



# PHYSICAL CHEMISTRY 2018

*14<sup>th</sup> International Conference on  
Fundamental and Applied Aspects of  
Physical Chemistry*



*Ф. Каниц, Велика пшчјаца, цртеж  
F. Kanić, Grand market, drawing*

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The Conference is dedicated to the 210<sup>th</sup> Anniversary of the University of Belgrade



1808-2018

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*BELGRADE  
September 24-28, 2018*



**PHYSICAL CHEMISTRY 2018**

14<sup>th</sup> International Conference  
on Fundamental and Applied Aspects of  
Physical Chemistry

Organized by  
The Society of Physical Chemists of Serbia

**FINAL PROGRAM**

**September 24-28, 2018**  
**Belgrade, Serbia**

## Organizing Committee

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**Vice-chairmans:**

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## Scientific Committee

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S. Anić (Serbia), A. Antić-Jovanović (Serbia), D. J. Biswas (India), R. Cervellati (Italy), G. Ćirić-Marjanović (Serbia), V. Dondur (Serbia), S. D. Furrow (USA), A. Goldbeter (Belgium), R. Jerala (Slovenia), M. Jeremić (Serbia), A. Jovović (Serbia), Y. Kalvachev (Bulgaria), E. Kiš (Serbia), Lj. Kolar-Anić (Serbia), U. Kortz (Germany), T. Kowalska (Poljska), V. Kuntić (Serbia), G. Lente (Hungary), Z. Marković (Serbia), S. Mentus (Serbia), K. Novaković (UK), B. Novakovski (Poljska), S. Otto (Netherlands), V. Parmon (Russia), R. Pascal (USA), M. Perić (Serbia), M. Plavšić (Serbia), J. Savović (Serbia), G. Schmitz (Belgium), I. Schreiber (Czech), L. Schreiberova (Czech), H. W. Siesler (Germany), E. M. Barbosa Souto (Portugal), N. Stepanov (Russia), E. Szabó (Slovakia), R. Tomovska (Spain), Á. Tóth (Hungary), M. Trtica (Serbia), V. Vasić (Serbia), D. Veselinović (Serbia), D. Vučković (Canada), V. Vukojević (Sweden), P. Walde (Switzerland)

## Local Executive Committee

**Chairman:** S.N. Blagojević

**Vice-chairmans:** A. Ivanović-Šašić  
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**Members:**

M. Ajduković, I. N. Bujanja, A. Dobrota, J. Dostanić, D. Dimić, A. Ignjatović, S. Jovanović, Z. Jovanović, A. Jović, N. Jović-Jovičić, D. Lončarević, M. Kragović, J. Krstić, S. Maćešić, J. Maksimović, S. Marinović, V. Marković, D. Milenković, M. Milovanović, T. Mudrinić, B. Nedić, M. Pagnacco, A. Pavićević, N. Potkonjak, D. Ranković, M. Ristić, B. Stanković, K. Stevanović, M. Stević, A. Stoilković

# PRELIMINARY GENERAL PROGRAM

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## Conference Venue



**A HALL** - Rectorate of University of Belgrade, Studenski trg 1, Belgrade  
(Opening, Welcome Gathering, and Plenary Lectures)



The Natural Sciences Building, Studenski trg 12-16

**B HALL** / Entrance B (First floor)

**C HALL & ENTRANCE HALL (Hallway)** / Entrance C (Ground level)  
(Registration Desk, Section Lectures, Oral and Poster Presentations)

## Rectorate of University of Belgrade

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### Registration

*Registration desk at the Entrance Hall of the Rectorate Building will be opened at 08:30 and closed at 17:00 on Monday 24.09.*

#### A HALL

September 24 <sup>th</sup>	09:00-09:30	<b>Opening</b>
	09.30-10.30	<b>Welcome Gathering</b>
		<b>Plenary Lectures</b>
	10:30-12.00	<b>PL-1, PL-2, PL-3</b>
	12:00-12:10	<i>Pause</i>
	12:10-13.40	<b>PL-4, PL-5, PL-6</b>
	13:40-15:00	<i>Lunch Break</i>
	15:00-16.00	<b>PL-7, PL-8</b>
	16:00-16:10	<i>Pause</i>
	16:10-17.10	<b>PL-9, PL-10</b>

#### C HALL

September 27 <sup>th</sup>	09:00-09:30	<b>PL-11</b>
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The Natural Sciences Building  
Entrance C (Ground level)

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## Registration

*Registration desk at the Entrance Hall of the Natural Sciences Building will be opened 09:00-12:00 on Tuesday (25.09), Thursday(27.09) and Friday (28.09)*

## Section Lectures and Oral Presentations

	<b>C HALL</b>	<b>B HALL</b>
September 25 <sup>th</sup> 09:00-12:10		Sections: A, B, E, I, M
September 27 <sup>th</sup> 09:40-13:20	Sections:C	Sections: F, H, J, K, O
September 28 <sup>th</sup> 09:00-12:40	Sections: D	

## Poster presentations

### ENTRANCE HALL (Hallway)

September 27 <sup>th</sup> 15:00-16:00	Sections: A, B, J, O
16:15-17:15	Sections: F, K
September 28 <sup>th</sup> 15:00-16:00	Sections: C, E, G, I, R
16:15-17:15	Sections: H, Q
17:30-18:30	Sections: D, L, M, N, P

## Closing Session

### C HALL

September 28<sup>th</sup> 18:40

## *Abbreviations*

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**PL** – Plenary Lecture  
**SL** – Section Lecture  
**O** – Oral Presentation  
**P** – Poster Presentation

### **Topics**

**A** – Chemical Thermodynamics  
**B** – Spectroscopy, Molecular Structure, Physical Chemistry of Plasma  
**C** – Kinetics, Catalysis  
**D** – Nonlinear Dynamics, Oscillatory Reactions, Chaos  
**E** – Electrochemistry  
**F** – Biophysical Chemistry, EPR investigations of biosystems, Photochemistry, Radiation Chemistry  
**G** – Organic Physical Chemistry  
**H** – Material Science  
**I** – Physical Chemistry of Condensed Phases, Solid State and Fluids  
**J** – Macromolecular Physical Chemistry  
**K** – Environmental Protection, Forensic Sciences, Geophysical Chemistry, Radiochemistry, Nuclear Chemistry  
**L** – Phase Boundaries, Colloids, Liquid Crystals, Surface-Active Substances  
**M** – Complex Compounds  
**N** – General Physical Chemistry  
**O** – Pharmaceutical Physical Chemistry  
**P** – Education, History  
**Q** – Food Physical Chemistry  
**R** – Physico-Chemical Analysis

### *Oral presentations*

The Power Point presentation must be available on CD-Rom or flash memory and prepared with Power Point for Windows XP. Optionally, laptop can be used. Overhead projector will be available also.

### *Poster presentation*

The posters should be mounted on the board 0.80 m wide and 1.20 m high.

# PRELIMINARY DETAILED PROGRAM

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Monday, September 24<sup>th</sup>

Rectorate of University of Belgrade

## A HALL

*Chairpersons: G. Ćirić-Marjanović, P. Banković, R. Pascal*

- 10:30-11:00    **PL-1**    **P. Walde**, Zürich, Switzerland  
*Emergent properties of vesicles*
- 11:00-11:30    **PL-2**    B. Barbov, **Yu. Kalvachev**, Sofia, Bulgaria  
*Green synthesis of zeolites from fly ash and their application for environmental protection*
- 11:30-12:00    **PL-3**    **U. Kortz**, Bremen, Germany  
*Polyoxometalates for applications in catalysis and energy*

12:00-12:10    *Pause*

*Chairpersons: Ž. Čupić, G. Schmitz, P. Walde*

- 12:10-12:40    **PL-4**    **R. Pascal**, Montpellier, France  
*Kinetics, thermodynamics and the driving force for life and its origin*
- 12:40-13:10    **PL-5**    **Lj. Kolar-Anić**, Belgrade, Serbia  
*Selforganization of nonlinear nonequilibrium reaction systems*
- 13:10-13:40    **PL-6**    **S. Otto**, Groningen, Netherlands  
*Can we synthesize life in the lab? How chemistry may become biology*

