESENTATION OF THE IUPAC REPRESENTATIVE

Letcher T.

### June 29

9<sup>30</sup> – 10<sup>00</sup>

(PL-9) NEW APPROACH TO EQUATION OF STATE

Rusanov A.I.

10<sup>00</sup> – 10<sup>30</sup>

(PL-10) THERMODYNAMIC MODELING OF MULTICOMPONENT IONIC MELTS

Dectero S.A.

10<sup>30</sup> – 11<sup>00</sup>

(PL-11) EXTENSIONS OF LATTICE-FLUID EQUATION OF STATE TO PROTEIN AND ELECTROLYTE SYSTEMS

Chul Soo Lee, Ki-Pung Yoo

### June 30

9<sup>30</sup> - 10<sup>00</sup>

(PL-6) THE SWELLING OF NONIONIC AND IONIC ACRYLAMIDE HYDROGELS IN AQUEOUS SOLUTIONS

Maurer G.

10<sup>00</sup> - 10<sup>30</sup>

(PL-7) MODELING OF MESOSCALE STRUCTURE OF SURFACTANT SOLUTIONS: MOLECULAR THERMODYNAMIC APPROACH AND COMPUTER SIMULATIONS

Smirnova N.A.

10<sup>30</sup> - 11<sup>00</sup>

(PL-8) TECHNICAL FEATURED AND UNIQUE FEATURES OF THE MODERN HEAT FLUX DSC

Schawe J., Averkiev S.

**July 1**

**11<sup>20</sup> - 11<sup>50</sup>**

**(PL-12)** A NEW FIELD OF MODERN THERMODYNAMICS - NONEQUILIBRIUM NONDISSIPATIVE THERMODYNAMICS

Wang J.-T.

**11<sup>50</sup> - 12<sup>20</sup>**

**(PL-13)** PHASE TRANSITIONS IN THE GLASS-FORMING SYSTEMS UNDER NEGATIVE PRESSURE: THEORY, PREDICTION OF ANOMALOUS EFFECTS, EXPERIMENT

Landa L., Landa K., Thomsen S.

**12<sup>20</sup> - 12<sup>50</sup>**

**(PL-14)** PROGRESSES IN POLYMER THERMODYNAMICS BY SCANNING TRANSITIOMETRY

Grolier J-P. E.

**12<sup>50</sup> - 13<sup>20</sup>**

**(PL-15)** NEW PARADIGM IN THERMODYNAMIC DATA COMMUNICATIONS

Frenkel M.

### **ROUND TABLE 1**

**”The Thermochemical School in Moscow State University.”**

**June 29**

**16<sup>20</sup> - 18<sup>00</sup>**

**1)** PROFESSOR S.M.SKURATOV'S CENTENARY

Varushchenko R.M., Kolesov V.P.

**2)** COMBUSTION CALORIMETRY AND FORMATION ENTHALPIES OF ELEMENTORGANIC SUBSTANCES

Miroshnichenko E.A., Varushchenko R.M.

**3)** THE HISTORY OF DEVELOPING OF THERMOCHEMISTRY IN RUSSIA: LIFE AND WORK OF PROF. V.SVENTOSLAVSKII, AKAD. I.A.KABLUKOV, PROF. M.M.POPOV, PROF. S.M.SKURATOV, AKAD. V.P.GLUSHKO, PROF. K.P.MISHCHENKO.

Vorob'ev A.F.

**4)** THE CALORIMETRIC SCHOOL IN MEI-IVTAN

Popov V.N., Sychev V.V., Fokin L.P.

### **ROUND TABLE 2**

**”Nanothermodynamics”**

**June 30**

**16<sup>20</sup> - 18<sup>00</sup>**

**1)** NANOTHERMODYNAMICS: PHASE AND CHEMICAL APPROACH

Rusanov A.I.

**2)** THERMODYNAMIC MODELING IN THE STUDIES OF NANOSTRUCTURED “SOFT” MATERIALS

Smirnova N.A.

**3)** MELTING OF NANOCLUSTERS AND ROLE OF CLUSTER INTERACTIONS

Suzdalev I.P.

**4)** LAYERED COMPOUNDS AND LAYERED HETERONANOSTRUCTURES

Gusarov V.V.

### **SECTION 1.**

**”General Topics of Chemical Thermodynamics”**

**ORAL SESSIONS**

**June 28**

**14<sup>30</sup> - 14<sup>50</sup>**

**(OI-21)** GENERALIZATION OF THE SECOND LAW OF THERMODYNAMICS AND A LOCAL UNIFORMITY HYPOTHESIS

Serdyukov S.I.

**14<sup>50</sup> - 15<sup>10</sup>**

**(OI-20)** STATISTICAL THERMODYNAMICS OF CONDENSED SYSTEMS — EXACT RESULTS  
Zakharov A. Yu.

**15<sup>10</sup> - 15<sup>30</sup>**

**(OI-2)** THE PHASE TRANSITION SINGULARITIES AS THEY FOLLOW FROM THE INTEGRAL EQUATION LIQUID STATE THEORY  
Sarkisov G.

**15<sup>30</sup> - 15<sup>50</sup>**

**(OI-9)** APPROXIMATE EQUATIONS OF STATE OF ONE-COMPONENT SUBSTANCE  
Kaplun A.B., Meshalkin A.B.

**16<sup>20</sup> - 16<sup>40</sup>**

**(OI-35)** CAN THERMODYNAMIC DATA HELP US TO DEVELOP NEW SOLDER MATERIALS?  
Mikula A.

**16<sup>40</sup> - 17<sup>00</sup>**

**(OI-26)** FLUCTUATIONS IN LIQUID SYSTEMS: THERMODYNAMIC POTENTIALS OF THE NON-EQUILIBRIUM STATES, RELAXATION, AND SCATTERING PHENOMENA  
Durov V.A.

**17<sup>00</sup> - 17<sup>20</sup>**

**(OI-16)** MODIFIED MARCELIN DE DONDE EQUATIONS FOR KINETICS OF ONE- AND TWO-STAGES REVERSIBLE CHEMICAL REACTIONS IN NON IDEAL CONDENSED PHASES  
Povarov V.G., Sokolova O.B.

**17<sup>20</sup> - 17<sup>40</sup>**

**(OI-33)** GEOMETRIC MODEL OF SUPERCONDUCTING METAL STATE  
Shablovsky Ya.O.

### June 29

**11<sup>30</sup> - 11<sup>50</sup>**

**(OI-27)** “VOLUME - BASED” THERMODYNAMICS (V.B.T.) – A NEW APPROACH TO THERMODYNAMICS.  
Jenkins H.D.B.

**11<sup>50</sup> - 12<sup>10</sup>**

**(OI-28)** THEORY AND MODELING OF DIFFUSION COEFFICIENTS IN MULTICOMPONENT MIXTURES  
Medvedev O.O., Shapiro A.A.

**12<sup>10</sup> - 12<sup>30</sup>**

**(OI-29)** MOLECULAR SIMULATIONS OF AQUEOUS FLUIDS: STANDARDIZATION OF THERMODYNAMIC DATA  
Svishchev I.M., Plugatyr A.Y.

**12<sup>30</sup> - 12<sup>50</sup>**

**(OI-30)** STUDY THERMOCHEMICAL PROPERTIES OF UF<sub>4</sub> BY USING VARIOUS DENSITY FUNCTIONAL AND BASIS  
Lu Chunhai, Chen Wenkai, Bai Yun, Wang Huasheng

**14<sup>30</sup> - 14<sup>50</sup>**

**(OI-8)** THERMODYNAMIC DRIVING FORCES OF SOLID STATE MECHANOCHEMICAL SYNTHESIS OF PHASES  
Kaloshkin S.D., Tomilin I.A., Tcherdyntcev V.B.

**14<sup>50</sup> - 15<sup>10</sup>**

**(OI-34)** TOPOLOGICAL IMAGES OF MULTICOMPONENT HETEROGENEOUS SYSTEMS  
Naumov A.V.

**15<sup>10</sup> - 15<sup>30</sup>**

**(OI-31)** THE SECOND LAW AND BIOLOGICAL EVOLUTION  
Gladyshev G.P.

15<sup>30</sup> - 15<sup>50</sup>

(OI-10) SPATIAL MANAGEMENT ON HETEROPHASIC PROCESSES

Kolesnikov A.A., Zevatsky J.E., Zarembo V.I.

16<sup>20</sup> – 16<sup>40</sup>

(OI-24) EXTRACTION IN STRONG CENTRIFUGAL FIELD

Abakumov G.A., Fedoseev V.B.

16<sup>40</sup> – 17<sup>00</sup>

(OI-25) OPTIMAL ADSORBENT OF WATER FOR ADSORPTION HEAT PUMPS: THERMODYNAMIC ANALYSIS

Aristov Yu.I.

17<sup>00</sup> – 17<sup>20</sup>

(OI-14) SOLUTION OF SOME PROBLEMS FOR CHEMICAL EQUILIBRIA PREDICTION

Nesterov I.A., Vodenkova N.N., Stepanov V.N., Novozhenina T.P.

17<sup>20</sup> – 17<sup>40</sup>

(OI-5) CALCULATIONS OF PHASE DIAGRAMS BY MEANS OF CONVEX HULLS

Belov G.V., Emelina A.L., Uspenskaia I.A., Voronin G.F.

