



# *22<sup>nd</sup> International Symposium on Analytical and Environmental Problems*

*Szeged, Hungary*

*October 10, 2016*

**University of Szeged, Department of Inorganic  
and Analytical Chemistry**



**Final Program**

## **22<sup>nd</sup> International Symposium on Analytical and Environmental Problems**

### **Supporting Organizations**

*University of Szeged, Department of Inorganic and Analytical Chemistry  
Hungarian Academy of Sciences*

### **General information**

*The venue of the Symposium: MTA, SZAB székház, Szeged, Somogyi u. 7.*

*The Symposium features recent findings from leading industrial and academic experts in the field of analytical chemistry and environment related problems.*

*The symposium is bilingual, both English and Hungarian are accepted.*

### **Symposium Chairman:**

*István Ilisz, PhD*

### **Honorary Chairman:**

*Zoltán Galbács, PhD*

honorary professor

University of Szeged, Department of Inorganic and Analytical Chemistry

### **Organizing Committee:**

*István Ilisz, PhD*

associate professor

University of Szeged, Department of Inorganic and Analytical Chemistry

*ilisz@chem.u-szeged.hu*

*Tünde Alapi, PhD*

assistant professor

University of Szeged, Department of Inorganic and Analytical Chemistry

*alapi@chem.u-szeged.hu*

### **TIMETABLE**

**10<sup>00</sup>-10<sup>10</sup>: Opening Ceremony**

**10<sup>10</sup>-11<sup>30</sup>: Oral Presentations: Session I**

**12<sup>00</sup>-14<sup>00</sup>: Poster session I**

**14<sup>00</sup>-15<sup>30</sup>: Oral Presentations: Session II**

**16<sup>00</sup>-18<sup>00</sup>: Poster session II**

**18<sup>00</sup>: Closing Remarks**

## **22<sup>nd</sup> International Symposium on Analytical and Environmental Problems**

### **Oral Presentations: Session I.**

$10^{10}\text{--}10^{20}$

#### **SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF DIMERIC AND POLYMERIC COPPER(II) COMPLEXES WITH SCHIFF BASE AS LIGAND**

Ildiko Bută<sup>1\*</sup>, Diana Aparaschivei<sup>1</sup>, Carmen Crețu<sup>1</sup>, Liliana Cseh<sup>1</sup>, Ramona Tudose<sup>1</sup>, Cătălin Maxim<sup>2</sup>, Marius Andruh<sup>2</sup>, Peter Lönncke<sup>3</sup>, Evamarie Hey-Hawkins<sup>3</sup>, Otilia Costișor<sup>1</sup>

<sup>1</sup>Institute of Chemistry of the Romanian Academy, 24 Mihai Viteazu Bd., 300223-Timisoara, Romania

<sup>2</sup>University of Bucharest, Faculty of Chemistry, Inorganic Chemistry Laboratory, Str. Dumbrava Rosie nr. 23, 020464-Bucharest, Romania

<sup>3</sup>Institute of Inorganic Chemistry, Universität Leipzig Johannisallee 29, 04103 Leipzig, Germany

$10^{20}\text{--}10^{30}$

#### **COMPLEX FORMATION BETWEEN CO-METALLOPORPHYRIN AND SILVER COLLOID IN ACIDIC MEDIA**

Anca Lascu<sup>\*a</sup>, Ionela Creanga<sup>a</sup>, Anca Palade<sup>a</sup>, Mihaela Birdeanu<sup>b</sup>

<sup>a</sup>Institute of Chemistry Timisoara of Romanian Academy, 24 M. Viteazul Ave., 300223-Timisoara, Romania,

<sup>b</sup>National Institute for Research and Development in Electrochemistry and Condensed Matter, 1 Plautius Andronescu Street, 300224 Timisoara, Romania

$10^{30}\text{--}10^{40}$

#### **PHOTODEGRADATION OF DICLOFENAC SODIUM IN AQUEOUS SOLUTION BY ZnO/SnO<sub>2</sub> POWDER MIXTURE CATALYST**

Mladenka Novaković<sup>1</sup>, Veselin Bežanović<sup>1</sup>, Tamara Ivetić<sup>2</sup>, Goran Štrbac<sup>2</sup>, Ivana Mihajlović<sup>1</sup>, Dragana Štrbac<sup>1</sup>

<sup>1</sup>University of Novi Sad, Faculty of Technical Sciences, Department of Environmental Engineering and Occupational Safety and Health, Trg Dositeja Obradovića 6, 21000 Novi Sad, Serbia

<sup>2</sup>University of Novi Sad, Faculty of Science, Department of Physics, Trg Dositeja Obradovića 6, 21000 Novi Sad, Serbia

$10^{40}\text{--}10^{50}$

#### **MONITORING OF CHLORINE BY NEW METHOD BASED ON FOS IN WATER BODIES**

Boris Obrovski<sup>1\*</sup>, Jovan Bajić<sup>2</sup>, Ivana Mihajlović<sup>1</sup>, Mirjana Vojinović Miloradov<sup>1</sup>, Branislav Batinić<sup>2</sup>, Nevena Živančev<sup>1</sup>, Miloš Živanović<sup>2</sup>

<sup>1</sup>University Of Novi Sad, Faculty Of Technical Sciences, Department Of Environmental Engineering, Trg Dositeja Obradovića 6, 21000 Novi Sad, Serbia

<sup>2</sup>University Of Novi Sad, Faculty Of Technical Sciences, Department of Power, Electronic and Telecommunication Engineering, Trg Dositeja Obradovića 6, 21000 Novi Sad, Serbia