13:40-15:00    *Lunch Break*

*Chairpersons: S. Anić, Yu. Kalvachev, N. Ostrovski*

15:00-15:30    **PL-7**    **G. Lente**, Pécs, Hungary  
*Chemical kinetic models of nanoparticle formation: nucleation and growth*

15:30-16:00    **PL-8**    **A. A. Vedyagin**, Novosibirsk, Russia  
*Outlook of metastable Pd-Rh alloys usage in the catalytic pollution control systems*

16:00-16:10    **Pause**

*Chairpersons: Z. Vukmirović, A. A. Vedyagin, I. Pašti*

16:10-16:40    **PL-9**    **R. Jerala**, Ljubljana, Slovenia  
*Coiled-coil protein origami – a new designed type of protein folds*

16:40-17:10    **PL-10**    **A. Jovović**, J. Raičević, Z. Vukmirović, Belgrade, Serbia  
*Postponed monitoring of environmental pollution caused by NATO bombing of Serbia in 1999*

Tuesday, September 25<sup>th</sup>

## The Natural Sciences Building

Entrance B (1st floor)

### B HALL

*Chairpersons: A. Antić-Jovanović, M. Stoiljković*

- 09:00-09:20    **B-1-SL**    **H. W. Siesler**  
*Hand-held Raman, mid-infrared and near-infrared spectrometers: State-of-the-art instrumentation and novel applications*
- 09:20-09:40    **B-2-SL**    **D. J. Biswas**  
*Development of a continuously tunable mid-infrared source and its application in laser assisted aerodynamic isotope separation*
- 09:40-10:00    **B-3-SL**    **A. Cricenti** and M. Luce  
*Early stage diagnosis of tumors and diseases by nanospectroscopy*

10:00-10:10    *Pause*

*Chairpersons: J. Savović, S. Marković*

- 10:10-10:30    **B-4-SL**    **E. N Brothers**  
*Limitations of Barrier Height Benchmarks*
- 10:30-10:50    **B-5-SL**    **M. M. Kuzmanović**, D. P. Ranković,  
J. J. Savović, M.D. Momčilović, J. Ciganovic, M. Trtica  
*Optical emission study of carbon plasma induced by TEA CO<sub>2</sub> laser*
- 10:50-11:10    **M1-SL**    **G. V. Janjić**, N. R. Filipović, M. V. Rodić,  
P. Ristić, M. Donnard, M. Gulea, T. Todorović  
*Theoretical techniques for clarification of structural and functional features of metal complexes*

11:10-11:40    *Coffee Break*

*Chairpersons: J. Jovanović, B. Šljukić*

- 11:40-11:50    **I-1-O**    **D. Fijan**, M. Wilson  
*Density anomaly as a function of tetrahedrality and bond angle in Stillinger-Weber potential*
- 11:50-12:00    **A-1-O**    **A. Amić**, Z. Marković, D. Amić  
*Guaiacyl moiety as a free radical scavenger: thermodynamic approach*
- 12:00-12.10    **E-1-O**    **V. Radulović**, M. Aleksić, V. Kapetanović,  
K. Karljiković-Rajić, M. Jovanović  
*An electroanalytical DPV/BDDE method for brimonidine determination in aqueous humor, short- and long-term stability*

12:10-15:00            **Lunch Break**

FREE AFTERNOON

Wednesday, September 26<sup>th</sup>

## **Social Program – Excursion to Fruška Gora**



**Belgrade - Kovilj – Mala Remeta – Vrdnik - Belgrade**

*Thursday, September 27<sup>th</sup>*

## The Natural Sciences Building

Entrance C (Ground level)

### C HALL

*Chairpersons: V. Dondur, Š. Miljanić*

09:00-09:30 **PL-11** **S. Macura** and P.K. Mishra  
*Physicochemical aspects of magnetic resonance  
microscopy: influence of temperature on the image  
contrast*

09:30-09:40 **Pause**

*Chairpersons: T. Novaković, Lj. Damjanović,*

09:40-10:00 **C-1-SL** **I. Djerdj**, S. Urban, P. Dolcet, L. Chen, M. Möller,  
O. Khalid, H. Camuka, R. Ellinghaus, C. Li,  
S. Gross, P. J. Klar, B. Smarsly, H. Over  
*In-situ study of the oxygen-induced transformation of  
pyrochlore  $Ce_2Zr_2O_{7+x}$  to the  $K-Ce_2Zr_2O_8$  phase*

10:00-10:20 **C-2-SL** **D. Lončarević**, J. Dostanić, J. Papan,  
J. Nedeljković  
*Photocatalytic hydrogen production over nickel  
modified titania catalysts*

10:20-10:40 **C-3-SL** E. Kiss, **S. Panić**  
*Catalysis of solid state reactions*

10:40-11:10 **Coffee Break**

*Chairpersons: S. Marinović, S. Panić*

11:10-11:30 **C-4-SL** **N. Ostrovskii**, V. Parmon  
*Hierarchy of slow relaxations in catalyst dynamics*

11:30-11:50 **C-5-SL** **N. Jović-Jovičić**, Z. Mojović, M. Ajduković,  
P. Banković, T. Mudrinić, S. Marinović,  
A. Milutinović-Nikolić  
*Nanostructured organic-inorganic hybrid smectite  
based composites*

11:50-12:00 **C-6-O** **I. Lukić**, Ž. Kesić, M. Zdujić, D. Skala  
*Synthesis of calcium oxide based catalysts for  
biodiesel production*

12:00-12:10    **C-7-O**    **M. Gabrovska**, T. Tabakova, I. Ivanov,  
D. Kovacheva, V. Idakiev  
*Gold supported on NiAl layered double hydroxide  
catalysts for water-gas shift reaction*

12:10-12:20    **Pause**

*Chairpersons: G. Lente, N. Ostrovski*

12:20-12:30    **C-8-O**    **T. M. Karnaukhov**, A. A. Vedyagin,  
S. V. Cherepanova, V. A. Rogov,  
I. V. Mishakov  
*Synthesis of binary Ni-Mg-O oxide system and study  
on its behavior in reduction-oxidation cycles*

12:30-12:40    **C-9-O**    **V. L. Temerev**, A. A. Vedyagin, K. N. Iost,  
L. V. Pirutko, E. V. Starokon, Y. V. Shubin,  
P. E. Plyusnin, S. V. Cherepanova,  
A. M. Volodin, R. M. Kenzhin,  
V. O. Stoyanovskii and D. A. Shlyapin  
*Synthesis of Ag-modified adsorptive-catalytic systems  
based on ZSM-5 and  $\gamma$  Al<sub>2</sub>O<sub>3</sub> and their study under  
“cold start” conditions*

12:40-12:50    **C-10-O**    **K. N. Iost**, V. A. Borisov, V. L. Temerev,  
Yu. V. Surovikin, M. V. Trenikhin, A. B. Arbuzov,  
D. A. Shlyapin, P. G. Tsyrlunikov  
*Effect of the carbon support graphitization on the  
thermal stability and activity of the Ru-Ba-Cs/C  
catalyst*

12:50-13:00    **C-11-O**    **T. Tabakova**, I. Ivanov, E. Kolentsova, P. Petrova,  
Y. Karakirova, G. Avdeev, K. Ivanov, V. Idakiev  
*WGS activity of gold catalysts on alumina  
supported copper-manganese oxides with different  
composition*

13:00-13:10    **C-12-O**    V. Kiss, L.J. Csépes-Ruzicska, B.M. Hülvely, P.  
Tarczali-Sarudi, I. Fábíán, **K. Ósz**  
*Reaction between sulfur(IV) and chloro-1,4-  
benzoquinones*

13:10-13:20    **C-13-O**    **A. P. Koskin**, A. O. Borodin  
*Solvent-free alcohol acylation by acetic acid  
over novel lanthanide-grafted catalytic system*

The Natural Sciences Building  
Entrance B (1st floor)