**June 30**

11<sup>30</sup> – 11<sup>50</sup>

(OI-13) THERMODYNAMIC OF DEFECTS AND CHARGE TRANSFER IN DOPED PEROVSKITE-TYPE COBALTITES OF RARE-EARTH METALS

Petrov A.N.

11<sup>50</sup> – 12<sup>10</sup>

(OI-3) THERMODYNAMIC PROPERTIES OF ACTINIDE NITRIDES

Gorokhov L.N., Bergman G.A., Gusarov A.V., Shenyavskaya E.A., Yungman V.S.

12<sup>10</sup> – 12<sup>30</sup>

(OI-23) THERMODYNAMIC MODELLING AND CALCULATION OF CONDITIONS OF FORMATION AND STABILITY OF CARBIDE PHASES OF CEMENT TYPE IN IRON-ALLOYS.

Zaitsev A.I., Shaposhnikov N.G., Rodyonova I.G., Kazennov N.V.

12<sup>30</sup> – 12<sup>50</sup>

(OI-22) QUANTUM-CHEMICAL COMPUTATIONS OF THERMODYNAMIC PROPERTIES OF GAS PHASE REACTIONS IN CHEMICAL VAPOR DEPOSITION PROCESSES

Timoshkin A.Y.

12<sup>50</sup> – 13<sup>10</sup>

(OI-15) COMPUTER SIMULATIONS OF TITANIUM DIOXIDE CLUSTERS WITH RUTILE AND ANATASE STRUCTURE IN THE WIDE TEMPERATURE RANGE

Filukov D.V., Piotrovskaya E.M., de Leeuw S.W.

14<sup>30</sup> – 14<sup>50</sup>

(OI-7) MODERN TRENDS OF CHEMICAL THERMODYNAMICS DATABASES DEVELOPMENT

Iorish V.S., Yungman V.S.

14<sup>50</sup> – 15<sup>10</sup>

(OI-1) THERMOPHYSICAL PROPERTIES OF HALOGEN-SUBSTITUTED N-ALKANES: SEARCH FOR THE INFORMATION, ITS EVALUATION AND COMPILING INTO A DATABASE.

Bolotnikov M.F., Neruchev Yu.A.

15<sup>10</sup> – 15<sup>30</sup>

(OI-18) THE ROLE OF CHEMICAL THERMODYNAMICS IN BIOCHEMICAL DISCIPLINES TEACHING

Antina E.V., Rumyantsev E.V.

15<sup>30</sup> – 15<sup>50</sup>

(OI-11) PHASE DIAGRAMS COMPUTER PRACTICAL EXPERIENCE

Lutsyk V.I.

## July 1

9<sup>30</sup> - 9<sup>50</sup>

(OI-4) ESTIMATION OF A PRIORI UNCERTAINTY FOR AB INITIO CALCULATIONS OF THE THERMOCHEMICAL VALUES. DISSOCIATION ENERGY OF MOLECULE ZNO AS AN EXAMPLE.

Gusarov A.V., Iorish V.S.

9<sup>50</sup> - 10<sup>10</sup>

(OI-12) THERMODYNAMIC INVESTIGATIONS IN BINARY MELTS OF ALKALI METALLS (AM) TAKING INTO ACCOUNT ATOMS, ASSOCIATES AND METASTABLE "SMALL" CLUSTERS.

Moiseev G.K.

10<sup>10</sup> - 10<sup>30</sup>

(OI-17) SUBLIMATION ENTHALPY DETERMINATION ON THE BASIS OF CRYSTAL STRUCTURE DATE

Pushkin D.V., Serezhkin V.N., Serezhkina L.B., Shevchenko A.P.

10<sup>30</sup> - 10<sup>50</sup>

(OI-19) MOLECULAR DYNAMICS STUDY OF NANODROPLETS CRYSTALLIZATION

Samsonov V.M., Pushkar M.Yu., Dronnikov V.V., Kharechkin S.S., Barbasov R.P.

## POSTER SESSION

## June 30

16<sup>20</sup> - 18<sup>00</sup>

(OI-32) IONS HYDRATION ENTHALPY

Ryabukhin A.G.

(PI-1) STRUCTURE AND THERMODYNAMIC PROPERTIES OF LIQUID SILICA DETERMINED BY COMPUTER MODELLING WITH BELION'S ALGORITHM

Belashchenko D.K., Ostrovski O.I.

(PI-2) THERMODYNAMIC REACTORS IN THE PROGRAM "CHEMICAL VERSTAK"

Belov G.V.

(PI-3) QUANTUM-CHEMICAL SIMULATION OF ANNULAR SILICON-OXIGEN ANION Si<sub>6</sub>O<sub>18</sub><sup>12-</sup>

Gogol D.B., Bissengaliyeva M.R., Agelmenev M.E., Bekturganov N.S.

(PI-4) VIBRATIONAL FREQUENCIES IN SERIES OF TETRAHEDRON SILICON-OXIGEN POLYANIONS

Gogol D.B., Bissengaliyeva M.R., Agelmenev M.E., Bekturganov N.S.

(PI-5) TEMPERATURE DEPENDENCE OF THE HEAT CAPACITY AND INTERNAL ENERGY OF WATER. MOLECULAR DYNAMICS SIMULATION STUDY.

Ved' O.V., Antipova M.L., Borovkov A.V., Petrenko V.E.

(PI-6) THE ESTIMATION OF THE AQUEOUS SOLVATION PARAMETERS OF THE NEUTRAL AND CHARGED PARTICLES BY THE COMPUTER MODELING OF THE HYDRATE COVER IN THE NEAREST COORDINATION SPACE

Vigasina M.F., Orlov R.Yu.

(PI-7) THE PROTON'S AQUEOUS SOLVATED TOTAL ENERGY CALCULATION AND IT'S APPLICATION FOR DISSOCIATION CONSTANT ESTIMATION

Vigasina M.F., Orlov R.Yu.

(PI-8) THE CALCULATION OF THE FORMATION THERMODYNAMIC POTENTIALS FOR THE GAS MOLECULES WITH USING THE TOTAL ENERGY OF CRYSTAL RELATED SUBSTANCES

Vigasina M.F., Orlov R.Yu.

(PI-9) ASYMPTOTES OF THE SPLINE APPROXIMATION OF EXPERIMENTAL DATA ON LOW TEMPERATURE CALORIMETRY

Voronin I.A., Chernyavskiy L.I., Titov V.A.

(PI-10) THE ADSORPTION OF SULPHUR OXIDE (IV) ON A SPHERICAL DROP IN THE RINGED CLEARANCE OF THE HEAT EXCHANGE APPARATUS

Dozorov V.A., Dozorov R.V., Platonov N.I.

**(PI-11)** CONFORMATIONAL STATE AND THERMODYNAMIC FUNCTIONS OF VINYL ETHERS  
Roganov G.N., Emel'yanenko V.N., Volkova E.S., Pisarev P.N.

**(PI-12)** THERMODYNAMIC CALCULATIONS OF ENERGY-ECOLOGICAL PARAMETERS OF HYDROCARBONS COMBUSTION IN OXYGEN-NITROGEN MIXTURES.  
Zaitsev A.K., Volkov M.N.

**(PI-13)** STATISTICAL THERMODYNAMICS OF SYSTEMS WITH VARIABLE VALENCIES OF ONE OF THE COMPONENTS  
Zakharov A.Yu., Zakharov M.A., Udovsky A.L., Oonk H.A.J.

**(PI-14)** TO A QUESTION ON STANDARTIZING OF CONSTANTS OF COMPLEX FORMATION EQUILIBRIUMS IN NON-ELECTROLYTE SYSTEMS  
Zakharova S.P., Rummyantsev E.V., Antina E.V.,

**(PI-15)** PHASE TRAJECTORIES OF THERMODYNAMIC PARAMETERS AT ELECTRIC POLARIZATION OF GASES  
Zevatsky J.E., Kolesnikov A.A., Zarembo V.I.

**(PI-17)** THERMODYNAMIC PROPERTIES OF PLATINUM GROUP ELEMENTS  
Karzhavin V.K.

**(PI-16)** SOME PROBLEMS OF INVESTIGATION OF IONIC LIQUIDS' THERMODYNAMIC PROPERTIES  
Kabo G.J., Paulechka Y.U., Strechan A.A.

**(PI-18)** STATISTICAL THERMODYNAMIC DESCRIPTION OF SPIN CROSSOVER EQUILIBRIUM IN THE SOLID STATE  
Koudriavtsev A.B., Linert W., Jameson R.F.c

**(PI-19)** PHASE EQUILIBRIA IN CARBIDE-FORMED SYSTEMS Ti – C, V - C AND Ta - C  
Lipatnikov V.N.

**(PI-20)** THERMODYNAMIC DESCRIPTION OF THE  $Nd_{1+x}Ba_{2-x}Cu_3O_{6+z}$  PHASE  
Lysenko V.A.

**(PI-21)** THERMODYNAMIC CALCULATIONS OF THE FORMATION OF SOLID SOLUTIONS OF METAL SULFIDES DURING HYDROCHEMICAL PRECIPITATION WITH THIOAMIDES  
Ivanov P.N., Maskaeva L.N., Markov V.F., Stepanovskikh E.I.

