

$$S+M(L)=KI^{16}$$

University
of Zagreb
Faculty of
Chemical
Engineering and
Technology

Croatian
Society of
Chemical
Engineers

XVI Meeting of Young Chemical Engineers

$$S+M(L)=KI^{16}$$

19th and 20th
February
2026

 **EuChemS**
European Chemical Society

www.fkit.unizg.hr/smlki

PROGRAM SKUPA

Conference Program

XVI Meeting of Young Chemical Engineers

GOLD SPONSORS



SILVER SPONSORS



BRONZE SPONSORS



SPONSORS



BEST ORAL PRESENTATION AWARD SPONSOR



BEST POSTER PRESENTATION AWARD SPONSOR



DONORS



UNDER THE AUSPICES



REPUBLIKA HRVATSKA
Ministarstvo znanosti,
obrazovanja i mladih



Sveučilište u
Zagrebu



HIS

HRVATSKI INŽENJERSKI SAVEZ
CROATIAN ENGINEERING ASSOCIATION



BOOK OF ABSTRACTS |
KNJIGA SAŽETAKA



CONFERENCE PROGRAM |
PROGRAM SKUPA

MJESTO ODRŽAVANJA | VENUE

Fakultet kemijskog inženjerstva i tehnologije | *Faculty of Chemical Engineering and Technology*

Zagreb, Trg Marka Marulića 19 & 20

Velika dvorana | *Hall A*

Trg Marka Marulića 19

Predavaonica A – podrum | *Lecture room A – basement*

Trg Marka Marulića 19

Multimedijalna dvorana | *Multimedia hall*

Trg Marka Marulića 19

Vijećnica | *Faculty Council Hall*

Trg Marka Marulića 19

Klub nastavnika – podrum | *The Faculty Club – basement*

Trg Marka Marulića 20

PRIJAVE SUDIONIKA | REGISTRATIONS

Ulazni hol u glavnoj zgradi | *Entrance hall in the main building*

Trg Marka Marulića 19

Četvrtak, 19. veljače 2026. |

Thursday, 19th February 2026

08:00 – 17:00

Petak, 20. veljače 2026. |

Friday, 20th February 2026

08:00 – 10:00

OTVARANJE SUSRETA | OPENING CEREMONY

Velika dvorana | *Hall A*

Trg Marka Marulića 19

Četvrtak, 19. veljače 2026. |

Thursday, 19th February 2026

09:00 – 10:00

USMENA IZLAGANJA | ORAL PRESENTATIONS

Velika i Multimedijalna dvorana, prema rasporedu |
Hall A and Multimedia hall, according to the timetable

Trg Marka Marulića 19

Četvrtak, 19. veljače 2026. |

Thursday, 19th February 2026

10:00 – 17:00

Petak, 20. veljače 2026. |

Friday, 20th February 2026

09:00 – 16:45

Oznaka **ENG** označava da je predavanje na engleskom jeziku, a oznaka **CRO** da je na hrvatskom jeziku. |
*The **ENG** label indicates that the lecture is in English language, and the **CRO** label indicates that it is in Croatian language.*

POSTERI | POSTERS

Predavaonica A, podrum, prema rasporedu |
Lecture room A – basement, according to the timetable

Trg Marka Marulića 19

Četvrtak, 19. veljače 2026. |

Thursday, 19th February 2026

09:00 – 18:00

posteri s brojem | *posters with number* **1 – 61**

Petak, 20. veljače 2026. |

Friday, 20th February 2026

09:00 – 15:15

posteri s brojem | *posters with number* **62 – 131**

Postere je potrebno postaviti na panoe na dan definiran rasporedom ujutro (8:00 – 9:00 h) i skinuti na kraju dana. |

Posters should be placed on the boards in the morning (8:00 – 9:00 h) according to the timetable and be removed at the end of the day.

POSTERSKA SEKCIJA | POSTER SESSION

Četvrtak, 19. veljače 2026. | Thursday, 19th February 2026

17:00 – 18:00

Predavaonica A | Lecture room A

Trg Marka Marulića 19

poster s brojem | posters with number 1 – 61

Petak, 20. veljače 2026. | Friday, 20th February 2026

14:15 – 15:15

Predavaonica A | Lecture room A

Trg Marka Marulića 19

poster s brojem | posters with number 62 – 131

Mole se autori da budu pokraj postera za vrijeme posterske sekcije. |

Authors are kindly invited to stand by their posters during poster session.