**B HALL**

*Chairpersons:* D. Krstić, N. Jović-Jovičić

- 09:40-10:00 **H-1-SL** **R. Tomovska**, M. Prosheva, J. Blazhevska-Gilev  
*UV shielding coatings based on graphene/CNT radical scavenger fillers*
- 10:00-10:20 **K-1-SL** **M. Ferus**, P. B. Rimmer, I. P. Waldmann, O. Ivanek, P. Kubelík, S. N. Yurchenko, A. Knížek, T. Burian, J. Dostál, L. Juha, R. Dudzak, M. Krus, J. Tennyson, S. Civiš  
*Spectra and origin of biomolecules on earth-like exoplanet with reducing atmospheres undergoing late heavy bombardment*
- 10:20-10:30 **K-2-O** **M. Molnár**, O. Horváth, R. Földényi  
*Sorption and degradation of 4-nitrophenol using oil shale and its composite forms*
- 10:30-10:40 **J-1-O** **I. Sedov**  
*Influence of the cross-link density on the rate of crystallization of cross-linked  $\epsilon$ -polycaprolactone*
- 10:40-11:10 **Coffee Break**

*Chairpersons:* A. Popović-Bijelić, V. Marković

- 11:10-11:30 **F-1-SL** **D. Krstić**, N. Trifunović, D. Zigar, V. Marković, Ž. Hederić  
*The effect of the magnetic field in the living world*
- 11:30-11:50 **F-2-SL** M. Zarić, I. Grković, N. Mitrović, I. Guševac Stojanović, J. Martinović, **D. Drakulić**  
*Cerebral ischemia and hormone therapy affects components of purinergic signalling*
- 11:50-12:10 **F-3-SL** **M. Čolović**  
*Effect of polyoxometalates on membrane enzymes*

12:10-12:20 **Pause**

*Chairpersons:* M. Čolović, D. Drakulić

- 12:20-12:30 **F-4-O** **A. Vesković**, A. Pavićević, Đ. Nakarada, B. Prokić, M. Perović, S. Kanazir, M. Mojović, A. Popović-Bijelić  
*Aminoxyl spin probes as blood brain barrier integrity markers – still a challenge after 40 years*

- 12:30-12:40    **F-5-O**    **A. Rodić**, B. Blagojević, M. Đorđević,  
K. Severinov, M. Đorđević  
*Assessing CRISPR-Cas design principles by  
biophysical modeling*
- 12:40-12:50    **F-6-O**    **S. Graovac**, A. Rodić, M. Djordjević  
*Including population dynamics effects in modeling  
regulation of bacterial restriction modification  
systems*
- 12:50-13:10    **O-1-SL**    D. Ružić, N. Djoković, M. Petković, D. Agbaba, M.  
Lahtela-Kakkonen, A. Ganesan, **K. Nikolić**  
*Rational design of selective histone deacetylase  
inhibitors*

13:20-15:00                    **Lunch Break**

## **ENTRANCE HALL**

### 15:00-16:00    **POSTER SESSION**

*Chairpersons: D. Ranković, S. Blagojević*

- |                                                                 |            |
|-----------------------------------------------------------------|------------|
| Chemical Thermodynamics                                         | <b>(A)</b> |
| Spectroscopy, Molecular Structure, Physical Chemistry of Plasma | <b>(B)</b> |
| Macromolecular Physical Chemistry                               | <b>(J)</b> |
| Pharmaceutical Physical Chemistry                               | <b>(O)</b> |

Posters should be placed between 14.45 and 15.00 and removed between 16:00 and 16:15

16:00-16:15    **Pause**

### 16:15-17:15    **POSTER SESSION**

*Chairpersons: T. Mudrinić, S. Maćešić*

- |                                                                                                          |            |
|----------------------------------------------------------------------------------------------------------|------------|
| Biophysical Chemistry, EPR Investigations of Bio-Systems,<br>Photochemistry, Radiation Chemistry         | <b>(F)</b> |
| Environmental Protection, Forensic Sciences, Geophysical Chemistry,<br>Radiochemistry, Nuclear Chemistry | <b>(K)</b> |

Posters should be placed between 16.00 and 16.15 and removed after 17.15

**Friday, September 28<sup>th</sup>**

**The Natural Sciences Building**  
Entrance C (Ground level)

**C HALL**

*Chairpersons: Lj. Kolar-Anić, L. Schreiberova*

09:00-09:20    **D-1-SL**    **I. Schreiber**, F. Muzika, V. Radojković,  
L. Schreiberová  
*Using stoichiometric network theory to identify  
mechanisms of nonlinear reactions*

09:20-09:40    **D-2-SL**    **F. Muzika**, L. Schreiberová and I. Schreiber  
*Dynamic behaviour of single and coupled glycolytic  
oscillators*

09:40-10:00    **D-3-SL**    **G. Schmitz**, S. D. Furrow  
*Kinetics of reactions of iodine inorganic compounds  
in acidic solutions*

10:00-10:10    **Pause**

*Chairpersons: I.N. Bujanja, F. Muzika*

10:10-10:30    **D-4-SL**    **M. Orlik**, A. Wiśniewski, M. Jędrusiak,  
R. Jurczakowski, M. T. Gorzkowski, K. Pękała  
*Recently revealed dynamic and mechanistic aspects  
of the H<sub>2</sub>O<sub>2</sub>-based homogeneous oscillatory reactions*

10:30-10:50    **D-5-SL**    **K. Novakovic**, A. Isakova  
*Expanding the horizons of Pd-catalysed oscillatory  
carbonylation reactions: solvent, substrate, catalyst*

10:50-11:10    **D-6-SL**    **A. K. Horváth**  
*Categorizing of systems featuring clock behaviour  
unequivocally*

11:10-11:40    **Coffee Break**

*Chairpersons: M. Orlik, K. Novaković*

- 11:40-12.00    **D-7-SL**    **Ž. Čupić,** V. Vukojević, A. Stanojević,  
V.M. Marković, S. Maćešić, Lj. Kolar-Anić  
*Decoupling of autocatalytic and autoinhibitory steps  
in a stoichiometric model of the hypothalamic-  
pituitary-adrenal axis model*
- 12:00-12.20    **D-8-SL**    **E. Szabo**  
*Adapting the Belousov-Zhabotinsky reaction as a  
quantitative task for the 50th international chemistry  
olympiad*
- 12:20-12.40    **D-9-SL**    **D. Horváth,** L. Gyevi-Nagy, E. Lantos, Á. Tóth  
*Reaction-diffusion fronts driven by the autocatalytic  
hydrogenase reaction*
- 12:40-15:00                    ***Lunch Break***

## ENTRANCE HALL

15:00-16:00 **POSTER SESSION**

*Chairperson: M. Ajduković, D. Lončarević*

Kinetics, Catalysis	(C)
Electrochemistry	(E)
Organic Physical Chemistry	(G)
Physical Chemistry of Condensed Phases, Solid State and Fluids	(I)
Physico-Chemical Analysis	(R)

Posters should be placed between 14:45 and 15:00 and removed between 16:00 and 16:15.

16:00-16:15 *Pause*

16:15-17:15 **POSTER SESSION**

*Chairperson: V. Radonjić, J. Senćanski*

Material Science	(H)
Food Physical Chemistry	(Q)

Posters should be placed between 16:00 and 16:15 and removed between 17:15 and 17:30.

17:15-17:30 *Pause*

17:30-18:30 **POSTER SESSION**

*Chairperson: A. Stanojević, M. Pagnacco*

Nonlinear Dynamics, Oscillatory Reactions, Chaos	(D)
Phase Boundaries, Colloids, Liquid Crystals, Surface-Active Substances	(L)
Complex Compounds	(M)
General Physical Chemistry	(N)
Education, History	(P)

Posters should be placed between 17:15 and 17:30 and removed after 18:30.