**(PI-22)** QUANTUM MECHANICAL CALCULATIONS USAGE FOR INTERPRETATION OF NANODISPERSE METALL CONTAINED POWDERS IR SPECTRA  
Chulovskaya S.A., Milejev M.A., Parfenyuk V.I.

**(PI-23)** THERMODINAMIC STABILITY EVALUATION OF BORON NITRIDE CLUSTERS USING COMPUTER EXPERIMENT  
Milejev M.A., Kuzmin S.M., Parfenyuk V.I.

**(PI-24)** THE THERMODYNAMIC PROPERTIES OF BINARY SYSTEMS OF ALKALI METALS AT HIGH TEMPERATURES  
Mozgovoi A.G., Skovorod'ko S.N., Roshchupkin V.V., Pokrasin M.A.

**(PI-25)** THERMODYNAMIC PROPERTIES AND FUNCTIONS OF INORGANIC COMPOUNDS RECEIVED WITH THE USE OF UNEMPIRICAL METHODS (BD. ASTRA.OWN).  
Moiseev G.K., Ilynich N.I., Kulikova T.V.

**(PI-26)** THERMODYNAMIC SIMULATION (TS) INTO INORGANIC SYSTEMS. REVIEW OF INVESTIGATIONS IN INSTITUTE OF METALLURGY URAL DIVISION OF RAS IN PERIOD FROM 1978 UP TO 2004 JEARS.  
Moiseev G.K., Vatin N.A.

**(PI-27)** TWO APPROACHES TO THE DETERMINATION OF PHASE CONCEPT OF THERMODYNAMIC SYSTEM  
Naumov A.V.



**(PI-28)** UNIVERSAL DESCRIPTION OF EXPERIMENTAL HEAT CAPACITY OF SOLIDS, COMPONENTS OF A VARIED NATURE

Naumov V.N., Frolova G.I., Nemov N.A., Bespyatov M.A.

**(PI-29)** RESEARCH OF THE THERMODYNAMIC DESCRIPTION OF TEMPERATURE DIVISION OF GAS WITH USE OF DISCRETE PARAMETERS

Nekofar K.H., Maikov V.P.

**(PI-30)** STUDY AND PREDICTION OF THE VAPOUR PRESSURES AND CRITICAL (VAPOUR-LIQUID) PROPERTIES OF ORGANIC COMPOUNDS

Nesterov I.A., Nesterova T.N., Novozhenina T.P., Leolko A.S.

**(PI-31)** THE METHOD OF THE CONSECUTIVE ANALYSIS OF CHEMICAL EQUILIBRIA AND ITS APPLICATION FOR THE BLOOD ANTICOAGULANTS SEARCH.

Nikolaeva L.S., Mamontov M.N., Dobrynina N.A., Lapina L.A., Pastorova V.E.

**(PI-32)** SUBSTITUTED ADAMANTAN: ISOMER ENUMERATION AND SCHEMES OF PROPERTIES CALCULATION

Nilov D.Yu., Sokolov D.V., Smolyakov V.M.

**(PI-33)** IDEAL GAS THERMODYNAMIC PROPERTIES OF SOME ALKYLADAMANTANES.

Pimerzin A.A.

**(PI-34)** SUBSTITUENT EFFECTS IN ORTHO, META, AND PARA DIHALO-BENZENES FROM THERMOCHEMICAL MEASUREMENTS AND AB INITIO CALCULATIONS

Melkhanova S.V., Popov A.A., Verevkin S.P.

**(PI-35)** MATHEMATICAL MODELS AND SOFTWARE PACKAGE FOR ORGANIC COMPOUNDS ENERGY CHARACTERISTICS PREDICTION AND THEIR RADICAL DISSOCIATION

Repin A., Turovtzev V., Orlov Yu., Lebedev Yu.

**(PI-36)** ASSESMENT OF CONSISTENSY AND RELIABILITY OF ENTHALPIES OF FORMATION OF ALIPHATIC ALCOHOLS

Roganov G.N., Pisarev P.N., Emel'yanenko V.N., Verevkin S.P.

**(PI-37)** EFFECTIVE IONIC RADII SYSTEM

Ryabukhin A.G.

**(PI-38)** QUANTUM-CHEMICAL COMPUTATIONS OF THERMODYNAMIC PARAMETERS OF URETANS' THERMAL DECOMPOSITION BASED ON THE 2,4 TOLUYLENDIIZOCYANATE

Samuilov A.Ya., Kurdyukov A.I., Zenitova L.A., Palyutin F.M., Samuilov Ya.D.

**(PI-39)** INDIFFERENT CONDITIONS IN CHEMICAL THERMODYNAMICS

Samujlov E.V.

**(PI-40)** THERMODYNAMIC VALUES SELECTION FOR THE SOLUTION OF THE PROBLEM OF THE TOXIC ELEMENTS MIGRATION IN ENVIRONMENT

Sergeyeva E.I., Devina O.A., Khodakovskiy I.L.

**(PI-41)** EXPERIMENTAL AND CALCULATED STUDY OF PES FOR OXO COMPOUNDS AND HYDROGEN PEROXIDE REACTIONS

Serebrennikov L.V., Golovkin A.V.

**(PI-42)** THE FLUOROABILITY SCALE OF HIGH VALENCY TRANSITIONAL METALS FLUORIDES

Serov M.G., Leskiv M.S., Goryunkov A.A.

**(PI-43)** FULLERENES [C60] – [C100]: ENUMERATION OF EXOHEDRAL SUBSTITUTION ISOMERS AND SCHEMES OF THERMODYNAMICAL PROPERTIES ESIMATION

Sokolov D.V., Nilov D.Yu., Smolyakov V.M.

**(PI-44)** THE THERMODYNAMIC SIMULATION OF THE PLASMA CHEMICAL COMPOSITION AT THE PULSED ELECTRON BEAM INJECTION

Sosnovskij S.A., Vlasov V.A., Pushkarev A.I., Remnev G.E.

**(PI-45) THERMODYNAMIC APPROACH FOR OPTIMIZATION OF POLYCRYSTALLINE SILICON PRODUCTION UNDER INCREASED PRESSURE**

Titov V.A., Sysoev S.V., Titov A.A., Chernyavskiy L.I., Borisova L.A.

**(PI-46) A THEORETICAL CALCULATION OF THE THERMODYNAMIC CHARACTERISTICS OF SOME AMIDES**

Tautova E.N., Yerkasov R.Sh., Omarova R.A.

**(PI-47) THE COVARIANT FORM OF EQUATIONS SET FOR EQUILIBRIA PHASES AND IT APPLICATION FOR DEVELOPMENT OF GENERALIZED CALCULATED METHOD OF TIE-LINES OF CLOSED MULTICOMPONENT SYSTEMS**

Udovsky A.L.

**(PI-48) ON THE AXIOMATIC OF THERMODYNAMICS**

Fedorov P.P.

**(PI-49) ON THE DEFINITION OF A PHASE (TO THE 50 YEARS OF DISCUSSION BETWEEN A.V. STORONKIN AND V.Ya. ANOSOV)**

Fedorov P.P.

**(PI-50) PROBLEMS OF TEACHING THERMODYNAMICS**

Fedorov P.P., Drobot D.V.

**(PI-51) THERMODYNAMIC SURFACES AT MONOCOMPONENT PHASE EQUILIBRIA**

Shablovsky Ya.O.

**(PI-52) THERMODYNAMIC ASPECTS OF CALCULATION OF THE EQUILIBRIUM CONSTANT FOR THE REVERSIBLE LIQUID-PHASE REACTIONS**

Shuklov A.D., Novikov E.F., Lebedev Ju.,

**(PI-53) THE ENTHALPIES OF FUNCTIONALIZED CALIX[4]RESORCINARENES FORMATION**

Altshuler O.H.

**(PI-54) CHEMICAL THERMODYNAMICS EDUCATION: BREAKING FROM CONVENTIONAL MODELS INTO CREATIVE APPROACHES**

Haghi A.K., Ghanadzadeh H.

**(PI-55) MOLECULAR DYNAMICS STUDY OF THE MONOCLINIC PHASES OF HYDROXY- AND CHLORAPATITE.**

Cruz F.J.A.L., Canongia Lopes J.N., Minas da Piedade M.E., Calado J.C.G.

**(PI-56) THE NEW NONPARAMETRIC SCALE EQUATION OF THE CRITICAL STATE OF A LIQUID**

Martynets V.G., Bezverkhy P.P., Matizen E.V.

**(PI-57) CONVERSION AND VISUALIZATION OF THERMODYNAMIC DATABASES USING C++ AND COMPONENT OBJECT MODEL (COM)**

Chorażewski M., Skrzypek M., Kehiaian H.V.

**(PI-58) RELATIONSHIPS OF EQUIVALENCE AND ORDERING IN THE CLASSES OF THERMODYNAMIC SYSTEMS**

Naumov A.V.

**SECTION 2.**

**”Individual Substances”**

**ORAL SESSIONS**

**June 28**

**14<sup>30</sup> – 14<sup>50</sup>**

**(OII-2) THERMODYNAMIC STABILITY OF THE PrC<sub>2</sub> AND PrC<sub>4</sub> MOLECULES: AN EXPERIMENTAL AND COMPUTATIONAL STUDY**

Balducci G., Brutti S., Ciccioli A., Gigli G., Nunziante Cesaro S., Rau G.V., De Maria G.