STANKA ZA KAVU | COFFEE BREAK

Vijećnica | Faculty Council Hall

Trg Marka Marulića 19

ZATVARANJE SUSRETA I DODJELA NAGRADA | CLOSING CEREMONY AND AWARDS

Velika dvorana | Hall A

Trg Marka Marulića 19

Petak, 20. veljače 2026. |

Friday, 20th February 2026

17:00 – 17:30

DOMJENAK | BANQUET

Klub nastavnika – podrum | The Faculty Club – basement

Trg Marka Marulića 20

Petak, 20. veljače 2026. |

Friday, 20th February 2026

17:30 – 00:00

09:00 – 10:00 Otvaranje Susreta | *Opening ceremony*

Velika dvorana | *Hall A*

Trg Marka Marulića 19

PLENARNO PREDAVANJE | *PLENARY LECTURE*

Moderatori | *Chairs:* Anita Šalić, Željka Ujević Andrijić

10:00 – 11:00 Irena Škorić

SYNERGISTIC DESIGN OF RESVERATROL-BASED SMALL-MOLECULE FOR NEUROPROTECTION

ENG/CRO

11:00 – 11:30

STANKA ZA KAVU | *COFFEE BREAK*

POZVANA PREDAVANJA | *INVITED LECTURES*

Moderatori | *Chairs:* Vesna Očelić Bulatović, Anita Šalić

11:30 – 12:00 Jelena Bujan

THE IMPORTANCE OF THERMAL ADAPTATIONS IN A WARMING WORLD

ENG

12:00 – 12:30

Natalia Ivanjko

PRECLINICAL DEVELOPMENT OF OSTEOGROW-C: A NOVEL OSTEOINDUCTIVE DEVICE FOR BONE REGENERATION

ENG

12:30 – 13:00

Marin Kovačić, Stefani Tonković, Ana Lončarić Božić

LIFE CYCLE ASSESSMENT EX CATHEDRA - AVOIDING PITFALLS AND MISCONCEPTIONS

ENG

IZLAGANJA SPONZORA | *SPONSOR PRESENTATIONS*

Moderatori | *Chairs:* Anita Šalić, Zvonimir Katančić

13:00 – 13:15

Ivana Komparić, Mirta Prlić Hadžiselimović, NEUCHEMIE d.o.o.

ULOGA KEMIJSKIH INŽENJERA U NAFTNOJ INDUSTRIJI

CRO

13:15 – 13:25

Roko Blažić, Kelteks d.o.o.

PRIMJENA NEMETALNIH OJAČANJA U GRADITELISTVU – SAME BUT DIFFERENT

CRO

13:25 – 14:00

STANKA ZA KAVU | *COFFEE BREAK*

Biokemijsko inženjerstvo | Biochemical engineering

Moderatori | Chairs: Anita Šalić, Katarina Mužina

14:00 – 14:15	Zrinka Pišonić , Milan Nikolić, Aleksandra Maršavelski <i>COMPUTATIONAL PROFILING OF QUINOLINE-THIAZOLE HYBRID BINDING TO HUMAN SERUM ALBUMIN</i>	ENG
----------------------	---	------------

Ekoinženjerstvo | Environmental engineering

Moderatori | Chairs: Anita Šalić, Katarina Mužina

14:15 – 14:30	Ivana Ćosić , Dario Dabić, Ksenija Kuna, Jadranka Škevin Sović <i>AIR QUALITY: THE IMPORTANCE OF POLLUTANT ANALYSIS AND AIR QUALITY FORECASTING</i>	CRO
----------------------	---	------------

14:30 – 14:45	Dora Ištvančić , Iva Dominović Novković, Irena Ciglencečki <i>THE OCCASION OF HYPOXIA IN THE WATER COLUMN OF ROGOZNICA LAKE-DRAGON'S EYE IN THE AUTUMN OF 2025</i>	CRO
----------------------	--	------------

14:45 – 15:00	Lara Jareš , Dalibor Broznić, Paula Žurga <i>EVALUATION OF QUINALPHOS BIOAVAILABILITY IN SOILS</i>	CRO
----------------------	--	------------

