

## Schedule

### Thursday, 29th September 2016

#### Hall 130 foyer

08:30–18:00 **Registration and information:** Company for International Meetings

#### Hall 130

09:15–09:30 **Opening session:** Organising Committee (V. Beschkov)

09:30–10:15 PL1. Plenary lecture: V. Bankova

10:15–11.00 PL2. Plenary lecture: Y. Osada

11.00–11.30 **Coffee break**

#### Session 1 Symposium 7: 18th National symposium on polymers

11:30–12:00 7-K1. Keynote lecture: P. Petrov

12:00–12:30 7-K2. Keynote lecture: M. J. Carrero, A. M. Borreguero, M. J. Ramos, M. Jimenez, J. F. Rodriguez

12:30–13:00 7-K3. Keynote lecture: B. Trzebicka

13:00–14:00 **Lunch break**

14:00–14:30 7-K4. Keynote lecture: P. Shestakova, H. Gruncharova, E. Vassileva

14:30–15:00 7-K5. Keynote lecture: R. Bryaskova, D. Pencheva, St. Dimov, M. Iliev, T. Kantardjiev

15:00–15:30 Oral presentations (7-O1-O2)

15:30–16:00 **Coffee break**

16:00–17:00 Oral presentations (7-O3-O6)

17:00–18:00 Poster flash presentations (7-P1-P23)

#### Hall 445

#### Session 2 Symposium 9: Pulp, paper and packaging: paper for pure nature

11:30–12:00 9-K1. Keynote lecture: P. Chingov, P. Fisera

12:00–13:00 Oral presentations (9-O1-O4)

13:00–14:00 **Lunch break**

14:00–14:45 Oral presentations (9-O5-O7)

14:45–15:30 Poster presentations (9-P1-P25)

15:30–16:00 **Coffee break**

16:00–17:30 Poster presentations (9-P1-P25, continued)

#### Hall 507

#### Session 3 Symposium 4: Analytical chemistry

11:30–12:00 4-K1. Keynote lecture: Y. Zhang, M. Miró, S. D. Kolev

12:00–13:00 Oral presentations (4-O1-O4)

13:00–14:00 **Lunch break**

14:00–15:30 Poster presentations (4-P1-P7)

15:30–16:00 **Coffee break**

#### Hall 547

#### Session 4 Symposia 2 and 8: Organic chemistry and technology. Pharmaceutical chemistry and technology

11:30–12:45 Oral presentations (2-O1-O5)

13:00–14:00 **Lunch break**

14:00–14:45 Oral presentations (8-O1-O3)

14:45–15:30 Poster presentations (2-P1-P13, 8-P1-P4)

15:30–16:00 **Coffee break**

16:00–17:30 Poster presentations (2-P1-P13, 8-P1-P4, continued)

#### Hall 210 foyer

18:30–21:00 **Welcome reception at Faculty of Chemistry and Pharmacy**

### Friday, 30th September 2016

#### Hall 130 foyer

08:30–18:00 **Registration and information:** Company for International Meetings

#### Hall 130

09:30–10:15 PL3. Plenary lecture: B. Galabov

10:15–11.00 PL4. Plenary lecture: S. Pispas

11.00–11.30 **Coffee break**

**Session 5 Symposium 7: 18th National symposium on polymers**

11:30–12:00 7-K6. Keynote lecture: S. K. Smoukov

12:00–12:45 Oral presentations (7-O7-O9)

13:00–14:00 **Lunch break**

**Session 6 Symposium 7: 18th National symposium on polymers, Session dedicated to the 80th anniversary of Professor Stoyko Fakirov**

14:00–14:15 Introduction: I. Shopov

14:15–15:00 7-K7. Keynote lecture: K. Friedrich: A tribute to Professor Stoyko Fakirov (invited)

15:00–15:30 7-K8. Keynote lecture: A. Lederer

15:30–16:00 **Coffee break**

16:00–16:45 Oral presentations (7-O10-O12)

16:45–17:30 Greetings

17:30–19:00 Poster presentations (7-P1-P23)

**Hall 445**

**Session 7 Symposium 6: Chemical engineering and environmental protection**

11:30–12:00 6-K1. Keynote lecture: Ch. Boyadjiev

12:00–12:30 6-K2. Keynote lecture: S. Pişkin

12:30–13:00 Oral presentations (6-O1-O2)