## C HALL

18:40-19:00 **CLOSING SESSION**

## POSTERS

- (A) CHEMICAL THERMODYNAMICS**
- A-2-P** **A.V. Knyazev**, A.S. Shipilova, E.V. Gusarova,  
S. S. Knyazeva, A.A. Amosov, V.N. Emel'yanenko  
*Thermodynamic properties of biologically active substances*
- A-3-P** **V. Lutsyk**, V. Vorob'eva, A. Zelenaya  
*Influence of nickel to the copper-sulphide interaction: 3D  
computer model of the Ni-Cu-NiS-Cu<sub>2</sub>S subsystem T-x-y  
diagram*
- (B) SPECTROSCOPY, MOLECULAR STRUCTURE,  
PHYSICAL CHEMISTRY OF PLASMA**
- B-6-P** **E. H. Avdović**, A. Amić, D. Milenković, V. V. Jevtić,  
S. R. Trifunović  
*Experimental and theoretical vibrational study of 3-(1-(2-  
mercaptoethylamino) ethylidene)-chroman-2,4-dion*
- B-7-P** **Ž. Gagić**, M. Jovanović, D. Agbaba, K. Nikolić  
*3D-Molecular pharmacophore determination of PI3K- $\alpha$   
kinase inhibitors*
- B-8-P** **D. Ružić**, A. Cebzan, K. Nikolić  
*A 3D-QSAR study on a set of MAPK1 inhibitors*
- B-9-P** N. Đoković, A. Rajković, **K. Nikolić**  
*3D-QSAR study of pyrazolo[3,4-d]pyrimidines and 1,3,4-  
thiadiazoles as Bcr-Abl1 inhibitors*
- B-10-P** O. Kovačević, **S. Zlatanović**, B. Kovačević, S. Ostojić,  
S. Gorjanović  
*Characterisation of curcumin-pectin conjugates by UV-VIS  
spectroscopy*
- B-11-P** **D. Dimić**, E. Avdović, S. Trifunović, I. Potočňák,  
J. Dimitrić-Marković, Z. Marković  
*Synthesis and crystallographic structure of novel coumarin  
derivative with dopamine*
- B-12-P** **S. V. Jerosimić**, F. A. Gianturco, R. Wester  
*Associative detachment (AD) paths for H and C<sub>n</sub>N<sup>-</sup>  
(n=1,3,5) in the gas-phase*
- B-13-P** Z. Marković, **J. Đorović**, D. Milenković, S. Jeremić,  
Lj. Joksović, A. Amić  
*Antiradical activity of selected triazole compounds*
- B-14-P** **J. Tošović**, S. Marković  
*Reactivity of chlorogenic acid toward hydroxyl radical  
relative to trolox in benzene*
- B-15-P** **Z. Özer**, T. Kılıç, S. Çarıkç, A. Azizoğlu  
*Synthesis, structural characterization, spectroscopic  
properties, and theoretical investigations of acetoxy siderol*

- B-16-P** **D. P. Ranković**, M. M. Kuzmanović, J. J. Savović, S. Živković, M. Stoilković, M. Trtica  
*Preliminary investigation of the plasma induced on pottery sample by TEA CO<sub>2</sub> laser*
- B-17-P** **B.Zadykowicz**  
*Chemiluminescence of acridinium derivatives with hydrogen peroxide in alkaline media*
- B-18-P** **M. Pieńkos**, A. Romanowska, B. Zadykowicz  
*Molecular modeling as a modern diagnostic tool for diseases*
- B-19-P** **A.V. Kosyakov**, A. Y. Zavrzhnov, S.S. Berezin  
*High-temperature vapor-phase spectrophotometric analysis of the Ga-Cl and Ga-I systems*
- B-20-P** **G. V. Janjić**, B. Konovalov, M. D. Živković, J. Z. Milovanović, D. B. Djordjević, A. N. Arsenijević, I. Vasić, A. Franich, S. Rajković, M. I. Djuran  
*Structural characterization of binuclear platinum(II) complex adducts with DNA and antitumor activity*
- B-21-P** **G. V. Janjić**, M. Sarvan, I. Đorđević, D. Sredojević, M. Petković Benazzouz  
*Hydrogen bond ability of coordinated oxygen atoms of glycolate ligand*

**(C) KINETICS, CATALYSIS**

- C-14-P** M. Marković, **S. Marinović**, T. Mudrinić, N. Jović-Jovičić, M. Ajduković, A. Milutinović-Nikolić, P. Banković  
*Catalytic oxidation of tartrazine in the presence of radicals generated from potassium peroxydisulfate using cobalt impregnated pillared montmorillonite*
- C-15-P** T. Savić, J. Kuljanin –Jakovljević, **N. Abazović**, M. Čomor  
*Rhodamine B photodegradation over hydrothermally synthesized CdIn<sub>2</sub>S<sub>4</sub>*
- C-16-P** **G. M. Nikolić**, S. C. Živanović  
*HPLC-DAD study of catechol autoxidation in the presence of Mg(II) and Ca(II) ions*
- C-17-P** **S. B. Marković**, I. Stojković-Simatović, S. Ahmetović, Lj. Veselinović, S. Stojadinović, V. Rac, S. D. Škapin, D. Uskoković  
*Enhanced photo (electro) catalytic properties of ZnO particles synthesized by CTAB-assisted microwave processing*

- C-18-P** **Lj. Gavrilović**, J. Brandin, A. Holmen, H. J. Venvik, R. Myrstad, E. A. Blekkan  
*The effect of aerosol-deposited ash components on a cobalt-based Fischer-Tropsch catalyst*
- C-19-P** **M. Hadnadev-Kostić**, J. Dostanić, T. Vulić, A. Jokić  
*ZnFe-Mixed metal oxides as efficient and promising photocatalysts*
- C-20-P** **J. Dostanić**, D. Lončarević  
*Photocatalytic hydrogen production over nickel modified titania catalysts*

**(D) NONLINEAR DYNAMICS, OSCILLATORY REACTIONS, CHAOS**

- D-10-P** **A. M. Spasić**, J.M. Jovanović, V. Manojlović, M. Jovanović  
*Electrocoalescence process in the frame of decoherence theory*
- D-11-P** **M. Anđelković**, A. Stanojević, V. M. Marković, Ž. Čupić, Lj. Kolar-Anić  
*Modelling of externally induced cholesterol pulses on hypothalamic-pituitary-adrenal axis perturbed with ethanol*
- D-12-P** **M. Mažić**, I. N. Bubanja, D. Stanisavljev, S. N. Blagojević  
*The Bray-Liebafsky oscillating chemical reaction as a system for quinine detection*
- D-13-P** J. Damjanović, J. Maksimović, K. Stevanović, B. Božić, **M. C. Pagnacco**  
*Properties of the Briggs-Rauscher reaction in different alcohol-water mixtures*
- D-14-P** **N. I. Potkonjak**  
*The influence of positive feedback IR compensation on oscillating electrochemical system: Copper - 1M phosphoric acid*
- D-15-P** **L. Schreiberová**, F. Muzika, I. Schreiber  
*pH oscillation types in urea-urease membrane reactor*
- D-16-P** **J. P. Maksimović**, Ž. D. Čupić, S. R. Anić, Lj. Z. Kolar-Anić, E. Greco, R. Cervellati, M.C. Pagnacco  
*Gallic acid effect on the Briggs-Rauscher reaction dynamics*
- D-17-P** **K. Stevanović**, I. N. Bubanja, D. Stanisavljev  
*Reducing mixing effects with glass powder in Bray-Liebafsky oscillatory reaction*
- D-18-P** **N. I. Potkonjak**  
*Prediction of oscillatory electrochemical system evolution by analysis of corresponding attractor structure*

- D-19-P** **S. Maćešić**, Ž. Čupić, K. Novaković, S. Anić, Lj. Kolar-  
Anić  
*Stoichiometric network analysis of the model of oscillatory  
carbonylation of PEGA in open reactor*
- D-20-P** **S. Maćešić**  
*Construction of periodic solution in the model of Bray-  
Liebhafsky oscillatory reaction*
- D-21-P** **S. Maćešić**  
*Optimization of the model of Bray-Liebhafsky reaction  
using steady-state concentrations as parameters*

**(E) ELECTROCHEMISTRY**

- E-2-P** **J. Senćanski**, M. Vujković, D. Bajuk Bogdanović,  
I. Stojković Simatović, S. Uskoković-Marković, S. Mentus  
*The re-synthesis of a cathode material from spent Li-ion  
batteries and its evaluation in an aqueous LiNO<sub>3</sub> solution*
- E-3-P** **T. Mudrinić**, N. Jović-Jovičić, Z. Mojović, A. Milutinović-  
Nikolić, S. Marinović, M. Ajduković, P. Banković  
*Electrochemical behaviour of nicotine adsorbed on  
montmorillonite*
- E-4-P** **J. Senćanski**, M. Vujković, M. Pagnacco, S. Mentus  
*The electrochemical behavior of purpurin in an aqueous  
solution of sodium nitrate*
- E-5-P** J. Rupar, **M. Aleksić**, V. Dobričić, O. Čudina, J. Brborić,  
S. Vladimirov  
*Application of electrochemical biosensor for investigation of  
acridine derivatives - DNA interaction*
- E-6-P** J. Rupar, **A. Janošević Ležaić**, T. Ilić, M. Aleksić  
*Electrochemical DNA biosensor modified with carbonized  
polyaniline*
- E-7-P** B.N. Malinovic, **T. Djuricic**, B. Mitric  
*Electro-oxidation of landfill leachate after electrocoagulation  
treatment with aluminum electrode*
- E-8-P** J. Milikić, K. Radinović, U. Stamenović, V. Vodnik,  
S.P. Ahrenkiel, **B. Šjukić**  
*Au-PANI sensor for detection of arsenic in aqueous media*
- E-9-P** **A. S. Ilić**, F. T. Pastor, S. Ž Gorjanović, M. Antić,  
D. Ž. Sužnjević  
*Application of modified HPMC assay to aromatic plants  
antioxidant activity determination*

