

Schedule

Thursday, 26th June 2014

Room 210

08:30–18:00 **Registration and information:** CIM Company

Asen Zlatarov Hall

09:30–09:45 **Opening session:** Organising Committee (V. Beschkov)
09:45–10:30 PL1-Plenary lecture: L. Petrov
10:30–11.00 Presentation by Alfa Laval Company
11.00–11.30 **Coffee break**
11:30–12:15 PL2-Plenary lecture: Ch. Tsvetanov
12:15–13:00 PL3-Plenary lecture: Tz. Tzvetkoff
13:00–14:00 **Lunch**

Hall 424

Session 1 Symposium 7: Polymer chemistry and biomaterials

14:00–15:15 Oral presentations (7-O1-O5)
15:15–15:45 Poster presentations (7-P1-P21)
15:45–16:15 **Coffee break**
16:15–17:30 Poster presentations (7-P1-P21, continued)

Hall 431

Session 2 Symposium 6: Chemical engineering and environmental protection

14:00–15:00 Oral presentations (6-O1-O4)
15:00–15:45 Poster presentations (6-P1-P17)
15:45–16:15 **Coffee break**
16:15–17:30 Poster presentations (6-P1-P17, continued)

Hall 439

Session 3 Symposia 3 and 5: Inorganic chemistry and technology. Catalysis

14:00–14:30 5-K1. Keynote lecture: S. Todorova, I. Yordanova, A. Naydenov, G. Kadinov
14:30–15:45 Oral presentations (3-O1-O2, 5-O1-O2, 3-O3)
15:45–16:15 **Coffee break**
16:15–17:30 Poster presentations (3-P1-P19, 5-P1-P5)

18:00–21:00 **Welcome reception at University of Chemical Technology and Metallurgy**

Friday, 27th June 2014

Room 210

08:30–18:00 **Registration and information:** CIM Company

Asen Zlatarov Hall

09:30–10:15 PL4-Plenary lecture: Ch. Boyadjiev
10:15–10:35 Presentation by AQUACHIM Company (K. Arishtirova)
10:35–11.00 **Coffee break**
11.00–11:45 PL5-Plenary lecture: S. D. Kolev
11:45–12:30 PL6-Plenary lecture: I. Rashkov, N. Manolova
12:30–13:30 **Lunch**

Hall 424

Session 4 Symposium 1: Physical chemistry and electrochemistry

13:30–15:30 Oral presentations (1-O1-O8)
15:30–16:00 **Coffee break**

Hall 431

Session 5 Symposium 4: Analytical chemistry

13:30–14:30 Oral presentations (4-O1-O4)
14:30–15:30 Poster presentations (4-P1-P11)
15:30–16:00 **Coffee break**

Hall 439

Session 6 Symposium 2: Organic chemistry and technology

13:30–14:30 Oral presentations (2-O1-O4)
14:30–15:30 Poster presentations (2-P1-P9)
15:30–16:00 **Coffee break**

Asen Zlatarov Hall

16:00–17:30 **Discussion: Chemical science and energy sources of the 21st century:** V. Beschkov
17:30–17:45 **Closing session:** Organising Committee (V. Beschkov)

Programme

(as of 12th June 2014)

Thursday, 26th June 2014

Room 210

8:30	18:00	Registration and information	CIM Company Conference Organiser
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Asen Zlatarov Hall

9:30	9:45	Opening session	V. Beschkov Organising Committee
9:45	10:30	PL1-Plenary lecture: Preparation of clean hydrogen by ammonia decomposition	L. Petrov Kingdom of Saudi Arabia
10:30	11:00	Alfa Laval in the chemical industry: Products, basic concepts and applications	
11:00	11:30	Coffee break	
11:30	12:15	PL2-Plenary lecture: Temperature-responsive polymer mesoglobules as templates for fabrication of nanocapsule carriers	Ch. Tsvetanov Bulgaria
12:15	13:00	PL3-Plenary lecture: 40 years ionic melt electrochemistry in Bulgaria	Tz. Tzvetkoff Bulgaria
13:00	14:00	Lunch	