$10^{50}\text{--}11^{00}$

#### **NOVEL ASYMMETRIC BENZYLIDENE CYCLOHEXANONE PHOTOCHROMIC COMPOUND AS FOOD DYE WITH ANTIOXIDANT PROPERTIES**

Iulia Păușescu<sup>1,2</sup>, Ana-Maria Pană<sup>1\*</sup>, Valentin Badea<sup>2</sup>, Cătălin Ianăși<sup>1</sup>, Otilia Costișor<sup>1</sup>, Liliana Cseh<sup>1</sup>

<sup>1</sup>Institute of Chemistry Timisoara of Romanian Academy, 24 M. Viteazul Bd., 300223, Timisoara, Romania

<sup>2</sup>University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, 6 V. Parvan Bd., 300223, Timisoara, Romania

$11^{00}\text{--}11^{10}$

#### **MOBILITY OF SELECTED PESTICIDES IN GROUNDWATER**

Nevena Živančev<sup>1\*</sup>, Srdan Kovačević<sup>1</sup>, Boris Obrovski<sup>1</sup>, Mirjana Vojinović Miloradov<sup>1</sup>, Milan Dimkić<sup>1,2</sup>

<sup>1</sup>University of Novi Sad, Faculty of Technical Sciences, Department of Environmental Engineering and Occupational Safety and Health, Trg Dositeja Obradovića 6, Novi Sad, Serbia

<sup>2</sup>Institute for the Development of Water Resources, Jaroslava Černog 80, Pinosava-Belgrade, Serbia

## **22<sup>nd</sup> International Symposium on Analytical and Environmental Problems**

11<sup>10</sup>-11<sup>20</sup>

**ÚJ Cu-KOMPLEXEK SCHIFF-BÁZISOKKAL, ÉS FIZIKAI-KÉMIAI VIZSGÁLATUK**  
ifj. Várhelyi Csaba<sup>1\*</sup>, Nagy Renáta-Ildikó<sup>1</sup>, Pokol György<sup>2</sup>, Korecz László<sup>3</sup>, Goga Firuță<sup>1</sup>, Golban Ligia-Mirabela<sup>1</sup>, Huszthy Péter<sup>2</sup>

<sup>1</sup> „Babeș-Bolyai” Tudományegyetem, Kémia és Vegyészsmérnöki Kar, Kolozsvár

<sup>2</sup> Budapesti Műszaki és Gazdaság tudományi Egyetem, Vegyészsmérnöki és Biomérnöki Kar

<sup>3</sup> MTA-Természettudományi Kutatóközpont, Anyag- és Környezetkémiai Intézet, Budapest

### **Oral Presentations: Session II.**

14<sup>00</sup>-14<sup>10</sup>

**PREFERENCES ABOUT CORPORATE SUSTAINABILITY ACTIONS BY BUSINESS ECONOMICS STUDENTS**

László Berényi

*Institute of Management Science, University of Miskolc, H3515 Miskolc-Egyetemváros, Hungary*

14<sup>10</sup>-14<sup>20</sup>

**APPLICATION RATES OF NEONICOTINOIDS IN SEED COATING AS SOURCES OF ENVIRONMENTAL CONTAMINATION**

Mária Mörtl\*, Béla Darvas, András Székács

*Agro-Environmental Research Institute of National Agricultural Research and Innovation Centre, Herman Ottó u. 15, H-1022 Budapest, Hungary*

14<sup>20</sup>-14<sup>30</sup>

**LIGHT INDUCED SINGLET OXYGEN PRODUCTION AND DETECTION GENERATED BY BACTERIAL REACTION CENTRE-CARBON NANOTUBES COMPOSITES**

Anikó Kinka<sup>1</sup>, Ateeq Ur Rehman<sup>2</sup>, Imre Vass<sup>2</sup>, László Nagy<sup>1</sup>, Kata Hajdu<sup>1</sup>

<sup>1</sup>*Department of Medical Physics and Informatics, University of Szeged, H-6720 Szeged, Rerrich Béla tér 1, Hungary*

<sup>2</sup>*Biological Research Centre of the Hungarian Academy of Sciences, Szeged, H-6726 Szeged, Temesvári krt. 62, Hungary*

14<sup>30</sup>-14<sup>40</sup>

**LIFE CYCLE ASSESSMENT OF DMSO SOLVENT, COMPARING AN OPEN MANUFACTURING SYSTEM WITH A CLOSED ONE**

Anett Zajáros<sup>1\*</sup>, Klára Szita Tóth<sup>2</sup>, Károly Matolcsy<sup>1</sup>, Dániel Horváth<sup>3</sup>

<sup>1</sup>*ÉMI Non-Profit Llc., H-2000 Szentendre, Dózsa György street 26, Hungary*

<sup>2</sup>*Institute of World- and Regional Economics, Miskolc University, H-3515 Miskolc-Egyetemváros, Hungary*

<sup>3</sup>*S-Metalltech 98 Ltd., H-2000 Szentendre, Stéger Ferenc alley 20, Hungary*

14<sup>40</sup>-14<sup>50</sup>

**A PRELIMINARY STUDY ON THE POSSIBILITIES TO INDICATE THE EFFECTS OF URBAN STRESS ON MAPLE TREES**

Dávid Korányi<sup>1,3</sup>, Balázs Palla<sup>1</sup>, Éva Stefanovits-Bányai<sup>2</sup>, Viktor Markó<sup>1</sup>

<sup>1</sup>*Department of Entomology, Szent István University, Faculty of Horticultural Science*

<sup>2</sup>*Department of Applied Chemistry, Szent István University, Faculty of food Science*

<sup>3</sup>*Department of Animal Sciences and Animal Husbandry, University of Pannonia, Georgikon Faculty*