13:00–14:00 **Lunch break**

14:00–14:15 Oral presentation (6-O3)

14:15–15:30 Poster presentations (6-P1-P12)

15:30–16:00 **Coffee break**

16:00–17:30 **Discussion: Novel materials for clean environment** (Chair: V. Beschkov)

**Hall 507**

**Session 8 Symposium 1: Physical chemistry and electrochemistry**

11:30–13:00 Oral presentations (1-O1-O6)

13:00–14:00 **Lunch break**

14:00–14:30 Oral presentations (1-O7-O8)

14:30–15:30 Poster presentations (1-P1-P2)

15:30–16:00 **Coffee break**

**Hall 547**

**Session 9 Symposia 3 and 5: Inorganic chemistry and technology. Catalysis**

11:30–12:00 5-K1. Keynote lecture: T. Tabakova, E. Kolentsova, D. Dimitrov, K. Ivanov, P. Petrova, G. Avdeev, D. Nihtianova, M. Manzoli

12:00–12:30 5-K2. Keynote lecture: M. Gabrovska

12:30–13:00 5-K3. Keynote lecture: K. Chakarova, K. Hadjiivanov, M. Mihaylov, S. Andonova, N. Drenchev, E. Ivanova

13:00–14:00 **Lunch break**

14:00–15:30 Poster presentations (3-P1-P11, 5-P1-P9)

15:30–16:00 **Coffee break**

**Hall 704**

**Session 10 Symposium 10: Education in chemistry**

11:30–12:45 Oral presentations (10-O1-O5)

13:00–14:00 **Lunch break**

**Saturday, 1st October 2016**

**Hall 130 foyer**

08:30–14:00 **Registration and information:** Company for International Meetings

**Hall 130**

09:30–10:15 PL5-Plenary lecture: I. Panaiotov

10:15–11:00 PL6-Plenary lecture: M. Stamm

11.00–11.30 **Coffee break**

11:30–12:15 PL7-Plenary lecture: V. I. Slaveykova

12:15–13:00 PL8-Plenary lecture: T. Spassov

13:00–13:15 **Closing session:** Organising Committee (V. Beschkov)

## Programme (as of 1st September 2016)

### Thursday, 29th September 2016

#### Hall 130 foyer

8:30	18:00	<b>Registration and information</b>	Company for International Meetings
------	-------	-------------------------------------	------------------------------------

#### Hall 130

9:15	9:30	<b>Opening session</b>	V. Beschkov Organising Committee
------	------	------------------------	-------------------------------------

9:30	10:15	PL1. Plenary lecture: Propolis chemistry: a look inside the beehive and beyond	V. Bankova
------	-------	--	------------

10:15	11:00	PL2. Plenary lecture: Intelligent gels: approaches to artificial soft tissue	Y. Osada
-------	-------	--	----------

11:00	11:30	<b>Coffee break</b>	
-------	-------	---------------------	--

#### Session 1 Symposium 7: 18th National symposium on polymers

11:30	12:00	7-K1. Keynote lecture: Co-assembly of block copolymers: a strategy toward multifunctional nanocarriers	P. Petrov
-------	-------	--	-----------

12:00	12:30	7-K2. Keynote lecture: Functionalisation of propylene and ethylene oxide copolymers for the synthesis of polymer-drug conjugates	M. J. Carrero, A. M. Borreguero, M. J. Ramos, M. Jimenez, <u>J. F. Rodríguez</u>
-------	-------	--	--

12:30	13:00	7-K3. Keynote lecture: Thermoresponsive nanocarriers of active species	B. Trzebicka
-------	-------	--	--------------

13:00	14:00	<b>Lunch break</b>	
-------	-------	--------------------	--

14:00	14:30	7-K4. Keynote lecture: Novel NMR methods in polymer science in Bulgaria: diffusion NMR and magic angle spinning (MAS) NMR for investigation of structure, dynamics and interactions in polymer hydrogels	<u>P. Shestakova</u> , H. Gruncharova, E. Vassileva
-------	-------	--	--

14:30	15:00	7-K5. Keynote lecture: Synthesis, characterisation, and behaviour of polymer-stabilised silver nanoparticles for biomedical applications	<u>R. Bryaskova</u> , D. Pencheva, St. Dimov, M. Iliev, T. Kantardjiev
-------	-------	--	--