Hall 424

Session 1 Symposium 7: Polymer chemistry and biomaterials

14:00	14:15	7-O1. Utilisation of waste single-based propellants to compositions of liquid fertilisers	Tz. Tzvetkoff, <u>I. Glavchev</u> Bulgaria
14:15	14:30	7-O2. Processing and performance characteristics of elastomeric composites with addition of epoxy resin as a filler	<u>D. Zaimova</u> , E. Bayraktar, N. Dishovsky, D. Katundi Bulgaria, France
14:30	14:45	7-O3. Comparative analyses of keratin biocomposites with composites based on collagen	D. Zheleva Bulgaria
14:45	15:00	7-O4. Lignocellulosic biomass as a source for bioethanol production in Bulgaria	<u>V. Blyahovski</u> , S. Petrin, I. Valchev, S. Nenkova Bulgaria
15:00	15:15	7-O5. Improvement of the physical-mechanical properties of printing production with biodegradable printing varnishes	<u>Ya. Nedelchev</u> , T. Bozhkova, I. Spiridonov, R. Boeva, A. Ganchev Bulgaria
15:15	15:45	Poster presentations (7-P1-P21)	

15:45 16:15 **Coffee break**
16:15 17:30 **Poster presentations (7-P1-P21, continued)**

Hall 431

Session 2 Symposium 6: Chemical engineering and environmental protection

14:00 14:15 6-O1. Indicators describing pressures on environment from industry L. Ilchev, N. Davcheva-Ilcheva
Bulgaria

14:15 14:30 6-O2. Catalytic conversion of sulphides into energy in sulphide-driven fuel cell V. Beschkov, E. Razkazova-Velkova,
M. Martinov
Bulgaria

14:30 14:45 6-O3. Denitrification of wastewater with immobilized cells of *Pseudomonas denitrificans* T. Ivanov, I. Lalov, L. Jotova
Bulgaria

14:45 15:00 6-O4. CFD simulation of the hydrodynamics of external loop airlift reactor. Effect of gas sparger construction and location R. A. Stoykova, D. K. Moutafchieva,
D. S. Popova, S. N. Tchaoushev,
V. D. Iliev
Bulgaria

15:00 15:45 **Poster presentations (6-P1-P17)**
15:45 16:15 **Coffee break**
16:15 17:30 **Poster presentations (6-P1-P17, continued)**

Hall 439

Session 3 Symposia 3 and 5: Inorganic chemistry and technology. Catalysis

14:00 14:30 5-K1. Cobalt-based catalysts for volatile organic compounds removal S. Todorova, I. Yordanova,
A. Naydenov, G. Kadinov
Bulgaria

14:30 14:45 3-O1. Non-equilibrium crystallisation in systems of the type $\text{Na}^+/\text{Mg}^{2+}/\text{SO}_4^{2-}/\text{SeO}_4^{2-}-\text{H}_2\text{O}$ Ch. Balarew, S. Tepavitcharova,
S. Kamburov
Bulgaria

14:45 15:00 3-O2. Nanotechnologies for next generation electrode materials in lithium ion batteries S. Ivanova, E. Zhecheva,
M. Mladenov, R. Stoyanova
Bulgaria

15:00 15:15 5-O1. Catalytic behaviour in CO oxidation, CH₄ oxidation, and NO decomposition of rare-earth promoted alumina-supported copper cobaltites B. Ivanov, I. Spassova, M. Milanova,
M. Khristova
Bulgaria

15:15 15:30 5-O2. Novel strategy for preparation of copper-modified SBA-15 and KIT-6 mesoporous silica catalysts I. Genova, R. Nickolov, M. Dimitrov,
M. Mihaylov, D. Kovacheva,
K. Hadjiivanov, T. Tsoncheva
Bulgaria

15:30 15:45 3-O3. Electrodeposition technique as a useful tool to obtain potential anode materials for Li-ion batteries with different nanoarchitected morphologies M. C. López, G. F. Ortiz, P. Lavela,
R. Alcántara, J. L. Tirado
Spain

15:45 16:15 **Coffee break**
16:15 17:30 **Poster presentations (3-P1-P19, 5-P1-P5)**

18:00 21:00 **Welcome reception
at University of Chemical Technology and Metallurgy**

Friday, 27th June 2014

Room 210

8:30 18:00 **Registration and information** CIM Company
Conference Organiser

Asen Zlatarov Hall

9:30 10:15 PL4-Plenary lecture: A new approach to column apparatuses modelling Ch. Boyadjiev
Bulgaria

10:15 10:35 AQUACHIM: Innovative complex solutions in chemistry and industry K. Arishtirova
Bulgaria

10:35 11:00 **Coffee break**

11:00 11:45 PL5-Plenary lecture: Polymer inclusion membranes: A novel tool for solventless extractive separation in industry and chemical analysis S. D. Kolev
Australia

11:45 12:30 PL6-Plenary lecture: Electrospinning of polymers: A versatile tool for fabrication of nanofibrous materials for a variety of applications I. Rashkov, N. Manolova
Bulgaria