14<sup>50</sup>-15<sup>00</sup>

**TiO<sub>2</sub> COATED MEMBRANE SURFACE CHARACTERISATION WITH CONTACT ANGLE MEASUREMENTS**

Ildikó Kovács, Szabolcs Kertész, Gábor Veréb, Cecilia Hodúr, Zsuzsanna László\*

*Department of Process Engineering, Faculty of Engineering, University of Szeged, H-6725 Szeged, Moszkvai krt. 9., Hungary*

## **22<sup>nd</sup> International Symposium on Analytical and Environmental Problems**

15<sup>00</sup>-15<sup>10</sup>

**PHOTOCATALYTIC OZONATION OF MONURON OVER SUSPENDED AND IMMOBILIZED TiO<sub>2</sub>**  
Gergő Simon<sup>a\*</sup>, Tamás Gyulavári<sup>b</sup>, Klára Hernadi<sup>b</sup>, Zsolt Pap<sup>c,d,e</sup>, Gábor Veréb<sup>f</sup>, Krisztina Schrantz<sup>a</sup>, Tünde Alapi<sup>a</sup>

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<sup>b</sup>Department of Applied and Environmental Chemistry, Institute of Chemistry, University of Szeged, Rerrich Béla tér 1, H-6720 Szeged, Hungary

<sup>c</sup>Faculty of Physics, Babeş-Bolyai University M. Kogălniceanu 1, RO-400084 Cluj-Napoca, Romania

<sup>d</sup>Institute for Interdisciplinary Research on Bio-Nano-Sciences, Treboniu Laurian 42, RO-400271 Cluj-Napoca, Romania

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<sup>f</sup>Department of Process Engineering, Faculty of Engineering, University of Szeged

Moszkvai krt. 9., H-6725 Szeged, Hungary

15<sup>10</sup>-15<sup>20</sup>

**IPARI SZENNYVIZEK KEZELÉSE ÓZONKEZELÉS ÉS MEMBRÁNSZEPARÁCIÓ KOMBINÁLÁSÁVAL**

Zakar Mihály<sup>1</sup>, Veréb Gábor<sup>1</sup>, Hodúr Cecília<sup>1</sup>, Keszthelyi-Szabó Gábor<sup>1</sup>, Lakatos Erika<sup>2</sup>, László Zsuzsanna<sup>1</sup>

<sup>1</sup>Department of Process Engineering, Faculty of Engineering, University of Szeged, H-6724 Szeged, Moszkvai krt. 9.

<sup>2</sup>Institute of Food Sciences, Széchenyi István University, H-9200 Mosonmagyaróvár, Lucsony Srt. 15-17.

15<sup>20</sup>-15<sup>30</sup>

**OLAJSZENNYEZETT VIZEK (FOTO-)FENTON REAKCIÓVAL TÖRTÉNŐ KEZELÉSE ÉS ANNAK MEMBRÁNSZÚRÉSRE GYAKOROLT HATÁSA**

Veréb Gábor, Bozóki Renáta, Kovács Ildikó, Kertész Szabolcs, Hodúr Cecília, László Zsuzsanna

Department of Process Engineering, Faculty of Engineering, University of Szeged, H-6724 Szeged, Moszkvai krt. 9.

**22<sup>nd</sup> International Symposium on Analytical and Environmental Problems**

**Poster Session I. (P01-P77): 12<sup>00</sup>-14<sup>00</sup>**

P01

**CANCER RISK ASSESSMENT OF ANATOMY LABORATORY WORKERS**

**Dragan Adamovic<sup>1\*</sup>, Mirjana Vojinovic- Miloradov<sup>1</sup>, Savka Adamovic<sup>2</sup>, Jelena Radonic<sup>1</sup>, Maja Turk-Sekulic<sup>1</sup>, Sabolc Pap<sup>1</sup>, Boris Obrovski<sup>1</sup>**

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P02

**EVALUATION OF COPPER CONTENT IN SOIL AND ZEA MAYS L. GRAINS, IN A ROMANIAN POLLUTED AREA**

**Simion Alda<sup>1</sup>, Liana Maria Alda<sup>1\*</sup>, Teodor Cristea<sup>1</sup>, Diana Moigradean<sup>1</sup>, Maria Rada<sup>2</sup>, Claudia Sirbulescu<sup>1</sup>, George Andrei Draghici<sup>3</sup>, Luminita Pirvulescu<sup>1</sup>**

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<sup>2</sup>*"Victor Babes" University of Medicine and Pharmacy Timisoara, Piata Eftimie Murgu, 300041 Timisoara, Romania;*

<sup>3</sup>*"Vasile Goldis" Western University of Arad, Str. Liviu Rebreanu, nr. 86, Campusul Universitar "Vasile Goldis" Arad, Romania;*

P03

**THEORETICAL CONSIDERATION REGARDING THE CONTAMINATED SOIL**

**Mihaiela Andoni<sup>1\*</sup>, Georgeta-Maria Simu<sup>1</sup>, Germaine Savoiu-Balint<sup>1</sup>, Anca Dragomirescu<sup>1</sup>, Oana Raluca Pop<sup>1</sup>**

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P04

**NEW CARBOXYSALICYLALDEHYDE SCHIFF BASE LIGAND AND ITS COPPER(II) COMPLEXES**

**Diana Aparaschivei<sup>1,\*</sup>, Ildiko Buta<sup>1</sup>, Ana-Maria Pană<sup>1</sup>, Iulia Păușescu<sup>2</sup>, Valentin Badea<sup>2</sup>, Liliana Cseh<sup>1</sup>, Otilia Costișor<sup>1</sup>**

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P05

**PHYTOCHEMICAL CHARACTERISTICS AND ANTIOXIDANT CAPACITY OF FRUIT EXTRACTS OF DIFFERENT PRUNUS SPECIES**

**Boris Popović<sup>1</sup>, Ana Teresa Serra<sup>2</sup>, Bojana Blagojević<sup>1\*</sup>, Ružica Ždero Pavlović<sup>1</sup>, Dubravka Štajner<sup>1</sup>, Catarina M.M. Duarte<sup>2</sup>**