15:00	17:00	<b>Oral presentations</b>	
-------	-------	---------------------------	--

15:00	15:15	7-O1. Functionalised hydrophilic polymers for modification of biomacromolecules or nanocarriers	<u>N. Koseva</u> , V. Mitova, I. Tsacheva, P. Shestakova, A. Kowalczyk, M. Karayianni, S. Pispas
-------	-------	---	---

15:15	15:30	7-O2. Star nanocarriers of nucleic acids	<u>B. Mendrek</u> , Ł. Sieroń, I. Żymelka-Miara, B. Trzebicka, A. L. Sieroń, A. Dworak, A. Kowalczyk
-------	-------	--	---

15:30	16:00	<b>Coffee break</b>	
16:00	16:15	7-O3. Polymer-based gene-delivery vector systems with entrapped gold nanoparticles	<u>E. Haladjova</u> , G. Mountrichas, S. Pispas, S. Rangelov
16:15	16:30	7-O4. Numerical analysis of controlled/living radical polymerisation	K. V. Grigorova, V. T. Toncheva, G. Georgiev
16:30	16:45	7-O5. Hybrid polymer/silica materials based on poly(N,N-dimethylacrylamide) copolymers: synthesis, properties and potential application	<u>L. Todorova</u> , C. Novakov, D. Christova
16:45	17:00	7-O6. Polymer surfaces for biomedical application	<u>A. Utrata-Wesołek</u> , W. Wałach, N. Oleszko, D. Szweda, J. Anioł, A. L. Sieroń, A. Klama-Baryła, G. Kitala, M. Kawecki, A. Dworak
17:15	18:00	<b>Poster flash presentations (7-P1-P23)</b>	

#### Hall 445

##### Session 2 Symposium 9: Pulp, paper and packaging: paper for pure nature

11:30	12:00	9-K1. Keynote lecture: Industry 4.0 for batch cooking process at Mondi Stambolijski	<u>P. Chingov</u> , P. Fisera
12:00	13:00	<b>Oral presentations</b>	
12:00	12:15	9-O1. Modern approach applied in the process of structural and graphic design of consumer packaging for cosmetics	<u>A. Radoslavov</u> , M. Koleva
12:15	12:30	9-O2. New deinking technology for digital printed paper	<u>A. Bozhikov</u> , P. Transka, K. Savov
12:30	12:45	9-O3. Lignosulphonate and waste technical hydrolysis lignin as adhesives for eco-friendly fibreboard	<u>N. Yotov</u> , V. Savov, S. Petrin, I. Valchev
12:45	13:00	9-O4. Comparative analysis of topochemical kinetic equations applied to cellulase hydrolysis of lignocellulosic biomass	<u>N. Yavorov</u> , I. Valchev, G. Radeva
13:00	14:00	<b>Lunch break</b>	
14:00	14:45	<b>Oral presentations</b>	
14:00	14:15	9-O5. Dyeing of offset printing paper with new reactive dyes: influence on paper properties and ageing	<u>D. A. Todorova</u> , P. M. Miladinova, V. N. Blyahovski
14:15	14:30	9-O6. Reuse of sludge from wastewater treatment in production of recycled paper for corrugated packaging solutions	<u>D. Elenkova</u> , S. Ladzhov, V. Yavorova, I. Valchev
14:30	14:45	9-O7. Bentonite as a cleaning agent for pitch deposition on paper machine	R. Zahariev
14:45	15:30	<b>Poster presentations (9-P1-P25)</b>	
15:30	16:00	<b>Coffee break</b>	
16:00	17:30	<b>Poster presentations (9-P1-P25, continued)</b>	