14<sup>50</sup> – 15<sup>10</sup>

(OII-3) HEAT CAPACITIES, COMPRESSIBILITIES, SPEED OF ULTRASOUND AND INTERNAL PRESSURE FOR 1,3-, 2,3-BUTANEDIOL AND 2-METHYL-2,4-PENTANEDIOL AS FUNCTION OF TEMPERATURE

Zorębski E.

15<sup>10</sup> - 15<sup>30</sup>

(OII-4) THERMODYNAMIC STUDY OF THE SUBLIMATION OF THE BENZENEDICARBOXYLIC ACIDS AND OF THEIR MONO-METHYL ESTERS

Manuel J. S. Monte, Carlos A. D. Sousa

15<sup>30</sup> - 15<sup>50</sup>

(OII-5) ENERGETICS OF HYDROXYBENZOIC ACID, HYDROXYACETOPHENONE AND HYDROXYABENZALDEHYDE ISOMERS

Minas da Piedade M.E., Bernardes C.E.S., Pinto S.S., Diogo H.P.

#### June 29

11<sup>30</sup> - 11<sup>50</sup>

(OII-6) THERMOLYSIS AND THERMOCHEMISTRY OF 1,3,3-TRINITROAZETIDINE

LI Ji-zhen, FAN Xue-zhong, ZHANG Guo-fang, HU Rong-zu, PAN Qing, ZHANG Wei

11<sup>50</sup> - 12<sup>10</sup>

(OII-7) THERMODYNAMIC ESTIMATION OF STABILITY OF POLYMERIC INORGANIC COMPOUNDS

Aldabegenov M.K., Balakaeva G.T.

12<sup>10</sup> - 12<sup>30</sup>

(OII-8) THE SCANNING CALORIMETER FOR THE HEAT-CAPACITY MEASUREMENT IN THE TEMPERATURE RANGE FROM 270 TO 700 K

Kabo A.G., Blokhin A.V.

12<sup>30</sup> - 12<sup>50</sup>

(PII-44) RELATIONSHIP BETWEEN THE INTERNAL PRESSURE AND COHESIVE ENERGY DENSITY OF LIQUIDS

Kolker A.M., Korolev V.P., Batov D.V.

#### June 30

11<sup>30</sup> – 11<sup>50</sup>

(OII-9) THE COMPLEX DETERMINATION OF THE THERMODYNAMIC PROPERTIES OF SOME ORGANIC COMPOUNDS FROM HELIUM TO CRITICAL TEMPERATURES

Varushchenko R.M., Druzhinina A.I., Pashchenko L.L., Dorofeeva O.V.

11<sup>50</sup> – 12<sup>10</sup>

(OII-10) THE DEVELOPMENT OF ADDITIVE METHOD FOR CALCULATION OF THERMOCHEMICAL PROPERTIES OF ORGANIC SUBSTANCES.

Kizin A.N., Lebedev Yu.A.

12<sup>10</sup> – 12<sup>30</sup>

(OII-11) THERMODYNAMICS OF CLATHRATE FORMATION OF CALIX[n]ARENES WITH VAPOR ORGANIC COMPOUNDS

Ziganshin M.A., Yakimov A.V., Yakimova L.S., Validova L.R., Stoikov I.I., Solovieva S.E., Antipin I.S., Gorbachuk V.V.

12<sup>30</sup> – 12<sup>50</sup>

(OII-12) THERMODYNAMICS OF FORMATION FOR TERNARY SULFIDES  $MeLn_2S_4$  AND SOLID SOLUTIONS ON THEIR BASIS

Kalinina L.A., Ushakova Ju.N., Medvedeva O.V., Shirokova G.I., Fominych E.G.

12<sup>50</sup> – 13<sup>10</sup>

(OII-13) PHASE TRANSITIONS AND MECHANISM OF STRUCTURAL HETEROGENEITY FORMATION IN SUPERCONDUCTORS OF  $(R)Ba_2Cu_3O_{6+x}$  SYSTEM

Naumov V.N., Matskevich N.I., Frolova G.I., Stenin Yu.G., Anikeeva O.B.

14<sup>30</sup> – 14<sup>50</sup>

(OII-14) THERMODYNAMIC PROPERTIES OF BaLn<sub>2</sub>O<sub>4</sub> (Ln = Sm, Dy, Ho)  
Vakhovskaya Z.S., Kovba M.L., Dobrokhotova Zh.V., Uspenskaya I.A.

14<sup>50</sup> – 15<sup>10</sup>

(OII-15) INVESTIGATIONS OF THE THERMOCHEMICAL PROPERTIES OF INTERMETALLIDES IN THE Al - Ce AND Al - La SYSTEMS  
Kulikova T.V., Ilynych N.I., Moiseev G.K., Shunjaev K.Ju., Bykov V.A., Gornov O.A., Sidorov V.E.

15<sup>10</sup> – 15<sup>30</sup>

(OII-16) MODELING AND EXPERIMENTAL STUDY OF THE SYNTHESIS PROCESSES AND STABILITY REGIONS OF HIGH CONDUCTIVE BIMEVOX PHASES.  
Emelyanova Yu.V., Zhukovsky V.M., Shafigina R.R., Pozdnyakova O.S., Buyanova E.S., Moiseev G.K.

15<sup>30</sup> – 15<sup>50</sup>

(OII-17) CHEMICAL THERMODYNAMICS OF URANYL COMPOUNDS  
Knyazev A.V., Chernorukov N.G., Smirnova N.N., Vlasova E.V., Vlasov R.A., Gur'eva T.A., Ershova A.V., Marochkina M.N., Sazhina Yu.S.

16<sup>20</sup> – 16<sup>40</sup>

(OII-22) THERMODYNAMIC PROPERTIES OF CHROMIUM TRICHLORIDE SUBLIMATION  
Titov V.A., Chusova T.P., Grinberg E.E.

16<sup>40</sup> – 17<sup>00</sup>

(OII-23) LOW-TEMPERATURE CALORIMETRY OF MOLECULAR CRYSTAL POLYMORPHS  
Drebushchak V.A., Kovalevskaya Yu.A., Paukov I.E., Boldyreva E.V.

17<sup>00</sup> – 17<sup>20</sup>

(OII-24) CALORIMETRIC STUDY OF ALKALI METAL SALTS WITH COMPLEX FLUORINE-CONTAINING ANIONS  
Gavrichiev K.S., Sharpataya G.A., Gorbunov V.E., Khoroshilov A.V., Golushina L.N., Plakhotnik V.N.

#### July 1

9<sup>30</sup> - 9<sup>50</sup>

(OII-18) THERMODYNAMICS AND AMORPHIZATION OF NICKEL WITH LANTHANUM ALLOYS.  
Zaitsev A.I., Zaitseva N.E., Arutyunyan H.A., Dunaev S.F.

9<sup>50</sup> - 10<sup>10</sup>

(OII-19) ZrO<sub>2</sub> NANOPARTICLES TRANSFORMATION AT HEATING. EXPERIMENTAL STUDY AND THERMODYNAMIC MODELLING  
Almjasheva O.V., Gusarov V.V.

10<sup>10</sup> - 10<sup>30</sup>

(OII-20) DENSITY OF LIQUID HAFNIUM FROM THE MELTING POINT UP TO BOILING POINT UNDER ATMOSPHERIC PRESSURE (EXPERIMENT)  
Korobenko V.N., Savvatimskiy A.I.

10<sup>30</sup> – 10<sup>50</sup>

(OII-21) THERMODYNAMICS OF GASEOUS SALTS OF 3d-ELEMENTS  
Shugurov S.M., Lopatin S.I.

#### POSTER SESSION

#### June 28

16<sup>20</sup> - 18<sup>00</sup>

(PII-1) DEPENDENCE OF COPPER MELT VISCOSITY ON TEMPERATURE BY THE CHAOTICAL PARTICLES CONCEPT  
Abdrahmanov B.T.

(PII-2) GENERATION OF NEGATIVE IONS IN THE SATURATED VAPOR OVER THE NaF–AlF<sub>3</sub> SYSTEM AND ION-MOLECULAR EQUILIBRIUM STUDIES  
Abramov S.V., Chilingarov N.S., Sidorov L.N.

**(PII-3)** EXPERIMENTAL RESEARCH AND MODELLING THE THERMODYNAMIC PROPERTIES OF MAGNESIUM SILICATES.

Zaitsev A.I., Arutyunyan H.A., Shaposhnikov N.G., Zaitseva N.E.

**(PII-4)** THERMODYNAMIC PROPERTIES OF 1-AMINOADAMANTANE

Bazyleva A.B., Blokhin A.V., Kabo G.J.

**(PII-5)** KINETIC AND THERMODYNAMIC PROPERTIES FOR HYDRODEMETHALLIZATION OF HEAVY OIL (REPUBLIC OF KAZAKHSTAN)

Baikenov M.I., Khalitova A.I., Moldybaev O., Kudryashova V.S., Musina G.N.

**(PII-6)** EQUIPMENT FOR MEASURING THE CLEAN METHANE MELTING CURVE WITH THE AIM TO DEFINE BY CRYOMETRIC METHOD THE TOTAL CONTENT OF IMPURITIES IN METHANE

Alexandrov Yu.I., Beliakov V.I., Varganov V.P.

**(PII-7)** THE HEAT CAPACITY OF IRON (II) COMPLEX COMPOUNDS WITH 1,2,4-TRIAZOLE

Berezovsky G.A., Pishchur D.P., Bushuev M.B., Lavrenova L.G.