<sup>1</sup>*Faculty of Agriculture, University of Novi Sad, Trg Dositeja Obradovića 8, 21000 Novi Sad, Serbia*

<sup>2</sup>*Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, Av. da Repubica, EAN, 2780-157 Oeiras, Portugal*

P06

**ACCUMULATION OF HEAVY METALS IN VICIA FABA BEANS**

**Despina – Maria Bordean, Diana Raba\*, Sofia Pintilie, Dan Raican, Andrei Catargiu, Aurica Breica Borozan, Luminita Pirvulescu, Luminita Cojocariu**

*Banat University of Agricultural Sciences and Veterinary Medicine "King Mihai I of Romania" 300645 Timisoara 119, Calea Aradului, Romania;*

## **22<sup>nd</sup> International Symposium on Analytical and Environmental Problems**

P07

### **HYDROTHERMAL CRYSTALLIZATION OF MICROMETRIC HYDROXYAPATITE FOR BIOMEDICAL APPLICATIONS**

**Alexandra Ioana Bucur<sup>\*</sup>, Raul Alin Bucur, Corina Orha, Paula Svera**

*National Institute for Research and Development in Electrochemistry and Condensed Matter, no 144 A. Paunescu Podeanu Street, Timisoara 300569*

P08

### **ENERGY HARVESTING FROM BICYCLE VIBRATIONS USING FLEXIBLE LEAD-FREE PIEZOELECTRIC MATERIALS**

**Bucur Raul Alin<sup>\*</sup>, Farkas Iuliana, Bucur Alexandra Ioana**

*National Institute for Research and Development in Electrochemistry and Condensed Matter, Condensed Matter Department, No. 1 Plautius Andronescu, 300224 Timisoara, Romania*

P09

### **MAIN PHYSICAL-CHEMICAL CHARACTERISTICS OF PRESSED HAM COMMERCIALIZED IN TIMIȘ COUNTY**

**Gabriel Bujanca<sup>1</sup>, Teodor Ioan Trașcă<sup>1</sup>, Adrian Riviș<sup>1</sup>, Alexandru Rinovetz<sup>1</sup>, Corina Miscă<sup>1</sup>, Corina Costescu<sup>1</sup>, Călin Jianu<sup>1</sup>, Ioan David<sup>1</sup>, Ariana Velciov<sup>1</sup>**

<sup>1</sup>*Banat's University of Agricultural Sciences and Veterinary Medicine of Timisoara, Faculty of Food Processing Technology, 300645-Timisoara, Calea Aradului 119, Romania*

P10

### **DEVELOPMENT AND VALIDATION OF NEW MULTIRESIDUE METHOD FOR THE DETERMINATION OF MULTICLASS PESTICIDE RESIDUE USING LC-MS/MS IN ONIONS**

**Bursić Vojislava<sup>1</sup>, Vuković Gorica<sup>2</sup>, Ilin Žarko<sup>1</sup>, Jelena Perenčević<sup>3</sup>, Adamović Boris<sup>1</sup>, Zeremski Tijana<sup>4</sup>, Tanasković Snežana<sup>5</sup>**

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<sup>3</sup>*Agricultural Professional Service Sombor, Staparski put 35, 25000 Sombor*

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<sup>5</sup>*Faculty of Agronomy, University of Kragujevac, Cara Dušana 34, 32000 Čačak, Serbia*

P11

### **EQUILIBRIUM OF PHENOL AND CHROMATE ADSORPTION ON IONIC LIQUID FUNCTIONALIZED Zn-Al LAYERED DOUBLE HYDROXIDE**

**Laura Cocheaci, Lavinia Lupa, Alin Golban, Rodica Pode**

*Faculty of Industrial Chemistry and Environmental Engineering, Politehnica University of Timisoara, 300223 Timisoara, 6 Parvan Blv., Romania*

P12

### **EVALUATION OF PHYSICO-CHEMICAL CHARACTERISTICS FOR SOME PINEAPPLE AND MANGO FRUIT COMPOTE**

**Cozma Antoanelia<sup>1</sup>, Velciov Ariana<sup>1</sup>, Petcu Mihaela<sup>1</sup>, Cretescu Iuliana<sup>2</sup>, Micula Lia<sup>1</sup>, Popescu Sofia<sup>1\*</sup>**

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<sup>2</sup>*Victor Babes University of Medicine and Pharmacy from Timisoara, Romania*

P13

### **$\text{Y}_{0.5}\text{Ca}_{0.5}\text{BaCo}_4\text{O}_7$ PEROVSKITE ELECTRODES WITH CATALYTIC EFFECT FOR METHANOL AND ETHANOL ELECTROOXIDATION IN ALKALINE MEDIA**

**Victor Daniel Craia-Joldes, Mircea Laurențiu Dan, Delia Andrade Duca, Nicolae Vasilcsin**

*University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering, 300223, Parvan 6, Timisoara, Romania*

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P14

### **BEHAVIOR OF BIPYRIDINE DERIVATIVE Cu(I) COMPLEXES IN DONOR SOLVENTS**

Carmen Cretu<sup>1\*</sup>, Diana Aparaschivei<sup>1</sup>, Valentin Badea<sup>2</sup>, Elisabeta I. Szerb<sup>1</sup>, Otilia Costisor<sup>1</sup>

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<sup>2</sup>Faculty of Industrial Chemistry and Environmental Engineering, University Politehnica

Timisoara, 2 Vasile Pârvan Blvd., 300223-Timisoara, Romania

P15

### **A LOW COST LINEAR PARABOLIC CONCENTRATOR SYSTEM– PHOTOREACTOR FOR PHOTOCATALYTIC PROCESSES THAT USES NATURAL SOLAR LIGHT**

Daniel Ursu<sup>1</sup>, Cristina Mosoarca<sup>1\*</sup>, Radu Banica<sup>1</sup>

<sup>1</sup>National Institute for Research and Development in Electrochemistry and Condensed Matter, no 144 A.