- E-10-P** **A. Rakić**, J. Milikić, B. Šljukić, I. Pašti, G. Ćirić-Marjanović  
*Electrochemical performance of carbonized composite of polyaniline with collagen*
- E-11-P** **D. S. Shevtsov**, I. D. Zarcyn, E. S. Komarova  
*Modeling of the process of electrochemical corrosion of steel reinforcement in concrete using the batch bimetal sensor. evaluation of the protective effect of deep penetration hydrophobizators*
- E-12-P** **A. Gezović**, M. Vujković, D. Jugović, I. Janković-Častvan, I. Stojković Simatović, S. Mentus  
*Synthesis, characterization and electrochemical properties of  $Na_{0.44}MnO_2$  in  $NaNO_3$  and  $LiNO_3$  aqueous solution*
- E-13-P** **E. S. Komarova**, D. S. Shevtsov, I. D. Zarcyn  
*Application of a modified method of polarization resistance (Mansfeld method) for calculating the rate of corrosion of reinforced steel in concrete*
- E-14-P** **F. T. Pastor**, D. Ž. Sužnjević, S. Ž. Gorjanović  
*Modification of HPMC assay for determination of antioxidant activity of samples poorly soluble in water*

**(F) BIOPHYSICAL CHEMISTRY, EPR INVESTIGATIONS OF BIOSYSTEMS, PHOTOCHEMISTRY, RADIATION CHEMISTRY**

- F-7-P** **Z. Džambaski**, A. Kolarević, B. S. Ilić, A. Rašović, A. Šmelcerović, B. P. Bondžić  
*DNase I Inhibitory properties of 4-thiazolidinone S-oxides: Experimental and docking studies*
- F-8-P** **A. Rakić**, D. Slavnić, G. Janjić, N. Vukelić  
*Transport capabilities of human serum albumin (HSA) for diclofenac*
- F-9-P** **S. Tanasković**, M. Antonijević-Nikolić, J. Antić-Stanković, B. Dražić  
*Cytotoxic activity of macrocyclic Cu(II) benzene carboxylate complexes in vitro*
- F-10-P** Đ. Petrović, R. Vujasin, **K. Kumrić**, A. Devečerski, M. Omerašević, M. Mirković, Lj. Matović  
*Methylene blue degradation by irradiation of solution containing carbon waste tire char*
- F-11-P** A. Radović, **D. Dimić**, Đ. Nakarada, J. Dimitrić-Marković  
*EPR and theoretical investigation of hydroxyl radical scavenging of selected catecholamines*

- F-12-P** Z. Džambaski, A. Kolarević, B. S. Ilić, A. Rašović, A. Šmelcerović, **B. P. Bondžić**  
*DNA-SE I Inhibitory properties of new benzocyclobutane-2,5-diones experimental and docking studies*
- F-13-P** **A. Pavićević**, A. Vesković, M. Lakočević, A. Popović-Bijelić, M. Mojović  
*Spin-labeling EPR spectroscopy as a useful tool for the investigation of biophysical properties of blood cell membranes and serum albumin*
- F-14-P** S.M. Mitić, **Ž. Mitić**, B. Danilović, S. Živanović, S. Stojanović, S. Najman, D. Savić  
*Application of MALDI-TOF/TOF mass spectrometry in differentiation of yeasts*
- F-15-P** **J. Krstić**, A. Radosavljević, J. Spasojević, D. Jovanović, Z. Rakočević, S. Popović, Z. Kačarević-Popović  
*Development of bioactive Ag/CS-PVA hydrogel membrane containing chitosan nanoparticles by ionizing radiation*
- F-16-P** **I. N. Bubanja**, B. Lončarević, M. Lješević, V. Beškoski, G. Gojgić-Cvijović, Z. Velikić, D. Stanisavljev  
*Influence of the low frequency ranges of magnetic field on saccharomyces cerevisiae respiration*
- F-17-P** **A. Bondžić**, T. Parac Vogt, A. Vujačić Nikezić, D. Krstić, M. Čolović  
*Influence of 12-tungstosilicic acid and 12-tungstophosphoric acid on the activity and secondary structure of acetylcholinesterase*
- F-18-P** **M. Čolović**, D. Krstić, M. Luce, A. Cricenti  
*Effect of polyoxometalates on synaptic plasma membrane structure*
- F-19-P** M. Čolović, A. Bondžić, A. Vujačić Nikezić, **D. Krstić**  
*Oxidative stress responses of 12-tungstosilicic and 12-tungstophosphoric acid*
- F-20-P** **D. Arandić**, P. Božović, J. Stanković Petrović, Đ. Lazarević, S. Čeklić, O. Ciraj-Bjelac, V. Antić  
*Influence of magnification on scattered dose level around patient in interventional radiology*
- F-21-P** Đ. Nakarada, A. Pavićević, A. Vesković, B. Pejin, A. Popović-Bijelić, **M. Mojović**  
*EPR Determination of antioxidative activity of water-insoluble compounds towards biologically relevant radicals – example of avarol*
- F-22-P** **D. Bartolić**, M. Stanković, V. Maksimović, D. Mutavdžić, K. Radotić  
*Non-invasive characterization of aflatoxin-stressed wheat seeds using 2D EPR imaging and EEM fluorescence spectroscopy*

- F-23-P** Č. N. Radenović, G. V. Maksimov, O. Slatinska, F. Protopopov, N. Delić, Z. Čamdžijja, J. Pavlov, M. Sečanski, M. D. Pavlović, **M. V. Beljanski**  
*Infra red spectroscopic analysis of maize inbred line grains: Identification of biomolecular unstable states and their characterization*
- F-24-P** **J. Simonović Radosavljević**, J. Stevanić, D. Đikanović, L. Salmén, K. Radotić  
*Orientation of cell wall polymers in the arabidopsis thaliana STEM*
- F-25-P** **M. Zarić**, D. Drakulić, M. Dragić, I. Guševac Stojanović, N. Mitrović, I. Grković, J. Martinović  
*Lack of dehydroepiandrosterone treatment efficiency in rat model of transient ischemic attack?*
- F-26-P** **N. Mitrović**, M. Dragić, M. Zarić, D. Drakulić, I. Guševac Stojanović, J. Martinović, I. Grković  
*Estrogen receptors modulate ectonucleotidases activity in hippocampal synapses of male rats*
- F-27-P** **M. Maljković**, M. Beljanski, N. Mitić  
*Analysis of amino acid distances in protein chains*
- F-28-P** **V. Dragičević**, D. Opsenica, J. Mesarović M. Brankov, M. Simić, N. Kravić, D. Milojković-Opsenica  
*The effect of some mixed tetraoxanes on germination and antioxidants in maize seedlings*

**(G) ORGANIC PHYSICAL CHEMISTRY**

- G-1-P** **G. M. Nikolić**, A. M. Veselinović, M. G. Nikolić, J. V. Živković  
*Application of principal component analysis to setschenow constants of organic compounds*
- G-2-P** **M. Stojanović**, J. Aleksić, Z. Džambaski, M. Baranac-Stojanović  
*Determination of configuration and conformation of diethyl 4-(pyrrolidin-1-ylmethylene)pent-2-enedioate*
- G-3-P** **A. Rašović**, M. Stojanović, J. Aleksić, B. Bondžić, M. Baranac-Stojanović  
*Tracking the changes of push-pull effect during the formation of thiazolo[3,2-c]pyrimidine from 2-alkylidene-4-oxothiazolidine*
- G-4-P** **M. Stojanović**, J. Aleksić, M. Baranac-Stojanović  
*Is 3-aminoacrylic group better donor or acceptor of  $\pi$ -electron density?*
- G-5-P** J. P. Blagojević Filipović, **S. D Zarić**  
*Stacking interactions of hydrogen-bridged rings. analyses of crystal structures and quantum chemical calculations*