15:00 – 15:30	STANKA ZA KAVU COFFEE BREAK	
----------------------	--------------------------------------	--

Kemijsko inženjerstvo | Chemical Engineering

Moderatori | Chairs: Andreja Žužić, Željka Ujević Andrijić

15:30 – 15:45	Edina Ibrić , Sabina Begić, Vedran Stuhli, Enita Kurtanović, Mugdin Imamović <i>PYROPHYLITE COMPOSITE OBTAINED BY DISPOSING RED MUD AS A RAW MATERIAL FOR THE PRODUCTION OF BUILDING MATERIALS</i>	CRO
----------------------	--	------------

15:45 – 16:00	Jakov-Stjepan Pavelić , Andraž Kocjan, Darko Makovec, Blaž Likožar, Sašo Gyergyek, Miha Grilc <i>ENGINEERING AND APPLICATION OF A CORE-SHELL MAGNETIC NANOCATALYST FOR BIO-BASED COMPOUND HYDROGENATION</i>	CRO
----------------------	---	------------

16:00 – 16:15	Filip Car , Domagoj Vrsaljko, Vesna Tomašić <i>STUDY OF CATALYTIC POTENTIAL OF 3D-PRINTED CERAMIC MONOLITHIC CATALYSTS FOR THE OXIDATION OF VOLATILE ORGANIC COMPOUNDS</i>	CRO
----------------------	--	------------

16:15 – 16:30	Hrvoje Tašner , Grgur Mihalinec, Zoran Mandić <i>DETERMINATION OF THE INFLUENCE OF INDIVIDUAL INGREDIENTS ON THE RHEOLOGICAL PROPERTIES OF SLURRIES FOR THE PRODUCTION OF POSITIVE ELECTRODES FOR LITHIUM ION BATTERIES</i>	CRO
----------------------	---	------------

16:30 – 16:45	Chekwube Ginikanwa Nwodika , Grgur Mihalinec, Zoran Mandić, Andrea Molnar <i>IRON-CATALYZED OXYGEN MIGRATION IN P–O–C CROSSLINKED CARBON: TRANSFORMING HAZELNUT SHELL–DERIVED ACTIVATED CARBON INTO HIERARCHICAL TURBOSTRATIC CARBON NANOSHEETS</i>	ENG
16:45 – 17:00	Anabela Ljubić , Anita Šalić, Irena Škorić <i>MATHEMATICAL MODELING AND OPTIMIZATION OF VILSMEIER FORMYLATION FOR EFFICIENT FLOW PROCESSING</i>	ENG

17:00 – 18:00	POSTERSKA SEKCIJA POSTER SESSION	
Predavaonica A – podrum Lecture room A – basement	Trg Marka Marulića 19	
	posteri s brojem posters with number 1 - 61	

USMENA IZLAGANJA ORAL PRESENTATIONS		
Multimedijalna dvorana Multimedia hall	Trg Marka Marulića 19	

Primijenjena kemija | Applied chemistry

Moderatori | Chairs: Andreja Žužić, Marijan-Pere Marković

14:00 – 14:15	Antonija Karakaš , Davor Margetić <i>MECHANOCHEMISTRY FOR SUSTAINABLE GUANIDINE SYNTHESIS</i>	CRO
14:15 – 14:30	Donna Danijela Dragun , Tihana Mlinarić, Iva Rezić Meštrović, Ernest Meštrović <i>MORIN-CYCLODEXTRIN/PCL NANOFIBER SCAFFOLDS FOR SUSTAINED BONE REGENERATION</i>	ENG
14:30 – 14:45	Đorđe Todorović , Sofija Bekić, Edward Petri, Anđelka Čelić, Milena Rašeta <i>ALDO-KETO REDUCTASE INHIBITORY AND STEROID RECEPTOR-BINDING ACTIVITIES OF POLYPHENOLICS FROM FISTULINA HEPATICA EXTRACTS</i>	ENG
14:45 – 15:00	Josip Lukač , Ivana Nikšić-Franjić, Nikola Topolovčan <i>COMPUTATIONAL DESIGN OF CHIRAL CYCLOPENTADIENYL CATALYSTS WITH TUNABLE STERIC ELEMENTS</i>	CRO