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P16

### **PHOTOCATALYTIC EFFICIENCY OF LiInO<sub>2</sub> IN DEGRADATION OF ALPRAZOLAM FROM WASTEWATERS**

Ljubica Dačanin Far<sup>\*1</sup>, Tamara Ivetić<sup>1</sup>, Svetlana Lukić-Petrović<sup>1</sup>, Dragana Šrbac<sup>2</sup>, Nina Finčur<sup>3</sup>, Biljana Abramović<sup>3</sup>

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<sup>3</sup>University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Trg Dositeja Obradovica 3, 21000 Novi Sad, Serbia

P17

### **ELECTROCHEMICAL OXYGEN INTAKE/RELEASE PROCESS OVER YBaCo<sub>2</sub>Fe<sub>2</sub>O<sub>7.5</sub> ELECTRODES IN AQUEOUS SOLUTIONS**

Mircea Laurentiu Dan, Andrea Kellenberger, Nicolae Vaszilcsin

University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering, 300223, Parvan 6, Timisoara, Romania

P18

### **SKELETAL NICKEL BASED 6 LAYERS PLATINUM NANOPARTICLES ELECTRODE WITH CATALYTIC EFFECT FOR ETHANOL ELECTROOXIDATION IN ALKALINE MEDIA**

Mircea Laurențiu Dan, Delia Andrada Duca, Nicolae Vaszilcsin

University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering, 300223, Parvan 6, Timisoara, Romania

P19

### **CHEMISTRY AND PHOTOCHEMISTRY OF NOVEL AROMATIC SPIROKETALS DERIVED FROM 2,6-BIS(5-BROMO-2-HYDROXYBENZYLIDENE) CYCLOHEXANONE**

Livia Deveselleanu-Corîci<sup>1</sup>, Sergiu Șova<sup>2</sup>, Valentin Badea<sup>3</sup>, Otilia Costișor<sup>1</sup>,

Liliana Cseh<sup>1\*</sup>

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<sup>3</sup>Politehnica University of Timisoara, Faculty of Industrial Chemistry and Environment Engineering, 6 Vasile Pârvan Blvd, 300223 Timisoara, Romania

P20

### **COMPARATIVE STUDIES FOR 2-PROPANOL ELECTROOXIDATION ON PLATINUM AND NICKEL ELECTRODES IN ALKALINE MEDIA**

Mircea Laurentiu Dan, Delia Andrada Duca, Nicolae Vaszilcsin, Nicoleta Maria Dragomir

University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering, 300223, Parvan 6, Timisoara, Romania

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P21

**STUDIES ON THE POSSIBILITY OF USING EXPIRED CEFTRIAXONE DRUG AS ADDITIVE IN ACID ELECTROPLATING BATHS**

**Delia-Andrada Duca, Nicolae VASZILCSIN, Mircea Laurențiu Dan**

*University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering, 300223, Părțan 6, Timișoara, România*

P22

**SKELETAL NICKEL ELECTRODE WITH CATALYTIC EFFECT FOR ETHANOL ELECTROOXIDATION IN ALKALINE MEDIA**

**Delia Andrada Duca, Mircea Laurentiu Dan, Nicolae Vaszilcsin**

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**COMPARATIVE ANALYSIS OF CHLOROPHYLL AND CAROTENOID PIGMENTS CONTENT OF ARUGULA (*ERUCA SATIVA*) AND LETTUCE (*LACTUCA SATIVA*) LEAVES**

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**ANODIC OXIDATION OF SULPHITE IONS ON SMOOTH NICKEL BASED 1 LAYER PLATINUM NANOPARTICLES IN ALKALINE SOLUTION**

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**IMPROVED QUALITY FACTOR IN (K,Na)NbO<sub>3</sub> BASED ENVIRONMENT FRIENDLY PIEZOCERAMICS**

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**INFLUENCE OF STRUCTURAL AND TOPOLOGICAL CONNECTIVITY INDICES ON DIELECTRIC PROPERTIES OF BLENDS BASED ON QUATERNIZED POLYSULFONES: THEORETICAL APPROACH**

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**Synergistic effects of structural characteristics of quaternized polysulfone/cellulose acetate phthalate blends on surface properties**

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**PARTIAL LEAST SQUARES MODEL OF MOULTING ACCELERATING COMPOUNDS WITH INSECTICIDE ACTIVITY AGAINST LEPIDOPTERAN SPECIES**

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**STUDY REGARDING COFFEE BREW METAL CONTENT**

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**GERMINATION ENERGY AND SEED GERMINATION - VALID PARAMETERS OF HEAVY METAL PRESENCE IN WATER**

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### **PHOSPHORUS IN A HILL PERMANENT GRASSLAND ECOSYSTEM IN SPRING BY PRINCIPAL COMPONENTS & CLASSIFICATION ANALYSIS**

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**Ilić Renata<sup>1</sup>, Balaž Jelica<sup>1</sup>, Vlajić Slobodan<sup>1</sup>, Jošić Dragana<sup>2</sup>, Ognjanov Vladislav<sup>1</sup>**

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**Roxana Istratic<sup>1\*</sup>, Roxana Băbuță<sup>1</sup>, Adriana Popa<sup>2</sup>, Cornelia Păcurariu<sup>1</sup>,**