**G-6-P** D. Sretenović, G. Jovanović, D. Milenković, E. Avdović, J. Đorović, **D. Dimić**, J. Dimitrić Marković  
*The effect of additional oh group on the antiradical activity in dopamine/6-oh dopamine and octopamine/norepinephrine pairs*

**G-7-P** **M. Wera**, I. E. Serdiuk, A. D. Roshal  
*The crystal structure of novel asymmetric flavone derivatives*

**(H) MATERIAL SCIENCE**

**H-2-P** M. Petrović, M. D. Radović, **M. Kostić**, J. Mitrović, S. Najdanović, N. Velinov, A. Bojić  
*Effect of electrode potential on morphology and chemical composition of electrosynthesized bismuth(III) oxide*

**H-3-P** M. D. Radović, **M. Kostić**, M. Petrović, J. Mitrović, N. Velinov, D. Bojić, A. Bojić  
*Kinetics studies of reactive blue 19 dye adsorption on nanosorbent iron(III) oxide prepared by a modified low temperature urea method*

**H-4-P** **Z. Nikolić**  
*Modeling of intergranular micro-capacitance as a function of neck growth during ceramic sintering*

**H-5-P** **Lj. Rožić**, S. Petrović, D. Lončarević, S. Stojadinović, V. Jović, J. Lamovec  
*Effect of annealing temperature on structural properties of TiO<sub>2</sub>-CeO<sub>2</sub> powders*

**H-6-P** **E. N. Bulanov**, A.V. Knyazev, N. N. Smirnova, M.I. Lelet, Z. Xu, A.G. Blokhina  
*Anomalies of the low-temperature heat capacity of some apatites*

**H-7-P** **O.V. Krashennikova**, A.V. Knyazev, E.V. Syrov, G.A. Borisov  
*Synthesis and high-temperature polymorphism of Dion-Jacobson phase KCa<sub>2</sub>NaNb<sub>4</sub>O<sub>13</sub>*

**H-8-P** I. D. Kodranov, B. P. Dojčinović, B. Antić, D. D. Manojlović, M. Ognjanović, **M. V. Pergal**  
*Polyurethane/ferrite nanocomposites: Preparation and physical properties*

**H-9-P** D. Nikolova, **J. Krstić**, D. Crişan  
*Bulk and surface structure of NiAl layered double hydroxides at different Ni/Al ratios*

**H-10-P** **J. Jovanović**, B. Adnađević, R. Tomovska  
*The effect of drying mode on 3D graphene/OH functionalised poly(butylacrylate -co-methylmethacrylate) composites*

- H-11-P** G. Damian, F. Damian, **Zs. Szakacs**, G. Iepure, D. Aştefanei, D. Birgaoanu, E. Anitas  
*Initial report on the minerals present in a nano-/microstructured separate of the Orasu-Nou (Romania) bentonite*
- H-12-P** F. Damian, G. Damian, **Zs. Szakacs**, G. Iepure, E. Anitas  
*Heavy metal distribution dependence on soil profile and particle sizes in soil types*
- H-13-P** D. Todoran, R. Todoran, **Zs. Szakacs**, E. Anitas  
*Some time dependent electrical and optical properties of the K-ethyl xantate solution - sphalerite natural mineral interface*
- H-14-P** **M. Kragović**, S. Pašalić, I. Ristović, S. Krstić, V. Dodevski, J. Milojković, M. Stojmenović  
*Using natural and Fe(III)-modified zeolite encapsulated with alginate for heavy metals removal*
- H-15-P** **T. M. Karnaukhov**, A. M. Volodin, V.O. Stoyanovskii, A. A. Vedyagin  
*Core-shell structures for stabilization of size and phase composition of the oxide nanoparticles at elevated temperatures*
- H-16-P** M. Vukčević, **B. Pejić**, B. Lazić, M. Kostić, M. Laušević  
*Adsorption and surface properties of alkaline and oxidative treated flax*
- H-17-P** S. Pavlović, B. Kostić, D. Marinković, M. Gabrovska, D. Nikolova, D. Lončarević, **M. Stanković**  
*Structure and morphology of calcined lanthanum doped hydrotalcite*
- H-18-P** D. Marinković, M. Gabrovska, D. Nikolova, S. Pavlović, B. Milovanović, **M. Stanković**  
*Synthesis and characterization of mixed oxides derivate from Li modified Mg-Al hydrotalcites*
- H-19-P** **B. Gaković**, P. A. Danilov, S. I. Kudryashov, S.M. Petrović, D. Milovanović, D. Peruško, A.A. Ionin  
*Spalative ablation of nano-layer thin films by single ultra-short laser pulse*
- H-20-P** D. Sejdinović, **B. Laban**, M. M. Marković, U. Ralević, A. Badnjević, E. Omanović Mikličanin, A. Jokić, V. Vasić  
*Green synthesis of L-methionine capped silver and gold nanoparticles*
- H-21-P** **T. Momić**, T. Lazarević-Pašti, B. Laban, M. M. Marković, V. Vasić  
*Synthesis and characterization of quercetin-conjugated gold nanoparticles*

- H-22-P** T. V. Maksimović, **J. P. Maksimović**, S. Đ. Stojadinović,  
P. I. Tančić, Z. P. Nedić  
*Synthesis of calcium doped phosphate tungsten bronze*
- H-23-P** N. D. Abazović, M. I. Čomor, T. D. Savić, **T. B. Novaković**  
*Some properties of alumina/zirconia composite ceramics*
- H-24-P** **M. Kostić**, M. D. Radović, M. Petrović, S. Najdanović,  
N. Velinov, D. Bojić, A. Bojić  
*Sorption of Pb(II) ions from aqueous solutions by  
chemically modified corn cob*
- H-25-P** **M. Jovičić**, V. Teofilović, R. Poreba, J. Pavličević, O. Bera,  
S. Sinadinović-Fišer, M. Janković  
*Thermomechanical behavior of epoxy resins modified with  
organoclay nanoparticles*
- H-26-P** F. Marinković, **B. Stanković**  
*The effects of NaA zeolite weight fraction on thermal  
properties of LDPE/NaA zeolite composites*
- H-27-P** F. Marinković, **B. Stanković**, N. Tadić  
*XRD Method for quantitative determination of filler weight  
fraction in polymers composites*
- H-28-P** **B. Stanković**, F. Marinković  
*Analyses of isothermal dehydration kinetics of PAAG  
hydrogel by Maxwell-Boltzmann distribution of activation  
energies*
- H-29-P** **S. Janković**, D. Milisavić, P. Schlender, D. Jelić  
*Synthesis of ZnO-Ag nanoparticles by solvent free method  
and their characterization*
- H-30-P** **A. Bondžić**, A. Vujačić Nikezić, B. Kalska, U. Klekota,  
B. Laban, V. Vodnik, V. M. Vasić  
*Interaction between gold nanoparticles and selected  
antitumor gold complexes*

**(I) PHYSICAL CHEMISTRY OF CONDENSED PHASES,  
SOLID STATE AND FLUIDS**

- I-2-P** **O. Govedarica**, M. Janković, S. Sinadinović-Fišer,  
V. Teofilović, J. Budinski-Simendić, N. Vukić  
*Characterization of the epoxidized flaxseed oil as an raw  
material for the polymer industry*
- I-3-P** **I. I. Grinvald**, I. Yu. Kalagaev, R. V. Kapustin  
*Cluster formation in organic liquids*
- I-4-P** **I. Stanciu**  
*Method of determination viscosity index improvers for  
multi-grade oil of copolymer hydrogenated poly (isoprene-  
co-styrene)*

**I-5-P**            **Z. Velikić**, D. Veselinović  
*Absorption spectrum of a saturated diphenylamine solution in the magnetically treated water*