15:00 – 15:30	STANKA ZA KAVU COFFEE BREAK	
---------------	--------------------------------------	--

Razvoj materijala i proizvoda | *Material and product development*

Moderatori | *Chairs:* Vesna Ocelić Bulatović, Zvonimir Katančić

15:30 – 15:45	Leo Mandić , Tea Mihelj Josipović, Ivana Šoljić Jerbić, Fabio Faraguna <i>APPLICATION OF INFRARED SPECTROSCOPY IN DETERMINATION OF PLGA POLYMERS' COMPOSITION</i>	ENG
15:45 – 16:00	Željka Boček , Elizabeta Forjan, Andrej Molnar, Marijan-Pere Marković, Domagoj Vrsaljko, Petar Kassal <i>PRINTING SOLUTIONS FOR SENSING PROBLEMS</i>	ENG
16:00 – 16:15	Luka Dornjak , Anamarija Rogina, Aldo R. Boccaccini <i>DEVELOPMENT OF 3D-PRINTED COMPOSITES BASED ON BIODEGRADABLE POLYMER AND CALCIUM PHOSPHATES</i>	ENG
16:15 – 16:30	Saffana Kouka , Veronika Gajdosova, Beata Strachota, Zdenek Stry, Miroslav Slouf <i>IMPACT OF ACID HYDROLYSIS ON THE STRUCTURE AND PROPERTIES OF THERMOPLASTIC STARCH</i>	ENG
16:30 – 16:45	Veronika Gajdosova , Saffana Kouka, Beata Strachota, Adam Strachota, Zdenek Stry, Radomir Kuzel, Aleksandra Ujcic, Vesna Ocelić Bulatović, Elvira Vidović, Miroslav Slouf <i>INFLUENCE OF STARCH BOTANICAL ORIGIN ON THE PROPERTIES OF THERMOPLASTIC STARCH AND ITS BLENDS</i>	ENG
16:45 – 17:00	Karlo Blažević , Rafael Anelić, Ivana Šoljić Jerbić, Fabio Faraguna <i>THERMAL DEGRADATION KINETICS OF THE PLGA COPOLYMER – EFFECT OF COMPOSITION AND MOLAR MASS</i>	ENG

17:00 – 18:00 POSTERSKA SEKCIJA | *POSTER SESSION*

Predavaonica A – podrum | *Lecture room A – basement*

Trg Marka Marulića 19

poster s brojem | *posters with number* 1 – 61

PLENARNO PREDAVANJE | PLENARY LECTURE

Velika dvorana | Hall A

Trg Marka Marulića 19

Moderatori | Chairs: Anita Šalić, Bruno Zelić

09:00 – 10:00

Neven Duić*THE ROLE OF CHEMICAL ENGINEERS IN THE ENERGY TRANSITION*

ENG

POZVANA PREDAVANJA | INVITED LECTURES

Moderatori | Chairs: Anita Šalić, Bruno Zelić

10:00 – 10:30

Ana Jurinjak Tušek*DATA-DRIVEN MODELING IN BIOCHEMICAL ENGINEERING: FROM BIG DATA TO PREDICTIVE DESIGN*

ENG

10:30 – 11:00

Manuela Panić, Martina Železnjak, Kristina Radošević, Marina Cvjetko Bubalo, Ivana Radojčić Redovniković*FROM RESEARCH TO STARTUP: BUILDING NADES DESIGN FOR A GREENER INDUSTRY*

ENG

11:00 – 11:30

STANKA ZA KAVU | COFFEE BREAK

Moderatori | Chairs: Zvonimir Katančić, Marijan-Pere Marković

11:30 – 12:00

Dijana Vrsaljko*FROM CHEMICAL COMPOSITION TO ELECTRICAL PROPERTIES: AN INTERDISCIPLINARY APPROACH TO MATERIALS IN THE ELECTRICAL INDUSTRY*

CRO

12:00 – 12:30

Ivana Šoić, Sanja Martinez*FROM INNOVATION TO MARKET: OUR JOURNEY TO TECHNOLOGY COMMERCIALIZATION*