### Hall 507

#### Session 3 Symposium 4: Analytical chemistry

11:30	12:00	4-K1. Keynote lecture: A novel hybrid flow system for the online fractionation and speciation of bioaccessible inorganic and organic mercury in environmental solid samples	Y. Zhang, M. Miró, <u>S. D. Kolev</u>
12:00	13:00	<b>Oral presentations</b>	
12:00	12:15	4-O1. Spectral interferences in the determination of rhenium in molybdenum and copper concentrates by inductively coupled plasma optical emission spectrometry	M. Karadjov, <u>N. Velitchkova</u> , O. Veleva, S. Velichkov, N. Daskalova
12:15	12:30	4-O2. Supramolecular bioinorganic chemistry: an interdisciplinary challenge for the Faculty of Chemistry and Pharmacy at Sofia University	<u>A. Ahmedova</u> , N. Burdzhiev, D. Momekova, R. Mihaylova, S. Stoykova, J. Zaharieva, G. Momekov, P. Shestakova
12:30	12:45	4-O3. A comparative study of the effects of salinomycin, monensin, and DMSA on the biodistribution of cadmium, calcium, copper, iron, and zinc in Cd-intoxicated mice	<u>K. Kamenova</u> , Y. Gluhcheva, S. Arpadjan, Ju. Ivanova
12:45	13:00	4-O4. Chromate-imprinted sorbent supported on silica spheres for preconcentration and determination of Cr(VI) in textiles	<u>T. Yordanova</u> , M. Mitreva, I. Dakova, I. Karadjova, P. Vasileva
13:00	14:00	<b>Lunch break</b>	
14:00	15:30	<b>Poster presentations (4-P1-P7)</b>	
15:30	16:00	<b>Coffee break</b>	
16:00	17:30	<b>Poster presentations (4-P1-P7, continued)</b>	

### Hall 547

#### Session 4 Symposia 2 and 8: Organic chemistry and technology. Pharmaceutical chemistry and technology

11:30	13:00	<b>Oral presentations</b>	
11:30	11:45	2-O1. Synthesis of substituted proline derivatives as potential Seprase inhibitors	V. Mihaylova, N. Mateeva, Ts. Iliev, I. P. Ivanov, <u>D. Tasheva</u>
11:45	12:00	2-O2. Diastereoselective aza-Michael addition catalysed by chiral ketopinic acid derived complex	<u>Y. Hassan</u> , R. Klein, P. T. Kaye
12:00	12:15	2-O3. Effective removal of heavy metal ions using glycerol and starch xanthate	<u>A. D. Mohammed</u> , D. A. Young, J. Hendriks, H. C. M. Vosloo
12:15	12:30	2-O4. Kinetics and mechanism of inhibited lipid autoxidation in presence of 4-substituted coumarins	<u>V. D. Kancheva</u> , S. Angelova, A. Slavova-Kazakova
12:30	12:45	2-O5. Biscoumarins: a challenge to synthesis	<u>A. I. Koleva</u> , N. I. Petkova, R. D. Nikolova
13:00	14:00	<b>Lunch break</b>	
14:00	14:45	<b>Oral presentations</b>	
14:00	14:15	8-O1. Efficient drug delivery: characterisation of peptide-based complex of doxorubicin	<u>G. Gocheva</u> , N. Ilieva, K. Peneva, A. Ivanova

14:15	14:30	8-O2. Transfer of a drug-peptide complex through model cell membranes	<u>N. Ivanova</u> , A. Ivanova
14:30	14:45	8-O3. Micellar solubilisation of hydrophobic drugs	<u>Z. Vinarov</u> , D. Radeva, S. Tcholakova, N. Denkov
14:45	15:30	<b>Poster presentations (2-P1-P13, 8-P1-P4)</b>	
15:30	16:00	<b>Coffee break</b>	
16:00	17:30	<b>Poster presentations (2-P1-P13, 8-P1-P4, continued)</b>	

#### Hall 210 foyer

18:30	21:00	<b>Welcome reception at Faculty of Chemistry and Pharmacy</b>	
-------	-------	---	--

### Friday, 30th September 2016

#### Hall 130 foyer

8:30	18:00	<b>Registration and information</b>	Company for International Meetings
------	-------	-------------------------------------	------------------------------------