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### **THE EFFECT *Origanum vulgare* L. ESSENTIAL OILS ON WEED SEED GERMINATION**

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**Marijana Kragulj Isakovski<sup>1</sup>, Jelena Tričković<sup>1</sup>, Jasmina Agbaba<sup>1</sup>, Srđan Rončević<sup>1</sup>, Aleksandra Tubić<sup>1</sup>, Miljana Prica<sup>2</sup>, Božo Dalmacija<sup>1</sup>**

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### **CORROSION INHIBITION PROCESS OF CARBON STEEL IN HYDROCHLORIC ACID BY CRONOX**

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### **SELF-MEDICATION IN STUDENTS**

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### **THE DOMINANT WEEDS IN INTENSIVE ORCHARDS**

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### **PRELIMINARY *IN SILICO* INVESTIGATION OF COX 2 SELECTIVE INHIBITORS**

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### **ACCUMULATION OF CADMIUM IN THE GRAIN OF DIFFERENT CULTIVARS OF WHEAT**

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### **Cd ACCUMULATION IN *Parmelia spp.* SPECIES**

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### **THE USE FLY ASH IN-SITU PHYTOREMEDIATION OF CRUDE OIL POLLUTED SOILS**

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**Ljiljana Stojanović Bjelić<sup>1\*</sup>, Jelena Slijepčević Babić<sup>1</sup>, Dragana Nešković Markić<sup>2</sup>, Maja Sremački<sup>3</sup>, Jovana Bondžić<sup>4</sup> and Mirjana Vojinović Miloradov<sup>3</sup>**

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### **METEOROLOGICAL AND SYNOPTIC INTERPRETATION AT THE REPRESENTATIVE STATIONS FROM WESTERN ROMANIA DURING THE SUMMER OF 2014**

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### **OVERVIEW OF WASTE GLASS CONTAINER MANAGEMENT IN SERBIA ACCORDING TO THE DECREE ON ESTABLISHMENT OF CONTAINER WASTE REDUCTION PLAN**

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### **CHANGES IN THE QUALITY IN TOMATO FRUIT DUE TO HOME-SCALE FREEZING**

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**Sabolč Pap<sup>1\*</sup>, Srdana Kolaković<sup>1</sup>, Jelena Radonić<sup>1</sup>, Dragan Adamović<sup>1</sup>, Mirjana Vojinović-Miloradov<sup>1</sup>, Miljana Prica<sup>2</sup>, Maja Turk Sekulić<sup>1</sup>**

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**Mihai-Cosmin Pascariu<sup>1,2,3\*</sup>, Madian Rafailea<sup>4</sup>, Mihai Medeleanu<sup>4</sup>, Ramona Curpan<sup>5</sup>, Liliana Păcureanu<sup>5</sup>, Nicolae Dincă<sup>6</sup>, Eugen Șișu<sup>1\*</sup>**

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### **TEM, EDX AND RAMAN STUDY OF NICKEL OXIDE MICRO- AND NANOPHASES OBTAINED BY THERMAL DECOMPOSITION OF AN ORGANOMETALLIC PRECURSOR**

**Mircea Niculescu<sup>1,2\*</sup>, Andrei Racu<sup>3</sup>, Petrica Linu<sup>3</sup>, Bogdan Tarantu<sup>3</sup>, Mihai-Cosmin Pascariu<sup>2,3,4\*</sup>**

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### **ELECTROCHEMICAL DETECTION OF PARAQUAT FROM WATER USING PLATINUM MODIFIED BDD ELECTRODE**

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### **BIOLOGICAL ACTIVITY OF CARUM CARVI ON TRIBOLIUM CONFUSUM (COLEOPTERA, TENEBRIONIDAE) ADULTS**

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### **ANTIOXIDATIVE RESPONSE OF POPLAR TISSUE CULTURE EXPOSED TO PEG 6000**

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### **THE IMMOBILIZATION OF COPPER FROM WASTE PRINTING DEVELOPER SLUDGE**

**Savka Adamović<sup>1</sup>, Miljana Prica<sup>1</sup>, Đurđa Kerkez<sup>2</sup>, Jelena Tričković<sup>2</sup>, Snežana Maletić<sup>2</sup>, Dragan Adamović<sup>1</sup>, Milica Velimirović<sup>3</sup>**

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### **PORTFOLIO OPTIMIZATION IN INVESTMENTS: EMPIRICAL EVIDENCE FROM THE REPUBLIC OF SERBIA**

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### **THE INFLUENCE *Xanthium strumarium* L. EXTRACTS ON MAIZE YIELD**

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### **ZORFLEX ADSORPTION OF ATRAZINE IN DRINKING WATER**

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### **USE OF SOME NATURAL SUPPORTS FOR THE ADSORPTION OF THEOPHYLLINE FROM AQUEOUS SOLUTIONS**

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### **PHOTOCATALYTIC DEGRADATION OF SOME AQUEOUS SUSPENSIONS OF PROPRANOLOL**

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**Maja Sremacki<sup>1\*</sup>, Ivan Španík<sup>2</sup>, Ivana Mihajlović<sup>1</sup>, Maja Turk Sekulić<sup>1</sup>, Jelena Radonić<sup>1</sup>, Mirjana Vojinović Miloradov<sup>1</sup>**

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### **CHEMICAL ANALYSIS AND BIOTEST IN THE ASSESSMENT OF NICOSULFURON SOIL POLLUTION**

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**Cheng Wang<sup>1</sup>, Mojca Bavcon Kralj<sup>2</sup>, Suzana Košenina<sup>2</sup>, Polonca Trebše<sup>2</sup>, Vojislava Burić<sup>3</sup>**