ENG

IZLAGANJA SPONZORA | SPONSOR PRESENTATIONS

Moderatori | Chairs: Željka Ujević Andrijić, Anita Šalić

12:30 – 12:40

Karlo Wittine, Selvita d.o.o.*THE ROLE OF A CHEMIST IN EARLY DRUG DISCOVERY*

CRO/ENG

12:40 – 12:50

Martina Podbršček, Chromos boje i lakovi d.d.*OD IDEJE DO VRHUNSKOG PROIZVODA*

CRO

12:50 – 13:00

Šejla Zukić, Sanja Martinović, Oliver Vuco, Igor Drašković, **DRACO d.o.o.***INNOVATIONS AND SUSTAINABILITY IN WATERPROOFING MATERIALS - THE DRACO EXPERIENCE*

CRO

13:00 – 13:10

Tina Podreka, Holcim Croatia d.o.o.*TEŠKA INDUSTRIJA U POKRETU: KAKO IZGLEDA DEKARBONIZACIJA U PRAKSI*

CRO

13:10 – 13:20	Vanja Pajić, DONAU LAB d.o.o. <i>DONAU LAB d.o.o., Ljubljana: SA NAMA OD LABORATORIJA DO PROCESA!</i>	CRO
13:20 – 13:30	Lucija Furjan, Shimadzu d.o.o. <i>SHIMADZU RJEŠENJA ZA NAPREDNU PFAS ANALIZU</i>	CRO
13:30 – 14:15	STANKA ZA KAVU <i>COFFEE BREAK</i>	
14:15 – 15:15	POSTERSKA SEKCIJA <i>POSTER SESSION</i>	
Predavaonica A – podrum <i>Lecture room A – basement</i>		Trg Marka Marulića 19
posteri s brojem <i>posters with number</i> 62 – 131		
USMENA IZLAGANJA <i>ORAL PRESENTATIONS</i>		
Velika dvorana <i>Hall A</i>		Trg Marka Marulića 19
Razvoj materijala i proizvoda <i>Materials and products development</i>		
Moderatori <i>Chairs:</i> Vesna Očelić Bulatović, Marijan-Pere Marković		
15:15 – 15:30	Petra Pongrac, Mia Balog, Fabio Faraguna, Ante Jukić <i>PREPARATION OF POLYSTYRENE-LIGNIN COMPOSITES: EFFECTS ON THERMAL AND MECHANICAL PROPERTIES</i>	CRO
15:30 – 15:45	Davor Gašparić, Vilko Mandić <i>NOVEL APPROACH OF GENERATING MOLYBDENUM OXIDE THIN FILMS VIA SPARK PLASMA ABLATION DEPOSITION</i>	CRO
15:45 – 16:00	Rafael Anelić, Petra Pongrac, Karlo Blažević, Fabio Faraguna, Ivana Šoljić Jerbić <i>PREPARATION AND CHARACTERIZATION OF A SOLID DRUG-POLYMER FORMULATION</i>	CRO
16:00 – 16:15	Lucija Vlahović, Anamarija Rogina <i>POLYSACCHARIDE SCAFFOLDS WITH AN ORIENTED STRUCTURE FOR TENDON REGENERATION</i>	ENG
16:15 – 16:30	Marina Monika Marić, Anamarija Rogina, Aldo R. Boccaccini <i>IMPACT OF BORATE BIOACTIVE GLASS ON THE STRUCTURE AND PROPERTIES OF CHITOSAN-BASED SCAFFOLDS</i>	ENG
16:30 – 16:45	Grgur Mihalinec, Andrej Molnar, Mia Božiković, Nikola Zdolšek, Zoran Mandić <i>CALCIUM-OXYGEN BATTERIES: RISE OF NEXT-GENERATION OF MULTIVALENT ENERGY STORAGE SYSTEM</i>	ENG
16:45 – 17:00	KRATKA STANKA <i>SHORT BREAK</i>	

14:15 – 15:15 POSTERSKA SEKCIJA | POSTER SESSIONPredavaonica A – podrum | *Lecture room A – basement*

Trg Marka Marulića 19

posteri s brojem | *posters with number* 62 – 131**USMENA IZLAGANJA | ORAL PRESENTATIONS**Multimedijalna dvorana | *Multimedia hall*

Trg Marka Marulića 19

Primijenjena kemija | Applied chemistryModeratori | *Chairs:* Andreja Žužić, Katarina Mužina