**(PII-8)** CORRELATION OF THE THERMODYNAMIC AND STRUCTURAL PROPERTIES OF TRIS-b-DIKETONATES OF METALS

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**(PII-9)** THE INVESTIGATION OF TEMPERATURE DEPENDENCE OF DIELECTRIC PERMITTIVITY OF 1-CHLOROHEXANE, 1-IODOHEXANE, 1-IODOHEPTANE AND 1-CHLORONONANE.

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#### **”Solutions and Melts”**

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### **”Heterogeneous Systems”**

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**June 28**

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**(OIV-6)** AN ALGORITHM OF CALCULATION OF PHASE DIAGRAMS BASED ON METHOD OF CONVEX HULL AND SOFTWARE PACKAGE PhDi

Belov G.V., Voronin G.F., Goriacheva V.I., Emelina A.L., Uspenskaya I.A.

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**(OIV-8)** AN EXTENDED PHASE DIAGRAM FOR A SIMPLE SUBSTANCE (computer experiment)

Baidakov V.G., Protsenko S.P.

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**(OIV-10)** PHASE RELATIONS AND P-T-X DIAGRAMS OF SYSTEMS  $\text{Ln}_2\text{S}_3 - \text{LnS}_2$  (Ln =La-Nd, Gd-Er)

Vasilyeva I.G.

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**(OIV-5)** PHASE DIAGRAMS OF MANGANESE OXIDES AND 4-f ELEMENTS ( $\text{La}^{57} - \text{Lu}^{71}$ ) AND  $\text{Sc}^{21}$ ,  $\text{Y}^{39}$  IN AIR AND VARIABLE OXYGEN PRESSURE

Balakirev V.F.

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**(OIV-11)** DEFINITION OF THERMODYNAMIC PARAMETERS OF GALLAM-EXCHANGE SYSTEMS

Tikhomirov I.A., Orlov A.A., Vidyaev D.G., Grinyuk A.A.

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**(OIV-17)** INFLUENCE OF TEMPERATURE ON THERMODYNAMICS OF ION EXCHANGE AND THE REAGENTLESS SEPARATION OF ELECTROLYTES MIXTURES

Ivanov V.A., Gorshkov V.I., Timofeevskaya V.D., Gavlina O.T., Yaroslavtsev A.B.

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**(OIV-18)** ANALYTICAL METHODS FOR ACCELERATION OF PHASE DIAGRAMS AND THERMODYNAMIC PROPERTIES OF CLOSED HETEROGENEOUS SYSTEMS CALCULATIONS

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**(OIV-7)** THERMODYNAMIC PROPERTIES OF THE POLYMERIZED PHASES OF THE FULLERENE C<sub>60</sub>

Bogachev A.G., Senyavin V.M., Popov A.A., Korobov M.V., Davydov V.A., Rakmanina A.V., Markin A.V.

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Aleynikova K.B., Zinchenko E.N., Likhach N.I.

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**(OIV-4)** COMPARATIVE INVESTIGATION OF CARBON MATERIALS, OBTAINED FROM LITHIUM GRAPHITE INTERCALATION COMPOUNDS

Khaskov M.A., Arkhangel'skiy I.V., Avdeev V.V.

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(OIV-26) PHASE TRANSFORMATIONS AT HIGH PRESSURE IN Ni-BASE HETEROGENEOUS SYSTEMS  
Padalko A.G., Avduhin S.P., Veselov A.N.

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Polukhin V. A., Belyakova R.M., Rigmant L.K.

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(OIV-30) EVAPORATION PROCESSES IN NONEQUILIBRIUM SYSTEMS

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Deenadayalu N., Letcher T.M., Ngcongco K.C.

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(OIV-34) VAPOR-LIQUID EQUILIBRIA MEASUREMENT FOR THE BINARY MIXTURES OF PROPANE + HFCS

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(OIV-28) LOCAL-NONEQUILIBRIUM THEORY FOR RAPID SOLIDIFICATION OF UNDERCOOLED MELTS

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Valyashko V.M., Urusova M.A.

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(OIV-13) LIQUID – VAPOUR EQUILIBRIUM IN SYSTEMS CONTAINING URANIUM FLUORIDE, HYDROGEN FLUORIDE AND SOME HALOGENS

Gerin I.I., Usov V.F., Ostvald R.V., Amelina G.N., Pshenichnicov A.G.

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(OIV-20) THERMODYNAMIC MODELLING OF PHASE EQUILIBRIA IN AQUEOUS SYSTEMS CONTAINING SALTS OF MULTIVALENT METALS

Kalinkin A.M.

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(OIV-22) THE ISOCHORIC HEAT CAPACITY AND ASEOTROPY OF BINARY SYSTEM N-HEPTANE – WATER

Mirskaya V.A., Mirskaya R.O.

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(OIV-14) COMPOSITION CONTROL OF SOLIDS USING THE WAY OF SELECTIVE TRANSPORT REACTIONS

Zavrazhnov A.Y., Turchen D.N., Kosyakov A.V., Anorov P.V., Zlomanov V.P.

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(OIV-15) PHASE STABILITY AND CATIONIC ORDERING IN PEROVSKITE-TYPE LAYERED OXIDES

Zvereva I.A.

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(OIV-16) THERMODYNAMICS AND CRYSTALLOCHEMISTRY OF NONSTOICHIOMETRIC COMPOUNDS

Zlomanov V.P., Zavrazhnov A.Ju.

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(OIV-19) THERMODYNAMIC PROGNOSIS OF CHALLENGING COMPOSITIONS AND STRUCTURE INTERPRETATION OF THE ALLOYS FOR SEMI-SOLID PROCESSING

Kazakov A.A., Mahmud T.S., Geller G.V.

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Novikov E.F., Lebedev Ju.A., Michajlov D.A.

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(OIV-24) PHASE DIAGRAMS AND EQUILIBRIUMS AT HIGH PRESSURES AND TEMPERATURES

Molodets A.M., Fortov V.E.

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(OIV-29) THERMODYNAMIC MODELLING OF PHASE EQUILIBRIA IN SYSTEMS Me-B-C-O (Me-Ti, Zr, V) IN VACUUM

Smirnyagina N.N.

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(OIV-31) FORECASTING OF THE PHASEFORMING AND PHASE TRANSFORMATIONS IN THE BINARY SYSTEMS ON THE BASIS OF THE ANALYSIS OF THE DEVIATIONS OF SOLUTIONS FROM IDEALITY

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Aksenova T.V., Gavrilova L.Ya, Cherepanov V.A.

(PIV-2) CRYSTALCHEMISTRY, FORMATION AND STABILITY OF SEMICONDUCTOR II – V SYSTEMS PHASES

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(PIV-3) CRYSTALLISATION OF ZINC PHOSPHIDE AMORPHOUS THIN FILM

Aleynikova K.B., Zinchenko E.N., Lesovoy M.V.

(PIV-4) PHASE EQUILIBRIA IN THE ZrO<sub>2</sub>-FeO SYSTEM

Bechta S.V., Khabensky V.B., Granovsky V.S., Vitol S.A., Krushinov E.V., Kotova S.Yu., Lysenko A.V., Mezentseva L.P., Popova V.F., Almjashev V.I., Lomanova N.A., Petrov Yu.B., Lopukh D.B., Gusarov V.V.

(PIV-5) SOLUBILITY OF URANIUM HEXAFLUORIDE IN UF<sub>6</sub> – BrF<sub>3</sub> – IF<sub>5</sub> SYSTEM

Amelina G.N., Zherin I.I., Pilchik I.V., Pshenichnikov A.G.

(PIV-6) LEGITIMACIES OF CONVERSION OF PHASE DIAGRAMS IN SYSTEMS CaS-Ln<sub>2</sub>S<sub>3</sub> (Ln=Dy–Lu, Y)

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- (PIV-8)** LINE OF THE EUTECTIC POINTS FOR NONEQUILIBRIUM FREEZING OF BINARY SYSTEM  
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- (PIV-9)** EXAMPLES OF THE PHASE FORMATION RATE SURFACES FOR CRYSTALS AND GLASSES  
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- (PIV-10)** DIMER PHASE OF HEXAGONAL C<sub>60</sub> FULLERITE  
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- (PIV-14)** PHASE EQUILIBRIUM OF SYSTEMS POLY(VINYL BUTYRAL) - EPOXY OLIGOMERS  
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(PIV-102) FREE-ENERGY OF ADSORPTION OF A CATIONIC SURFACTANT ONTO NA-BENTONITE (IRAN). INSPECTION OF ADSORPTION LAYER BY X-RAY SPECTROSCOPY

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(PIV-103) PHASE EQUILIBRIA PROPERTIES OF BINARY AND TERNARY SYSTEMS CONTAINING DIISOPROPYL ETHER+1-PROPANOL+BENZENE AT 313.15 K.

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(PIV-104) INTERRELATION BETWEEN THE T-X DIAGRAM TOPOLOGY AND PROPERTIES OF COMPONENTS IN SYSTEMS CONTAINING LIQUID CRYSTALS

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## **SECTION 5.**

### **”Complex Thermodynamic Systems”**

#### **ORAL SESSIONS**

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(OV-26) THERMODYNAMIC AND STRUCTURAL PROPERTIES OF DEZINTEGRATED CELLULOSE IN POLYMER – LOW-MOLECULAR LIQUID SYSTEM.