12:30 13:30 **Lunch**

Hall 424

Session 4 Symposium 1: Physical chemistry and electrochemistry

13:30 13:45 1-O1. Temperature dependence of inhibitor corrosion protection A. Popova, M. Christov, A. Vasilev,
T. Deligeorgiev
Bulgaria

13:45 14:00 1-O2. Efficiency of galvanostatic formation of antimony oxide in oxalic acid solutions Ch. Girginov, E. Lilov, E. Klein
Bulgaria

14:00 14:15 1-O3. Estimation of kinetic parameters of oxide growth on stainless steel in high-temperature aqueous electrolyte: A sensitivity study A. Alami, M. Bojinov
Bulgaria

14:15 14:30 1-O4. Pulse electrolysis of alkaline solutions as a highly efficient method of production of hydroxygen gas mixtures V. Karastoyanov, Tz. Tzvetkoff
Bulgaria

14:30 14:45 1-O5. An electrochemical and surface analytical study of the degradation of electrode material during pulse electrolysis of water D. Hristova, I. Betova, Tz. Tzvetkoff
Bulgaria

14:45 15:00 1-O6. The dual protolytic ability of the stable semiquinone radicals A. S. Masalimov, A. A. Tur,
S. N. Nikolskiy
Kazakhstan

15:00	15:15	1-O7. Electrochemical activity of two redox biocatalysts promoted by gold nanostructures: A proof of principle and applications in biosensing	<u>N. Dimcheva</u> , E. Horozova, T. Dodevska Bulgaria
15:15	15:30	1-O8. Frequency dependent glass transition of polystyrene: A combined photoacoustic and temperature-modulated differential scanning calorimetry study	<u>Ch. Tzvetkova</u> , Ts. Vassilev Bulgaria
15:30	16:00	Coffee break	

Hall 431

Session 5 Symposium 4: Analytical chemistry

13:30	13:45	4-O1. Possibilities and limitations of different inductively coupled plasma optical emission spectrometry systems in the determination of trace elements in matrices with various compositions	<u>N. Velitchkova</u> , S. Velichkov, N. Daskalova Bulgaria
13:45	14:00	4-O2. Surface modification of silica-coated MnFe ₂ O ₄ magnetic nanoparticles applied as a sorbent for solid phase extraction of trace elements	<u>D. Georgieva</u> , N. Ivanova, V. Stefanova Bulgaria
14:00	14:15	4-O3. Methods for chemical analysis of undesired sediment formed in a high-pressure near zero sulphur diesel hydrotreater	<u>A. Surleva</u> , D. Stratiev, E. Todorova, K. Hristov, K. Stanulov, I. Shishkova, A. Pavlova Bulgaria
14:15	14:30	4-O4. Application of inductively coupled plasma optical emission spectrometry in the determination of platinum group elements in different materials	<u>P. Petrova</u> , N. Velitchkova Bulgaria
14:30	15:30	Poster presentations (4-P1-P11)	
15:30	16:00	Coffee break	

Hall 439

Session 6 Symposium 2: Organic chemistry and technology

13:30	13:45	2-O1. Electrophilic cyclisation and addition reactions of 4-sulphinylated or 4-sulphonylated allene carboxylates	<u>I. D. Parushev</u> , I. K. Ivanov, V. C. Christov Bulgaria
13:45	14:00	2-O2. Metal-catalysed cycloisomerisation reactions of phosphorylated α - and β -hydroxyallenes	<u>I. E. Ismailov</u> , I. K. Ivanov, V. C. Christov Bulgaria
14:00	14:15	2-O3. Spectral and photochemical behaviour of unsymmetrical azines of 3-methyl-1-phenyl-pyrazol-5-ones derivatives after protonation	<u>A. G. Chapkanov</u> , I. K. Petkov, T. D. Dzimbova, S. M. Babanova Bulgaria
14:15	14:30	2-O4. Study on the synthesis, characterisation and bioactivities of substituted (9'-fluorene)-spiro-5-hydantoin	<u>P. Marinova</u> , M. Marinov, M. Kazakova, Y. Feodorova, D. Georgiev, A. Slavchev, S. Genova, V. Sarafian, N. Stoyanov Bulgaria
14:30	15:30	Poster presentations (2-P1-P9)	
15:30	16:00	Coffee break	

Eighth National Conference on Chemistry
Chemistry for Sustainable Development
26–27 June 2014, Sofia, Bulgaria

Asen Zlatarov Hall

16:00	17:30	Discussion: Chemical science and energy sources of the 21st century	V. Beschkov Bulgaria
17:30	17:45	Closing session	V. Beschkov Organising Committee