**(J)            MACROMOLECULAR PHYSICAL CHEMISTRY**

**J-2-P**            B. D. Lončarević, G. Dj. Gojgić-Cvijović,  
**D. M. Jakovljević**, V. P. Beškoski, M. M. Vrvic  
*Oxidative transformation of levan produced by bacillus licheniformis strain*

**J-3-P**            **U. Stamenović**, V. Vodnik, M. Otoničar, S. D. Škapin,  
M. Mitrić  
*Silver-polyaniline-polyvinylpyrrolidone nanocomposites: In situ synthesis and characterization*

**J-4-P**            J. V. Džunuzović, E. S. Džunuzović, B. M. Marković,  
A. B. Nastasović, **I. S. Stefanović**  
*Surface characteristics of polyurethane networks based on polycaprolactone*

**J-5-P**            **I. Ristić**, J. Tanasić, M. Janković, A. Aroguz, S. Cakić,  
N. Vukić, J. Budinski-Simendić  
*Synthesis of high molecular weight polyacrylamide*

**J-6-P**            **B. M. Marković**, I. S. Stefanović, J. V. Džunuzović,  
Z. P. Sandić, Lj. T. Suručić, A.E. Onjia, A. B. Nastasović  
*Kinetics and thermodynamics of Mo(VI) and Re(VII) sorption on amino-functionalized magnetic polymer*

**J-7-P**            **B. M. Marković**, I. S. Stefanović, J. V. Džunuzović,  
E. S. Džunuzović, A. Dapčević, A. B. Nastasović  
*XRD and TGA study of polymer/magnetite nanocomposite*

**(K)            ENVIRONMENTAL PROTECTION, FORENSIC SCIENCES, GEOPHYSICAL CHEMISTRY, RADIOCHEMISTRY, NUCLEAR CHEMISTRY**

**K-3-P**            T. Anđelković, **I. Kostić**, D. Anđelković, T. Cvetković,  
D. Pavlović  
*DEHP leaching from PVC parts of transfusion set after UV treatment*

**K-4-P**            **S. Talić**, A. Martinović Bevanda, M. Ćurlin, T. Kraljević  
*Seasonal variations of NO<sub>2</sub>, O<sub>3</sub> and PM<sub>10</sub> in Mostar, Bosnia and Herzegovina*

**K-5-P**            **B. Savić**, T. Brdarić, I. Mihajlović, S. Milutinović,  
M. Pijović, J. Georgijević, G. Tasić  
*Monte Carlo simulation as an alternative approach for estimation of uncertainty measurement of 2,4-dimethylphenol*

- K-6-P** **M. Egerić**, I. Smičiklas, A. Mraković, M. Jović, M. Šljivić-Ivanović  
*Competitive removal of divalent Pb, Zn, Cu and Sr ions by aragonite seashell waste*
- K-7-P** **M. V. Pergal**, D. M. Kuč, I. D. Kodranov, M. M. Pergal, D. M. Stanković, B. B. Petković, D. D. Manojlović  
*Optimization study of the azamethiphos degradation using chlorine dioxide*
- K-8-P** **M. Čujić**, J. Petrović, Lj. Janković Mandić, M. Đolić, S. Dragović  
*Safecast bGeigie Nano for environmental radiation monitoring: case study for Belgrade, Republic of Serbia*
- K-9-P** **D. Spasojević**, M. Prokopijević, O. Prodanović, K. Radotić, R. Prodanović  
*Reusability of alginate beads with immobilized aminated HRP for phenol removal from water*
- K-10-P** **B. Adnadević**, J. Jovanović, D. Ranković, S. Salvestrini, S. Petković  
*Removal of diuron from waste waters by hydrodynamic cavitation*
- K-11-P** A. Devečerski, **K. Kumrić**, J. Ilić, R. Vujasin, M. Omerašević, L. Slavković-Beškoski, Lj. Matović  
*Using the waste sludge from Ni/Cr plating process as a raw material for inorganic pigments obtaining*
- K-12-P** **K. Kumrić**, R. Vujasin, M. Egerić, M. Omerašević, A. Devečerski, Lj. Matović  
*Preconcentration of targeted pesticides from aqueous solutions by the solid phase extraction on activated carbon derived from coconut shell*
- K-13-P** M. Vukčević, **M. Maletić**, A. Kalijadis, B. Babić, T. Đurkić, M. Laušević  
*Carbon cryogel as an adsorbent for removal of drugs and pesticides from water*
- K-14-P** **A. Čučulović**, R. Čučulović, S. Nestorović, N. Radaković, D. Veselinović  
*Radioactivity in soil and mosses from NP Djerdap in 2017*
- K-15-P** T. Trtić-Petrović, R. Balvanović, **A. Dimitrijević**, O. Culicov, A. Petković  
*Principal component analysis of the selected technology-critical elements in the Danube sediments*
- K-16-P** M. M. Janković, S. Jokanović, N. Sarap, **K. Stevanović**  
*Analysis of tap water for gross alpha/beta activity*
- K-17-P** **M. Radenković**, M. Todorović, J. Marković, A. Onjia  
*Characterization of the fine air particulate matter fraction by proton induced X-ray emission technique (PIXE)*

- K-18-P** **I. Matic Bujagic**, Z. Jaukovic, S. Grujic, M. Laušević  
*Human/animal and plant sterols in suspended matter of municipal wastewater*
- K-19-P** **M. Branković**, D. Anđelković, G. Kocić, T. Anđelković, I. Kostić  
*Investigation on stability of commercial pesticide solution mixture*
- K-20-P** **J. Petrović**, R. Dragović, M. Đorđević, M. Đokić, M. Čujić, Lj. Janković Mandić, S. Dragović  
*Small-scale depth distribution of  $^{40}\text{K}$ ,  $^{226}\text{Ra}$  and  $^{232}\text{Th}$  in uncultivated soils of southeastern Serbia*
- K-21-P** **Lj. Janković Mandić**, M. Đolić, M. Čujić, J. Petrović, A. Onjia, S. Dragović  
*Determination of radionuclides in cigarettes in Serbia and their estimated effective doses due to the smoking*
- K-22-P** **A. Ivanković**, A. Martinović Bevanda, M. Martinović, D. Peteović, M. I. Perić, F. Drmać, S. Talić  
*Possibilities of applying natural extracts as acid-base indicators*

**(L) PHASE BOUNDARIES, COLLOIDS, LIQUID CRYSTALS, SURFACE-ACTIVE SUBSTANCES**

- L-1-P** **A. Dimitrijević**, A. Jocić, N. Zdolšek, T. Trtić-Petrović  
*Tuning the properties of aqueous biphasic system based on block copolymer for the extraction of selected alkaloids*
- L-2-P** A. Jocić, **A. Dimitrijević**, M. Vraneš, S. Gadžurić, T. Trtić-Petrović  
*Protic ionic liquids as tailors of polymer/inorganic salt based aqueous biphasic systems performances*
- L-3-P** **A. Janošević Ležaić**, L. Pavun, D. Đikanović, J. Goronja, A. Malenović, N. Pejić  
*Fluorimetric studies of micellar properties of cetyltrimethylammonium bromide in acetonitrile-water mixture*
- L-4-P** **S. M. Blagojević**, N. Erić, M. Nešović  
*Micellization of mixtures containing sodium-laureth sulphate and polysorbate surfactants*
- L-5-P** **S. M. Blagojević**, N. Erić, M. Nešović, S.N. Blagojević  
*Foamability of mixtures containing anionic and different polysorbate surfactants*