#### Hall 130

9:30	10:15	PL3. Plenary lecture: Application of spectroscopic and theoretical methods in elucidating reaction mechanisms	B. Galabov
10:15	11:00	PL4. Plenary lecture: Functional nanostructures from amphiphilic block copolymers and other building blocks	S. Pispas
11:00	11:30	<b>Coffee break</b>	
<b>Session 5 Symposium 7: 18th National symposium on polymers</b>			
11:30	12:00	7-K6. Keynote lecture: Bottom-up methods for nanostructured functional polymers and composites	S. K. Smoukov
12:30	12:45	<b>Oral presentations</b>	
12:00	12:15	7-O7. Polybenzimidazole-based anion conductive polymer electrolyte membranes for AEM fuel cells and electrolyzers	<u>H. Penchev</u> , P. Ublekov, G. Borisov, V. Sinigersky
12:15	12:30	7-O8. Mechanical and tribological behaviour and biomineralisation ability of hydroxyapatite-modified hydrogels	<u>L. Sorochynska</u> , S. Grishchuk, B. Wetzel
12:30	12:45	7-O9. Polymer-containing photovoltaics: current state and new perspectives	<u>G. Grancharov</u> , V. Gancheva, P. Mokreva, R. Kalinova, P. Petrov, E. Lazarova, C. Dikov, G. Popkirov, P. Vitanov, M. Sendova-Vassileva
13:00	14:00	<b>Lunch break</b>	

**Session 6 Symposium 7: 18th National symposium on polymers, Session dedicated to the 80th anniversary of Professor Stoyko Fakirov**

14:00	14:15	Introduction: I. Shopov	
14:15	15:00	7-K7. Keynote lecture: From solid-state postcondensation of neat polymers to multifunctional nanofibrillar polymer composites: a tribute to Professor Stoyko Fakirov on the occasion of his 80th birthday (invited)	K. Friedrich
15:00	15:30	7-K8. Keynote lecture: Advanced separation and characterisation of multifunctional polymer systems	A. Lederer
15:30	16:00	<b>Coffee break</b>	
16:00	16:45	<b>Oral presentations</b>	
16:00	16:15	7-O10. Functionalisation of self-assembling copolymers for nanoencapsulation of phase changing materials	<u>S. Grishchuk</u> , G. M. Florescu, B. Wetzel
16:15	16:30	7-O11. Polymer nanocrystals in aqueous dispersions	<u>M. Krumova</u> , S. Mecking
16:30	16:45	7-O12. Polyacrylate and polymethacrylate based interpenetrating polymer networks as drug delivery systems	<u>M. Simeonov</u> , A. Lederer, S. Boye, B. Kostova, E. Vassileva
16:45	17:30	Greetings	17:30 17:30
17:30	19:00	<b>Poster presentations (7-P1-P23)</b>	

**Hall 445**

**Session 7 Symposium 6: Chemical engineering and environmental protection**

11.30	12:00	6-K1. Keynote lecture: A new approach to modelling the mass transfer processes in industrial column apparatuses	Ch. Boyadjiev
12:00	12:30	6-K2. Keynote lecture: Sol-gel hydrothermal synthesis of titanium dioxide nanoparticles	S. Kasap, M. S. Yilmaz, <u>S. Pişkin</u>
12:30	13:00	<b>Oral presentations</b>	
12:30	12:45	6-O1. Ultrasound-assisted extraction and nanofiltration of bioactive compounds from <i>Sideritis</i>	B. Tylkowski, A. Trojanowska, C. Quintas, <u>I. Tsibranska</u>
12:45	13:00	6-O2. Study of the energy potential of vinasse	<u>P. G. Velichkova</u> , T. V. Ivanov, I. G. Lalov
13:00	14:00	<b>Lunch break</b>	
14:00	14:15	<b>Oral presentation</b>	
14:00	14:15	6-O3. Magnetically assisted fluidised bed bioreactor for bioethanol production	P. G. Velichkova, <u>T. V. Ivanov</u> , I. G. Lalov
14:15	15:30	<b>Poster presentations (6-P1-P12)</b>	
15:30	16:00	<b>Coffee break</b>	
16:00	17:30	<b>Discussion: Novel materials for clean environment</b>	V. Beschkov (chair)