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(OV-14) SUBSTANCE IN THE ADSORBED STATE

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(OV-8) GAS CHROMATOGRAPHY AS A METHOD OF STUDY OF INTERPHASE EQUILIBRIUM IN A "LIQUID – GAS" SYSTEM AND OF THE THERMODYNAMICS OF SOLUTION

Onuchak L.A., Davankov V.A., Kudryashov S.Yu., Arutyunov Yu.I.

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(OV-7) THERMODYNAMICS OF ADSORPTION IN KNOWN MODELLING APPROACHES

Makarevich N.A.

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(OV-3) THERMODYNAMIC MODELING OF MICELLIZATION IN SALT-AQUEOUS SOLUTIONS OF IONIC SURFACTANTS

Vlasov A.Yu., Andreev V.A., Dryga A.Yu., Smirnova N.A.

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(OV-25) HYDRATION OF PROTEIN FILMS IN ORGANIC SOLVENTS: A THERMODYNAMIC AND STRUCTURAL STUDY

Sirotkin V.A.

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(OV-17) METHOD OF STUDY OF HETEROGENEITY OF POLIELECTROLYTE GELS

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(OV-4) THERMODYNAMIC PRINCIPLES OF APPLICATION OF SUPRAMOLECULAR RECEPTORS IN MASS-SENSITIVE SENSORS

Gorbachuk V.V., Ziganshin M.A.

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(OV-13) THERMODYNAMIC PROPERTIES OF CARBOSILANE DENDRIMERS IN THE RANGE FROM T → 0 K TO 380 K

Smirnova N.N., Tsvetkova L. Ya., Tatarinova E.A.

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(OV-10) THERMAL ANALYSIS AND THERMODYNAMICS OF SYSTEMS CONTAINING LIQUID CRYSTALS

Pestov S.M., Molochko V.A.

12<sup>30</sup> - 12<sup>50</sup>

(OV-16) APPLICATION OF THE THEORY OF PARTITIONS METHODS BY THERMODYNAMIC DESCRIPTION OF DISPERSION SYSTEMS

Fedoseev V.B.

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(OV-23) IONIC LIQUIDS AS SOLVENTS IN EXTRACTIVE DISTILLATION AND SOLVENT EXTRACTION PROCESSES IN SEPARATING ORGANIC LIQUID MIXTURES

Letcher T.M., Nevines J.A.

14<sup>50</sup> – 15<sup>10</sup>

(PV-81) COLLAGEN STRUCTURE AND ITS THERMODYNAMIC PROPERTIES IN PARCHMENTS

Della Gatta G., Badea E., Mašić A., Ceccarelli R., Usacheva T., Kuryshva A.

15<sup>10</sup> – 15<sup>30</sup>

(OV-21) SYNTHESIS, STRUCTURE, AND SURFACE CHEMISTRY OF NEW INORGANIC-ORGANIC COMPOSITE MATERIALS FOR HIGH TEMPERATURE PROTON EXCHANGE MEMBRANE FUEL CELLS

Lvov S.N., Chalkova E., Fedkin M.V., Chung M.T.C., Komarneni S., Sofu J.O., Wesolowski D.J.

15<sup>30</sup> – 15<sup>50</sup>

(OV-18) INVESTIGATION OF THERMODYNAMIC PARAMETERS OF CETYL PYRIDINIUM BROMIDE SORPTION ONTO ZSM-5 AND NATURAL CLINOPTILOLITE

Ghiaci M., Kia R., Kalbasi R.J.

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(OV-19) PULSED-FLOW CALORIMETRY: A VERSATILE TOOL FOR THE STUDY OF NONREVERSIBLE ADSORPTION PHENOMENA AT SOLID/SOLUTION INTERFACES

Király Z., Mastalir Á., Findenegg G.H.

16<sup>40</sup> – 17<sup>00</sup>

(OV-20) THERMODYNAMIC EVIDENCES FOR THE FORMATION OF TRIBLOCK COPOLYMER/SURFACTANT NANOSTRUCTURES IN WATER

De Lisi R., Lazzara G., Milioto S., Muratore N.

17<sup>00</sup> – 17<sup>20</sup>

(OV-2) MOLECULAR-THERMODYNAMICS FOR NETWORK FORMATION IN SOLUTIONS OF IONIC SURFACTANTS

Andreev V.A., Victorov A.I.

17<sup>20</sup> – 17<sup>40</sup>

(OV-6) THERMODYNAMICS OF ISOTHERMAL GLASS TRANSITIONS IN SURFACTANT AND PROTEIN SYSTEMS

Kocherbitov V., Söderman O., Arnebrant T.

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(OV-1) SORPTION PROPERTIES OF CHITOSAN ACCORDING TO DATA OF STATIC AND DYNAMIC EXPERIMENTS

Ageev E.P., Kotel'nikova T.A., Kuznetsov B.V.

11<sup>50</sup> – 12<sup>10</sup>

(OV-11) THE THERMODYNAMICS OF ALCOHOL ADSORPTION ON THE CHITOSAN

Sazonova V.F., Unrod V.I., Tymchuk A.F., Solodovnik T.V., Kojemyak M.A.

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(OV-5) THERMODYNAMIC CONSISTENCY OF BINARY ADSORPTION ISOTHERMS AND LIMITING VALUES OF EFFICIENCY OF GAS FRACTIONATION BY PRESSURE SWING ADSORPTION PROCESS

Zelenko V.L., Heifets L.I.

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(OV-9) HEATS OF CHEMISORPTION OF GASES AT METALS AS A SOURCE OF INFORMATION ON THE MECHANISMS OF HETEROGENEOUS CATALYTIC PROCESSES

Ostrovskii V.E.

12<sup>50</sup> – 13<sup>10</sup>

(OV-12) NON-EQUILIBRIUM CHEMICAL POTENTIAL AND THE THEORY OF STABILITY OF POLYMER SOLUTIONS UNDER SHEAR

Serdyukov S.I., Voskresenskii N.M.

### POSTER SESSION

### June 30

16<sup>20</sup> - 18<sup>00</sup>

(OV-22) SLOW PERMEATION KINETICS THROUGH BIOMEMBRANE MODELS AS STUDIED BY DIFFERENTIAL SCANNING CALORIMETRY

Castelli F., Raudino A., Sarpietro M.G.

(OV-24) STUDY OF CYTOTOXICITY OF ANTITUMOR DRUGS BY ISOTHERMAL MICROCALORIMETRY

Della Gatta G., Badea E., Brusa P., Ravera S., Zonari D.

(PIV-98) ANALYSIS OF SURFACE TENSION OF MIXTURES 1-HEXANOL + n-HEPTANE AT SEVERAL TEMPERATURES

García J., Valencia J. L., Vijande J., de Cominges B.E., Piñeiro M.M., Legido J.L.

(PV-1) THERMAL AND RELAXATION PROPERTIES OF HYBRID POLYMERS ON THE BASIS OF BORON ACID AND PENTAERYTHRITOL

Avramenko N.V., Parfenova A.M., Shaulov A.Yu., Shilkina N.G., Shchegolikhin A.N.

(PV-2) EFFECT OF INTENSE MECHANICAL IMPACT ON THERMODYNAMIC CHARACTERISTICS OF VISCOUS FLOW OF THE SOLUTIONS OF CELLULOSE ETHERS

Alekseeva O.V., Rozhkova O.V., Prusov A.N., Padohin V.A., Anikin J.A.



**(PV-3) SORPTION OF HEAVY METALL IONS ON OXYETHYLCELLULOSE**

Bagrovskaya N.A., Alekseyeva O.V.

**(PV-4) THERMODYNAMICS OF SUPRAMOLECULAR INTERACTIONS IN NETWORK POLYMERS**

Altshuler H.N., Ostapova E.V., Sapozhnikova L.A., Altshuler O.H., Malyshebko B.V.

**(PV-5) SOME CHARACTERISTICS OF A THERMODYNAMICS OF COMPLEXING PROCESSES BETWEEN IONIC METALS OF IRON SUBGROUP WITH POLYMER LIGAND**

Amirgalyeva T.M., Seilkhanova G.A., Ospanova A.K., Pomorceva T.A.

**(PV-6) THE APPLICATION OF THE THERMODYNAMIC PERTURBATION THEORY TO THE CALCULATION OF THE SURFACE TENSION OF NANODROPLETS IN THE WIDE TEMPERATURE RAGE**

Bazulev A.N., Sdobnyakov N.Yu., Samsonov V.M., Sidorova E.V.

**(PV-7) THE THERMODYNAMICS OF THE LIQUID PHASE HYDROGENATION REAGENTS ADSORPTION ON THE NICKEL FROM SOLUTIONS**

Ulitin M.V., Barbov A.V., Lukin M.V.

**(PV-8) PERRHENATE-ION DIFFUSION IN CARBONIC SORBENT**

Gogol D.B., Bekturganov N.S., Bissengaliyeva M.R.

**(PV-9) THE HEAT CAPACITY AND CHEMICAL EXERGY OF THE COMPONENTS OF THE RAPE BIOMASS**

Kabo G.J., Blokhin A.V., Karpushenkava L.S.