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**Aleksandra Tubić<sup>1\*</sup>, Jasmina Agbaba<sup>1</sup>, Malcolm Watson<sup>1</sup>, Jelena Molnar Jazić<sup>1</sup>, Snežana Maletić<sup>1</sup>, Marijana Kragulj Isakovski<sup>1</sup>, Božo Dalmacija<sup>1</sup>**

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### **PRELIMINARY INVESTIGATION OF COMMON GSK3, PPAR $\gamma$ AND DPP IV CHEMICAL SPACE**

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### **RESVERATROL AS CORROSION INHIBITOR FOR METALS IN WINE AND FOOD INDUSTRIES**

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### **TREATMENT OF BIODEGRADABLE WASTE – CASE OF NOVI SAD REGION**

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### **POLAR PESTICIDE ANALYSES: VALIDATION OF GLYPHOSATE DETERMINATION IN SOIL BY LC-MS/MS**

Vuković Gorica<sup>1</sup>, Bursić Vojislava<sup>2</sup>, Agarski Miroslav<sup>2</sup>, Zeremski Tijana<sup>3</sup>, Rada Đurović-Peđev<sup>4</sup>

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### **THE USE OF CULTIVATED PLANTS IN WATER QUALITY MONITORING**

Antonije Žunić<sup>1</sup>, Slavica Vuković<sup>1</sup>, Sanja Lazić<sup>1</sup>, Maria Fátima Alpendurada<sup>2</sup>, Dragana Šunjka<sup>1</sup>

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### **EFFECT OF SYNTHESIS METHOD ON THE STRUCTURE AND PROPERTIES OF PEROVSKITE NaNbO<sub>3</sub> TYPE NANOMATERIALS**

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### **SUBSTITUTION EFFECT ON THE PHYSICO-CHEMICAL PROPERTIES IN CREDNERITE CuMnO<sub>2</sub> TYPE MATERIALS**

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### **IMPACT OF DOPANTS ON THE ELECTRICAL PROPERTIES IN ABO<sub>3</sub> PEROVSKITE TYPE MATERIALS**

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### **OBTAINING OF FeCO<sub>3</sub> MICROPARTICLES**

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**CORROSION OF CONCRETE**

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**WO<sub>3</sub>-TiO<sub>2</sub>/MWCNT NANOKOMPOZITOK ELŐÁLLÍTÁSA ÉS FOTOKATALITIKUS VIZSGÁLATA**

Bárdos Enikő<sup>1</sup>, Kovács Gábor<sup>1,2,3</sup>, Gyulavári Tamás<sup>1</sup>, Németh Krisztián<sup>1</sup>, Kecsenovity Egon<sup>1</sup>, Berki Péter<sup>1</sup>, Baia Lucian<sup>2,3</sup>, Pap Zsolt<sup>2,3,4</sup>, Hernádi Klára<sup>1</sup>

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**SYNTHESIS AND CHARACTERIZATION OF Pt-CoO JANUS NANOSTRUCTURES**

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Dorina G. Dobó<sup>1,5</sup>, András Sápi<sup>1</sup>, Gyula Halasi<sup>2</sup>, Dániel Sebök<sup>3</sup>, Koppány L. Juhász<sup>1</sup>, Ákos Kukovecz<sup>1,5</sup>, Zoltán Kónya<sup>1,2</sup>

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**EXTRACTION OF ANTIOXIDANT AND POLYPHENOL COMPOUNDS FROM TOKAJI ASZÚ MARC**

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**ADSORPTION OF ASYMMETRIC POLAR COMPOUNDS ON OIL SHALE AND ITS SPECIAL FORM**

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### **THE EFFECT OF DIFFERENT DRYING AND EXTRACTION CONDITIONS ON THE ANTIOXIDANT CONTENT OF ELDERBERRY POMACE**

**Diána Furulyás<sup>1\*</sup>, Lilla Anna Jankó<sup>1</sup>, Mónika Stégerné-Máté<sup>1</sup>, Éva Stefanovits-Bányai<sup>2</sup>**

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### **UTILIZATION OF HYDROGEN PEROXIDE FOR THE PRODUCTION OF VISIBLE LIGHT EXCITABLE ANATASE PHASE TITANIUM DIOXIDES**

**Tamás Gyulavári<sup>1,2\*</sup>, Gábor Veréb<sup>2,3</sup>, Zsolt Pap<sup>2,4,5</sup>, András Dombi<sup>2</sup>, Klára Hernádi<sup>1,2</sup>**

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### **INDICATORS FOR ESTIMATING CORROSION OF CONCRETE AND CONSTRUCTION MATERIALS**

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### **ANALYSIS OF SPELEOTHEM AND ZIRCON SAMPLES BY LA-ICP-MS**

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### **KÜLÖNBÖZŐ POLARITÁSÚ ADALÉKANYAGGAL ELŐÁLLÍTOTT NAGY FOTOKATALITIKUS AKTIVITÁSÚ BIZMUT-VOLFRAMÁT ELŐÁLLÍTÁSA ÉS VIZSGÁLATA**

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### **INVESTIGATION OF Pt/SiO<sub>2</sub> NANOPARTICLES BY SOLUTION AND SINGLE PARTICLE MODE ICP-MS**

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### **PESTICIDE RESIDUES IN ENVIRONMENTAL AND PRODUCE SAMPLES FROM ECOLOGICAL AND CONVENTIONAL PAPRIKA CULTIVATION FIELDS**

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### **ADVANTAGES AND DRAWBACKS OF USING MULTIVARIATE STATISTICAL PROCESS CONTROL IN FOOD INDUSTRY**

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### **SELENITE TREATMENT INDUCES NITRO-OXIDATIVE STRESS AND DECREASES VIABILITY IN INDIAN MUSTARD**