<b>(M)</b>	<b>COMPLEX COMPOUNDS</b>
<b>M-2-P</b>	<b>P. S. Koroteev</b> , N. N. Efimov, A. B. Ilyukhin, V.V. Minin, Zh.V. DobrokhotoV, V.M. Novotortsev <i>New adducts of rare earth 3,5-dinitrobenzoates and aminobenzenes: correlation between charge transfer degree and ionization potentials of the donors</i>
<b>M-3-P</b>	<b>Ž. Mitić</b> , G. M. Nikolić, M. Cakić, S. M. Mitić, G. S. Nikolić, S. Najman, M. Trajanović <i>XRD and SEM-EDX characterization of cobalt(II) complexes with reduced low-molar dextran</i>
<b>M-4-P</b>	<b>B. Dražić</b> , S. B. Tanasković, M. Antonijević Nikolić <i>Preparation and study of two new Cu(II) octaazamacrocyclic complexes with <math>\beta</math>-aryl -<math>\beta</math>-hydroxy propanoic acid</i>
<b>M-5-P</b>	<b>P.S. Koroteev</b> , N. N. Efimov, A. B. Ilyukhin, A. V. Gavrikov, Zh.V. DobrokhotoV, V. M. Novotortsev <i>Tetranuclear Cr-REE-ferrocenecarboxylates with defect-dicubane structure</i>
<b>M-6-P</b>	<b>M. Antonijević-Nikolić</b> , S. Tanasković, B. Dražić, V. Živković-Radovanović <i>Synthesis and characterization of new mixed ligand complexes Cu(II) with macrocyclic and valine/norvaline</i>
<b>(N)</b>	<b>GENERAL PHYSICAL CHEMISTRY</b>
<b>N-1-P</b>	B. Milovanović, M. Milovanović, <b>S. Veličković</b> , F. Veljković, A. Perić-Grujić, S. Jerosimić <i>Ionization energies of <math>K_nI</math> (<math>n = 2, 3</math>) clusters theoretical and experimental evaluation</i>
<b>N-2-P</b>	F. Veljković, B. Vurdelja, B. Rajčić, <b>S. Veličković</b> <i>Experimental evaluation of <math>Li_3Cl_2^+</math>, <math>Li_4Cl_3^+</math> and <math>Li_5Cl_4^+</math> clusters' ionization energies</i>
<b>N-3-P</b>	<b>T. Magsumov</b> , I. Sedov <i>Influence of dimethyl sulfoxide on the unfolding mechanism of hen egg-white lysozyme: a theoretical study</i>
<b>(O)</b>	<b>PHARMACEUTICAL PHYSICAL CHEMISTRY</b>
<b>O-2-P</b>	<b>M. Popović-Nikolić</b> , G. Popović, K. Stojilković, M. Dobrosavljević, D. Agbaba <i>The effect of differently charged micelles on protolytic equilibria of maleic and fumaric acid</i>

- O-3-P** **V. Radulović**, B. Marković, S. Vladimirov, K. Karljiković-Rajić  
*The usage of different polyols as auxiliary reagents for boric acid determination*
- O-4-P** **A. Romanowska**, M. Pieńkos, B. Zadykowicz  
*Synthesis and chemiluminogenic properties of a new chemiluminogen based on acridinium derivatives*
- O-5-P** **B. Koturević**, B. Adnađević, J. Jovanović  
*A kinetic study of the isothermal microwave assisted extraction of hypericin from the flowering tops of hypericum perforatum*
- O-6-P** **A. E. Boldyrev**, A.V. Gerasimov, M. A. Ziganshin, A. A. Osipov  
*Microspherical particles of albumin-based drug for inhalation administration*
- O-7-P** **V. Dobričić**, S. Vladimirov, O. Čudina  
*RP-HPLC evaluation of lipophilicity of 17 $\beta$ -carboxamide glucocorticoids*
- O-8-P** **M.P. Petrović**, T. Šolević-Knudsen, M. Pantić, M. Nikšić, S. Pecić  
*Chemical composition and antimicrobial activity of fennel seeds essential oil*
- O-9-P** **P. M. Petrović**, M. Pantić, M. Nikšić, T. Šolević-Knudsen, S. Pecić, M. Antić  
*Chemical composition and antimicrobial properties of Lavandula officinalis essential oil*
- O-10-P** **D. Jakovljević**, B. Lončarević, G. Gojgić-Cvijović, A. Žeradžanin, N. Lugonja, K. Joksimović, V. P. Beškoski  
*Bioactive pullulan based edible films with medicinal herbal extracts*
- O-11-P** **M. Popović-Nikolić**, G. Popović, K. Berdon  
*The ionization of fluoroquinolones in the presence of differently charged surfactants*
- O-12-P** **M. Radović**, M. Mirković, M. Perić, A. Vukadinović, D. Janković, D. Stanković, Z. Milanović, S. Vranješ-Đurić  
*Phosphates-coated magnetic nanoparticles labeled with yttrium-90 as multifunctional agents for possible use in medicine*
- O-13-P** **M. Mirković**, M. Radović, D. Janković, Z. Milanović, M. Perić, A. Vukadinović, D. Stanković, Đ. Petrović, S. Vranješ-Đurić  
*Two novel bisphosphonate-coated MNPs labeled with <sup>99m</sup>Tc designed as potential theranostic agents*
- O-14-P** **M. Perić**, A. Vukadinović, D. Janković, M. Radović, Z. Milanović, D. Stanković, Đ. Petrović, S. Vranješ-Đurić  
*Spectral analysis of external magnetic field influence on magnetite and cobalt-ferrite nano-particles in ferrofluid*

- O-15-P** **L. Pavun**, S. Micić, A. Janošević Ležaić, K. Kovačević, S. Uskoković- Marković, N. Pejić  
*Spectrophotometric quantification of quercetine using a micelle system*
- O-16-P** **S. M. Blagojević**, M. Minčić, R. Daljević  
*Fluorescence quenching method for determination of bromide in the pharmaceutical preparation*

**(P) EDUCATION, HISTORY**

- P-1-P** **T. Halaši**, S. Kalamković, M. Kalamković  
*Nikolaj Nikolajevich Beketov*
- P-2-P** **T. Halaši**, S. Kalamković, M. Kalamković  
*Hermann von Helmholtz*
- P-3-P** **T. Halaši**, S. Kalamković, M. Kalamković  
*George de Hevesy*

**(Q) FOOD PHYSICAL CHEMISTRY**

- Q-1-P** **S. Ostojić**, D. Micić, S. Zlatanović, B. R. Simonović, Lj. B. Lević  
*Preservation of the native structures of meat proteins after osmotic dehydration and rehydration*
- Q-2-P** **S. Đurović**, D. Micić, B. Simonović, S.N. Blagojević, B. Pavlić, Z. Zeković  
*Chemical profile and thermal behavior of coriander and sage essential oils*
- Q-3-P** T. Anđelković, **I. Kostić**, D. Anđelković, H. Kocić, G. Kocić  
*DEHP extraction from milk samples with different milk fat content*
- Q-4-P** **V. Dragičević**, M. Simić, B. Kresović, M. Brankov  
*Water based free energy as important factor of maize grain filling*
- Q-5-P** **S.Zlatanović**, S. Ostojić, D. Micić, P.Vukosavljević  
*Glass transition of dehydrated apple pomace with different water content*
- Q-6-P** **S. Konstantinović**, Lj. Stanojević, M. Zlatković, D. Stojiljković, J. Zvezdanović  
*Composition of Reishi/Green tea extract determined by UHPLC-DAD-ESI-MS method*
- Q-7-P** **M. Nikolić**, A. Pavlović, S.S. Mitić, S. Tošić, M. Mitić, E. Pecev-Marinković, A. Miletić, J. Mrmošanin  
*Thermal degradation kinetics of total anthocyanins in two types of raspberry jams*

**Q-8-P** **M. Nikolić**, A. Pavlović, M. Mitić, S. S. Mitić, S. Tošić,  
E. Pecev-Marinković, A. Miletić  
*Effect of temperature on stability of individual anthocyanins  
in sugar-low strawberry jam*

**(R) PHYSICO-CHEMICAL ANALYSIS**

**R-1-P** **D. Obradović**, S. Oljačić, M. Popović-Nikolić, G. Popović,  
D. Agbaba

*Investigation of retention behavior of imidazoline receptor  
ligands on mixed-mode HILIC stationary phase*

**R-2-P** **V. Vukojević**, S. Đurđić, S. Jevtić, M. V. Pergal,  
B.B. Petković, D.M. Stanković

*Quantification of organophosphorus pesticide  
azamethiphos using electroanalytical approach*

**R-3-P** B. Rajčić, R. Masnikosa, F. Veljković, A. Rilak,  
**S. Veličković**

*The optimization of instrumental parameters for MALDI-  
TOF MS of Au(III) pincer type complex*

**R-4-P** A. Miletić, **M. Nikolić**, E. Pecev-Marinković, Z. Grahovac,  
A. Pavlović, S. S. Mitić, S. Tošić, I. Rašić Mišić

*Development of kinetic-spectrophotometric method for  
herbicide 4-chloro-2-methylphenoxy acetic  
acid determination*