**(PV-10) STRUCTURE AND PROPERTIES OF NANOMETER POLYMER LAYERS DEPOSITED ON DIFFERENT INORGANIC SUBSTRATES BY ELECTRON BEAM POLYMERIZATION FROM VAPOUR PHASE**

Bruk M.A., Spirin A.V., Volegova I.A., Zhikharev E.N., Kal'nov V.A., Godovsky Yu.K.

**(PV-11) PROPERTIES, STRUCTURE AND STABILITY OF THE MICELLES OF CETYLTRIMETHYLAMMONIUM CHLORIDE OF DIFFERENT FORM IN WATER ACCORDING TO COMPUTER SIMULATIONS DATA**

Burov S.V., Piotrovskaya E.M., Vorontsov-Velyaminov P.N.

**(PV-12) INFLUENCING OF THICKNESS OF A POLYMER FILMS ON DIFFUSION**

Selezneva S.V., Busygin V.B.

**(PV-13) COMPUTER SIMULATIONS DATA ON ADSORPTION OF WATER AND WATER-METHANE MIXTURE INTO CARBONACEOUS MICROPORE**

Vanin A.A., Piotrovskaya E.M., Brodskaya E.N.

**(PV-14) THERMODYNAMIC AND DYNAMIC BEHAVIOR OF PHASES FORMED BY BANANA-SHAPED MOLECULES**

Vakhovskaja Z., Dunemann U., Weissflog W., Hauser A., Kresse H.

**(PV-15) THERMODYNAMIC ADSORPTION CHARACTERISTICS OF ALKANES AND ALCOHOLS ON FLUOROCARBON**

Glazkova S.V., Roshchina T.M., Khrycheva A.D.

**(PV-16) THERMODYNAMIC CHARACTERISTICS OF MICELLIZATION OF DISODIUM MONOALKYLSULFOSUCCINATES IN AQUEOUS SOLUTIONS**

Glukhareva N.A., Kolesnikova E.N., Suvorova Yu.E., Luk'yanova A.N.

**(PV-17) MOLECULAR-STATISTICAL CALCULATION OF THERMODYNAMICAL CHARACTERISTICS OF ADSORPTION OF SULPHUR CONTAINING COMPOUNDS ON THE SURFACE OF CARBON SORBENTS**

Golub S.L., Uleanov A.V., Buryak A.K.

**(PV-18) DISSOCIATION FUNCTIONS OF ALPHA-ALANINE IN WATER-METHANOL SYSTEM AT 278.15-328.15 K. CORRELATION ANALYSIS OF WATER-METHANOL, WATER-ETHANOL, WATER-PROPAN-2-OL SOLVENT EFFECT ON AMINO ACID STRENGTH AT 298.15 K**

Tsurko J.N., Bondarev N.V.

**(PV-19) INFLUENCE OF THE GLASSY STATE OF HYDROXYPROPYLCELLULOSE ON THERMODYNAMICS OF DISSOLUTION IN WATER AND ETHANOL**

Adamova L.V., Safronov A.P., Gornyh J.A.

- (PV-20)** RESEARCH OF SORPTION OF PETROLEUM AND OIL OF THE NATURAL SORBENTS USED FOR LIQUIDATION OF ITS FLOODS ON SOIL  
Bulanova A.V., Gretskova I.V.
- (PV-21)** CONFORMATIONAL TRANSITIONS IN LYSOZYME AS REVEALED BY FLUORESCENCE STUDY  
Ioffe V.M., Gorbenko G.P., Domanov Ye.A.
- (PV-22)** HEAT EFFECTS OF SOLVATION INTERACTIONS OF BINARY SOLVENTS WITH CELLULOSE  
Zakharov A.G., Radugin M.V., Prusov A.N., Lebedeva T.N.
- (PV-23)** THE THERMOCHEMISTRY OF PROTON ASSOCIATION WITH ANIONS OF SOME AMINO ACIDS.  
Zelenin O.Yu.
- (PV-24)** THERMODYNAMIC CHARACTERISTICS OF ORGANIC COMPOUNDS ADSORPTION ON FULLERENE C<sub>60</sub> MOLECULAR CRYSTALS, MULTI-WALL AND SINGLE-WALL CARBON NANOTUBES  
Davydov V.Ya., Kalashnikova E.V., Karnatsevich V.L., Kirillov A.I., Krestinin A.V., Lopatin M.A.
- (PV-25)** ENERGY OF LIQUID CRYSTAL BOUNDARY LAYER  
Kirsanov E.A., Matveenkov V.N., Timoshin Yu.N.
- (PV-26)** THERMAL ANALYSIS AND THERMODYNAMICS OF LIQUID CRYSTALLINE AROMATIC ESTER – NON-MESOGEN SYSTEMS  
Pestov S.M., Klimova E.V.
- (PV-27)** THERMODYNAMICS OF AROMATIC HYDROCARBONS IN INFINITE DILUTE SOLUTIONS IN DISCOTIC LIQUID CRYSTAL  
Kolesova A.A., Onuchak L.A., Kudryashov S.Yu.
- (PV-28)** THERMODYNAMIC CHARACTERISTICS OF ADAMANTANE'S DERIVATIVES CHROMATOGRAPHIC RETENTION IN THE CAPILLARY CHROMATOGRAPHY  
Konstantinova K.K., Berezkin V.G., Kurbatova S.V.
- (PV-29)** THERMODYNAMIC CHARACTERISTICS OF AMINOACIDS SORPTION ON THE H-SULFOCATION EXCHANGER  
Kotova D.L., Krisanova T.A., Domareva N.V.
- (PV-30)** THE STRUCTURAL FEATURE AND THE AVAILABILITY OF PROLINE AND HYDROXYPROLINE REACTIVE CENTERS FOR WATER MOLECULES  
Kotova D.L., Golovina E.A., Krysanova T.A., Cherenkova Y.A.
- (PV-31)** THERMODYNAMICS OF ADSORPTION OF HYDROCARBONS FROM THE GAS PHASE ON SILOCHROM, MODIFIED BY MONOLAYERS OF LIQUID CRYSTALS  
Kuraeva Yu.G., Kudryashov S.Yu., Onuchak L.A.
- (PV-32)** ADSORPTION PROPERTIES AND SURFACE EVOLUTION OF SILICA MODIFIED WITH IRON (III) OXIDE  
Vlasenko E.V., Zhukova O.S., Kiseleva O.I., Lanin S.N.
- (PV-33)** THERMODYNAMIC CHARACTERISTICS OF THE ORGANIC COMPAUNDS ADSORPTION ON  $\gamma$ -Al<sub>2</sub>O<sub>3</sub>  
Vlasenko E.V., Zhukova O.S., Kovaleva N.V., Lanin S.N., Samadani Langeroodi N.
- (PV-34)** THERMODYNAMIC AND QUANTUM-CHEMICAL ANALYSIS OF SILICON CARBIDE NUCLEATION ON THE SURFACE OF METAL PARTICLE.  
Mazov I.N., Avdeev V.I., Kuznetsov V.L.
- (PV-35)** ADSORPTION-THERMODYNAMIC METHOD OF RESEARCH OF SOLID SURFACES  
Makarevich N.A.
- (PV-36)** THERMOCHEMISTRY OF RAPE  
Maksimuk Yu.V., Antonova Z.A., Nesteruk A.A.
- (PV-37)** MOLECULAR MASS EFFECT ON THERMODYNAMIC PROPERTIES OF POLYMERS  
Nikishenkova L.V., Kulagina T.G., Grishin D.F., Kolyakina E.V., Belov G.P.