### Hall 507

#### Session 8 Symposium 1: Physical chemistry and electrochemistry

11:30	13:00	<b>Oral presentations</b>	
11:30	11:45	1-O1. Electrostatic equations in quadrupolar media	R. Slavchov, <u>I. Dimitrova</u> , Tz. Ivanov
11:45	12:00	1-O2. A theoretical identification of the [10]annulene configurations isolated by Masamune's group	R. Palmeiro, F. J. Nañez, D. Rivero, <u>O. Castaño</u>
12:00	12:15	1-O3. Self-shaping droplets: from formation mechanisms to potential applications	<u>N. Denkov</u> , S. Tcholakova, I. Lesov, D. Cholakova, S. K. Smoukov
12:15	12:30	1-O4. Role of surfactant adsorption layers for dynamic foam properties	<u>S. Tcholakova</u> , N. Denkov
12:30	12:45	1-O5. Adsorption of ions at a non-ionic surfactant spread monolayer interface	<u>T. Peshkova</u> , I. Minkov, R. Slavchov
12:45	13:00	1-O6. Phase formation and structure of glass-ceramics by Fe-Ni waste vitrification	<u>A. Kamusheva</u> , S. Vladimirova-Atanasova, B. Rangelov, G. Avdeev, D. Karashanova, A. Karamanov
13:00	14:00	<b>Lunch break</b>	
14:00	14:30	<b>Oral presentations</b>	
14:00	14:15	1-O7. Kinetic parameters of anodic oxidation of titanium alloys in a fluoride-containing electrolyte	<u>M. Stancheva</u> , M. Bojinov
14:15	14:30	1-O8 Effects of cold plastic deformation on the mechanical characteristics and corrosion behaviour of low-alloyed (2%Cr) steel	<u>D. Ivanova</u> , G. Ilieva, L. Fachikov
14:30	15:30	<b>Poster presentations (1-P1-P2)</b>	
15:30	16:00	<b>Coffee break</b>	

### Hall 547

#### Session 9 Symposia 3 and 5: Inorganic chemistry and technology. Catalysis

11:30	12:00	7-K1. Keynote lecture: Design of novel catalysts for CO and VOCs abatement	<u>T. Tabakova</u> , E. Kolentsova, D. Dimitrov, K. Ivanov, M. Manzoli, P. Petrova, G. Avdeev, D. Nihtianova
12:00	12:30	7-K2. Keynote lecture: Impact of magnesium dopant on the properties and performance of nickel-based catalysts	M. Gabrovska
12:30	13:00	7-K3. Keynote lecture: Guest molecules in metal-organic frameworks: FTIR spectroscopic studies	<u>K. Chakarova</u> , K. Hadjiivanov, M. Mihaylov, S. Andonova, N. Drenchev, E. Ivanova
13:00	14:00	<b>Lunch</b>	
14:00	15:30	<b>Poster presentations (3-P1-P11, 5-P1-P9)</b>	
15:30	16:00	<b>Coffee break</b>	



#### Hall 704

##### Session 10 Symposium 10: Education in chemistry

11:30	12:45	<b>Oral presentations</b>	
11:30	11:45	10-O1. Student's attitudes related to science and scientists: stereotypes, peculiarities, implications	A. Gendjova
11:45	12:00	10-O2. Bulgarian university ranking system: indicators for student motivation to choose university education in the chemical sciences professional field	<u>A. Tafrova-Grigorova</u> , M. Kirova
12:00	12:15	10-O3. Key set of skills of the successful science teacher in constructivist learning environment	<u>V. Tzvetkov</u> , E. Boiadjieva
12:15	12:30	10-O4. Results of an international study on constructivist practices in chemistry education	<u>I. Emilov</u> , A. Tafrova-Grigorova
12:30	12:45	10-O5. A study of the floral migration and floral specialisation of worker bees	Z. H. Garova
13:00	14:00	<b>Lunch break</b>	

#### Saturday, 1st October 2016

##### Hall 130 foyer

8:30	14:00	<b>Registration and information</b>	Company for International Meetings
------	-------	-------------------------------------	------------------------------------

##### Hall 130

9:30	10:15	PL5. Plenary lecture: Behaviour of nanosized drug carriers at model interfaces	I. Panaiotov
10:15	11:00	PL6. Plenary lecture: Polymers for high energy-density batteries	M. Stamm
11:00	11:30	<b>Coffee break</b>	
11:30	12:15	PL7. Plenary lecture: Small particles - large implications? What aquatic microorganisms tell us about environmental impact of engineered nanomaterials	V. I. Slaveykova
12:15	13:00	PL8. Plenary lecture: Micro- and nanoporous metals by dealloying of glasses	<u>T. Spasov</u> , L. Mihaylov
13:00	13:15	<b>Closing session:</b> Organising Committee (V. Beschkov)	