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### **VADON TERMŐ ÁFONYA GENOTÍPUSOK ÉS KERESKEDELMI FORGALOMBAN KAPHATÓ ASZALVÁNYOK ANTIOXIDÁNS KAPACITÁSÁNAK VIZSGÁLATA**

**Molnár Klára<sup>1</sup>, Papp Nóra<sup>1</sup>, György Zsuzsanna<sup>2</sup>, Kőbökuti Zoltán Attila<sup>3</sup>, Stefanovits-Bányai Éva<sup>1\*</sup>**

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### **HIGH-PERFORMANCE LIQUID CHROMATOGRAPHIC STUDY ON THE ENANTIOSEPARATION OF FLUORINE CONTAINING CYCLIC AMINO ACID DERIVATIVES**

**Tímea Orosz<sup>1</sup>, Gyula Lajkó<sup>1,2</sup>, Nóra Grecsó, Lóránd Kiss<sup>2</sup>, Enikő Forró<sup>2</sup>, Ferenc Fülöp<sup>2</sup>, Antal Péter<sup>1</sup> and István Ilisz<sup>1</sup>**

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### **TRANSFORMATION OF THIACLOPRID, A NEW INSECTICIDE, BY GAMMA RADIOLYSIS IN AQUEOUS SOLUTIONS**

**Georgina Rózsa<sup>1,2</sup>, Zsuzsanna Kozmér<sup>1,2</sup>, Tünde Alapi<sup>1</sup>, Krisztina Schrantz<sup>1</sup>, Erzsébet Takács<sup>2</sup>, László Wojnárovits<sup>2</sup>**

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### **FABRICATION OF SIZE-CONTROLLED COPPER NANOPARTICLES WITH DIFFERENT METHODS**

**Kriszta Pencz<sup>1\*</sup>, Koppány L. Juhász<sup>2</sup>, András Sápi<sup>2</sup>, Ákos Kukovecz<sup>2</sup>, Zoltán Kónya<sup>2</sup>**

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### **ROOM TEMPERATURE ETHANOL SENSOR WITH SUB-PPM DETECTION LIMIT: IMPROVING THE OPTICAL RESPONSE BY USING MESOPOROUS SILICA FOAM**

**Dániel Sebők<sup>1,\*</sup>, László Janovák<sup>1</sup>, András Sápi<sup>2</sup>, Dorina G. Dobó<sup>2,3</sup>, Ákos Kukovecz<sup>2,3</sup>, Zoltán Kónya<sup>2,4</sup>, Imre Dékány<sup>1,5</sup>**

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### **LIQUID PHASE HYDROSILYLATION OVER SIZE-CONTROLLED Pt NANOPARTICLES**

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### **SYNTHETISATION AND CHARACTERISATION OF PLATINUM NANOPARTICLES IN A WIDE RANGE OF SIZE**

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### **FLAME ATOMIC ABSORPTION SPECTROSCOPY IN MINERAL ANALYSIS OF BARLEY FROM BANAT AREA**

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### **EFFECT OF VARIOUS RADICAL TRANSFERS AND SCAVENGERS ON THE TRANSFORMATION OF PHENOL OVER UV IRRADIATED TiO<sub>2</sub>**

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### **SYNTHESIS AND CHARACTERIZATION OF TITANIUM DIOXIDE BASED TERNARY NANOCOMPOSITES FOR PHOTOCATALYTIC HYDROGEN PRODUCTION**

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### **KÜLÖNBÖZÖ ALAKÚ NEMESFÉMEKKEL MÓDOSÍTOTT TiO<sub>2</sub> FOTOKATALIZÁTOROK HATÉKONYSÁGA FOTOKATALITIKUS HIDROGÉNFEJLESZTÉSBEN**

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### **KERESKEDELMI TiO<sub>2</sub> FOTOKATALIZÁTOROK, ARANY NANOKETRECEKKEL VALÓ MÓDOSÍTÁSA ÉS AKTIVITÁSÁRA VALÓ HATÁSA**

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### **CHARACTERIZATION OF Mg(Ta<sub>1-x</sub>Nb<sub>x</sub>)<sub>2</sub>O<sub>6</sub> OBTAINED BY THE SOLID-STATE METHOD**

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### **THE MORPHO-STRUCTURAL CHARACTERISTICS OF TiO<sub>2</sub> FILMS FOR SENSORS APPLICATIONS**

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### **Cu<sup>2+</sup> IMPACT ON NITROGEN METABOLISM ENZYMES IN YOUNG PLANTS OF WHEAT AND MAIZE**

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**EFFECTS OF GLYPHOSATE SUBLETHAL AMOUNTS ON PHOTOSYNTHETIC PIGMENTS OF PIGWEED (*AMARANTHUS RETROFLEXUS L.*)**

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**COMPOSITE MATERIALS BASED ON ACTIVATED CARBON AND CARBON NANOFIBER FOR HUMIC ACID REMOVAL**

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**Determination of mice habitats using biodiversity indices**

**Aleksandra Petrović, Branka Ljevnač-Mašić, Ivana Ivanović, Aleksandar Jurišić, Aleksandra Popović, Miloš Petrović, Vojislava Bursić**

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**House dust mite in residential area**

**Aleksandra Petrović, Vojislava Bursić, Ivana Ivanović, Aleksandra Popović, Miloš Petrović, Aleksandar Jurišić, Sonja Gvozdenac**

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**ASSESSMENT OF PROTEIN-GLYCAN INTERACTION BY CHIP-BASED MASS SPECTROMETRY**

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**DEVELOPMENT OF THE ADVANCED MASS SPECTROMETRY FOR MAPPING AND STRUCTURAL ANALYSIS OF HUMAN BRAIN GANGLIOSIDE**

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**POSSIBILITIES IN AIR AND SOUND POLLUTION REDUCTION IN NOVI SAD**

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