- (PV-38) PHASE DIAGRAMS OF POLYMER BLEND PS-PVME AND THEIR ANALYSIS BY MEANS OF IR-SPECTROMETRY**  
Nikulova U.V., Chalykh A.E., Kuleznev V.N., Gagina I.A.
- (PV-39) THE INFLUENCE OF THE LINEAR TENSION OF WETTING PERIMETER ON CONTACT CONDITIONS**  
Novikov I.E., Novoselov A.R., Novikov E.F., Lebedev Ju.A.
- (PV-40) MOLECULAR-STATISTICAL DESCRIPTION OF GAS-PHASE ADSORPTION ON GRAPHITIZED THERMAL CARBON BLACK, MODIFIED BY MONOLAYERS OF ANISOMETRIC MOLECULES**  
Kudryashov S.Yu., Lapshin S.V., Onuchak L.A.
- (PV-41) THE THERMODYNAMIC CHARACTERISTICS OF INFINITELY DILUTE SOLUTIONS OF NONMESOGENS IN A BINARY LIQUID CRYSTALLINE SYSTEM FORMED BY PLATELETS AND RODS**  
Sokolova E.P., Onuchak L.A., Kolesova A.A., Akopova O.B.
- (PV-42) THERMODYNAMIC RESEARCHES OF POLYMERIC - SALT COMPOSITIONS**  
Ostroushko A.A., Sennikov M.Yu., Safronov A.P., Zubarev A.Yu., Bublik I.V.
- (PV-43) THERMOCHEMISTRY OF NANO-DIMENSION SYSTEMS CONTAINING LIGNOSULPHONATES**  
Parfenova L.N., Afanasjev N.I., Poltoratsky G.M.
- (PV-44) SUPERFICIAL PHENOMENA THERMODYNAMICS IN THE ECOLOGICALLY DANGEROUS SEWAGE FLOTATION CLEARING PROCESSES**  
Perlova O.V., Sazonova V.F., Shirykalova A.A., Menchuk V.V.
- (PV-45) THERMODYNAMIC ANALYSIS OF THE FORMATION OF INSOLUBLE PRODUCTS OF THE INTERACTION BETWEEN POLYVALENT METAL IONS AND SURFACTANTS**  
Perlova O.V., Sazonova V.F., Menchuk V.V.
- (PV-46) ANALYSIS OF CAPILLARY CONDENSATION CONDITIONS FOR MOLECULES IN MESOPOROUS MCM-41 MATERIALS**  
Petukhov A.G., Yeremich D.V., Tovbin Yu.K.
- (PV-47) THE PHASE EQUILIBRIUM IN SYSTEMS OF AMORPHO-CRISTAL POLYMER – LIQUID.**  
Pochivalov K.V., Mizerovski L.N.
- (PV-48) SYNTHESIS AND PHYSICAL CHARACTERIZATION OF SEGMENTED POLYURETHANES REINFORCED WITH THE IN SITU-GENERATED SILICA-POLYPHOSPHATE NANOPHASE**  
Dupanov V.O., Privalko E.G., Usenko A.A., Lebedev E.V., Ishchenko S.S., Denisenko V.D., Privalko V.P.
- (PV-49) ENTHALPY RELAXATION IN THE COOLING/HEATING CYCLES OF POLYAMIDE 6/ORGANOCLAY NANOCOMPOSITES**  
Privalko V.P., Dinzhos R.V., Privalko E.G.
- (PV-50) THE THERMODYNAMIC OF ADSORPTION FATTY ACIDS ON FINELY DISPERSED MAGNETITE**  
Ramazanova A.G., Korolev V.V., Blinov A.V.
- (PV-51) SYNERGISTIC EFFECTS IN MIXED AQUEOUS MICELLAR SOLUTIONS OF SODIUM DODECYLSULFATE AND ALKYLAMINE OXIDE**  
Safonova E.A., Filippov S.K., Alekseeva M.V.
- (PV-52) THERMODYNAMICS OF INTERACTION IN THE SYSTEM POLYMER – N-METHYLMORPHOLIN-N-OXIDE OVER A DILUENT**  
Novoselov N.P., Sashina E.S., Petrenko V.E., Kyznetsova A.P.
- (PV-53) THE INFLUENCE OF THE CHOICE OF PAIR POTENTIAL ON THE SIZE DEPENDENCE OF THE SURFACE TENSION**  
Sdobnyakov N.Yu., Samsonov V.M., Khashin V.A., Zubkob V.V.
- (PV-54) SORPTION OF RADIOACTIVE AND HEAVY METALS FROM WATER SOLUTIONS TWO-CALCIUM SILICATE**  
Semenova I.A., Nevraeva K.I., Pashkeev I.J.

- (PV-55)** COMPUTER SIMULATION OF ADSORPTION OF BINARY AND TERNARY MIXTURES IN CARBONACEOUS SLIT MICROPORES  
Sizov V.V., Piotrovskaya E.M., Brodskaya E.N.
- (PV-56)** ENTHALPY OF INTERACTION OF THE COMPONENTS IN BIODEGRADABLE SYSTEMS OF COPOLYAMIDE-CHITOSAN  
 Suvorova A.I. Safronov A.P., Smirnova E.A., Tyukova I.S.
- (PV-57)** EFFECT OF LOW-MOLECULAR ELECTROLYTES ON THERMODYNAMIC PROPERTIES OF CELLULOSE  
 Poltoratsky G.M., Ossowskaya I.I., Sokolov A.V.
- (PV-58)** ABOUT THERMODYNAMICS OF PROCESSES OF ISOLATION OF SURFACTANTS FROM WATER SOLUTIONS  
Streltsova E.A., Voluvach O.V., Muntyan O.G.
- (PV-59)** THE THERMODYNAMIC EVALUATION OF IONOGENIC SURFACTANTS INTERACTION WITH ADSORBENTS OF DIFFERENT TYPES  
Streltsova E.A., Voluvach O.V., Chromysheva E.A., Puzyreva I.V.
- (PV-60)** VAPOUR - LIQUID COEXISTING CURVES OF SIMPLE ADSORBATES IN COMPLEX NARROWED POROUS SYSTEMS  
 Tovbin Yu.K.
- (PV-61)** THERMODYNAMICS OF MICELLE TRANSITION "SPHERE – ELLIPSOID" IN AQUEOUS SOLUTION OF NATRIUM DECYLSULPHATE (DSNa)  
 Kuznetsov V.S., Usol'tseva N.V., Bykova V.V., Zherdev V.P., Ananjeva G.A.
- (PV-62)** EFFECT OF CROSSLINKS NUMBER ON EQUILIBRIUM PROPERTIES OF COMPONENTS OF SWOLLEN POLYMERIC GELS  
 Ferapontov N.B.
- (PV-63)** THERMODYNAMIC CHARACTERISTICS OF SORPTION PROCESS OF SOME BENZOIC ACID DERIVATIVES  
Kharitonova A.G., Bulanova A.V., Larionov O.G.
- (PV-64)** THE TRIGGER MODEL OF OSCILLATION PHENOMENA IN THE NO+H<sub>2</sub> REACTION ON NOBLE METAL SURFACES  
 Cholach A.R., Bulgakov N.N., Nieuwenhuys B.E.
- (PV-65)** EFFECT OF ORGANIC ADDITIVES ON AGGREGATION AND PHASE BEHAVIOUR OF SODIUM DODECYL SULFATE AQUEOUS SOLUTIONS  
Churjusova T.G., Kuanshkalieva A.R., Lazareva Ju.V.
- (PV-66)** RESEARCH PEPTYDES BY HPLC METHOD  
 Polykova U.L., Bulanova A.V., Ro K.C., Shafigulin R.V.
- (PV-67)** THERMODYNAMIC OF ADAMANTYLKETONES CHROMATOGRAPHIC RETENTION UNDER CONDITIONS OF NORMAL-PHASE HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY  
Shumskaya N.Y., Kurbatova S.V., Parshikova O.V.
- (PV-68)** DEFORMATION THERMODYNAMICS PECULIARITIES OF NEW THERMOPLASTIC ELASTOMERS  
Bessonova N.P., Konyukhova E.V., Godovsky Yu.K., Rebrov A.V., Dubinsky V.A., Antipov E.M.
- (PV-69)** FORMATUION OF COMPOUND OF GEO- AND BIOLOGICAL SYSTEMS  
Bilevich O.V., Stepanov V.M.
- (PV-70)** ATOMIC FORCE MICROSCOPY VISUALIZATION OF CRYSTAL MORPHOLOGY AND NANOSTRUCRURE OF ULTRATHIN FILMS OF BLOCK COPOLYMERS AND BLENDS OF POLYETHYLENE OXIDE AND POLYARYLENE SULFONOXIDE  
Volegova I.A., Cherevatenko A.E., Godovsky Yu.K.

**(PV-71)** ADSORPTION OF SATURATED AND AROMATIC HYDROCARBONS ON SILICAS MODIFIED BY PERFLUOROHEXYLSILANES

Lagutova M.S., Roshchina T.M., Fadeev A.Yu.

**(PV-72)** THE METHOD OF CALCULATING THERMODYNAMICAL PARAMETERS DEFINED SURFACTANTS ADSORPTION FROM SOLUTIONS.

Mojjerina(Alexandrova) E.A., Afanasyev B.N., Akulova Yu.P., Proskurina O.V.

**(PV-73)** SHIFT OF THE EQUILIBRIUM OF HYDRATION/DEHYDRATION CALCIUM NITRATE IN SILICA PORES

Simoniva I.A., Aristov Yu.I.

**(PV-74)** NICOTINE, CARBON MONOXYD AND TAR ADSORPTION ON ZEOLITES

Kaddour O., Gherbi A.

**(PV-75)** A THERMOMETRIC TITRATION STUDY ON THE EFFECT OF TEMPERATURE AND VARIOUS COSOLUTES ON THE MICELLIZATION OF A NOVEL GEMINI SURFACTANT

Páhi A., Király Z.

**(PV-76)** TWO-DIMENSIONAL ORDERING OF THE CATIONIC SURFACTANTS C<sub>n</sub>TAB AT THE GRAPHITE/WATER INTERFACE STUDIED BY ADVANCED CALORIMETRIC METHODS

Király Z., Mastalir Á., Findenegg G.H.

**(PV-77)** STUDY OF THE MAGNETIC POLYMER MICROSPHERES AND BIOMOLECULE BY MICROCALORIMETRY

Li Xi, Ding Ling, Zhang Chaocan, Zhong Fuwei

**(PV-78)** THE CLAYS IN PELOOTHERAPY: PHYSICAL AND CHEMICAL PROPERTIES OF MATERIALS FROM THE NORTHWEST OF SPAIN

García Jto, Mourelle M.L., Meijide R., Medina C., Legido J.L.

**(PV-79)** DSC STUDY OF PHENYLUREA DERIVATIVE HERBICIDES/BIOLOGICAL MEMBRANES INTERACTION

Castelli F., Librando V., Minniti Z., Sarpietro M.G.

**(PV-80)** ISOTHERMAL TITRATION CALORYMETRY OF BETA-CASEIN MICELLISATION

Portnaya I., Shimoni K., Ben-Shushan E., Danino D., Cogan U.