- | | | |
|----------------------|---|------------|
| 15:15 – 15:30 | Karolina Głowacka , Maciej Mazur, Katarzyna Wiktorska
<i>FROM DEWETTING-INDUCED MORPHOLOGY TO CELL ADHESION: POLYMER SUBSTRATES FOR IN VITRO STUDIES</i> | ENG |
| 15:30 – 15:45 | Antonija Mamić , Ena Kraljić, Iva Kulušić, Paula Šimunić, Kristina Butković, Leentje Persoons, Dirk Daelemans, Marijana Radić Stojković, Marijana Hranjec
<i>SYNTHESIS, INTERACTION WITH CT-DNA AND UV/VIS pH TITRATION OF NEW PYRIDINE DERIVATIVES</i> | ENG |
| 15:45 – 16:00 | Iva Karneluti , Gerhard J. Mohr, Deepak Joshy, Ivana Perković, Ivana Murković Steinberg
<i>COLOURIMETRIC DETECTION OF PHYSIOLOGICALLY RELEVANT BIOMARKERS FOR WEARABLE APPLICATIONS USING COVALENTLY IMMOBILISED AZO DYES ON CELLULOSE</i> | ENG |
| 16:00 – 16:15 | Helena Biljanić , James McFarlane Hoad, Atiđa Selmani, Eva Roblegg, Katarina Marušić
<i>IN VITRO CELL VIABILITY ASSESSMENT OF FATTY ACID-BASED COATINGS ON STAINLESS STEEL FOR BIOMEDICAL APPLICATIONS</i> | ENG |
| 16:15 – 16:30 | Emilija Petrović Hađar , Krunoslav Užarević
<i>STRUCTURALLY EXPANDED MOF-74 DERIVATIVES DERIVED BY THERMO-MECHANOCHEMISTRY</i> | ENG |
| 16:30 – 16:45 | Josipa Sarjanović , Jana Pisk, Višnja Vrdoljak
<i>VANADIUM COMPLEXES FOR SELECTIVE OXIDATION OF SUBSTITUTED BENZYL ALCOHOLS</i> | CRO |

16:45 – 17:00 KRATKA STANKA | SHORT BREAK**ZATVARANJE SUSRETA I DODJELA NAGRADA | CLOSING CEREMONY AND AWARDS**Velika dvorana | *Hall A*

Trg Marka Marulića 19

Petak, 20. veljače 2026. |
*Friday, 20th February 2026***17:00 – 17:30**

DOMJENAK | *BANQUET*

Klub nastavnika – podrum | *The Faculty Club – basement*

Trg Marka Marulića 20

Petak, 20. veljače 2026. |
Friday, 20th February 2026

17:30 – 00:00

POSTERSKA IZLAGANJA
POSTER PRESENTATIONS



Biokemijsko inženjerstvo | *Biochemical engineering*

- 1 Marta Blažek, Karla Kuzman, Petra Popović, Donna Danijela Dragun, Iva Rezić Meštrović, Ernest Meštrović
GREEN ELECTROSPINNING OF BIODEGRADABLE POLYMERS
- 2 Karlo Borović, Mehmet Mervan Çakar, Theofania Andreadaki, Simon Charnock, Zvezdana Findrik Blažević
SCREENING OF PUTATIVE NEURAMINIC ACID SYNTHASE HOMOLOGUE LIBRARY FOR CHEMOENZYMATIC SYNTHESIS OF N-PROPIONYLNEURAMINIC ACID
- 3 Dorotea Buhanec, Dino Skendrović, Ana Vrsalović Presečki
KINETICAL CHARACTERIZATION OF DICLOFENAC DEGRADATION USING THE ENZYME LACCASE
- 4 Anja Damjanović, Marko Božinović, Marina Cvjetko Bubalo, Polona Žnidaršič Plazl
DES-MEDIATED INTENSIFICATION OF Ω -TRANSAMINASE-CATALYZED SYNTHESIS OF FURFURYLAMINE
- 5 Emanuela Erceg, Sandra Jurić
NUCLEOFUGALITIES OF THE TRIPHENYLPHOSPHINE
- 6 Jakov Gugić, Monika Šabić Runjavec, Barbara Bertović, Marija Vuković Domanovac
UNLOCKING THE ROLE OF MICROBIAL ENZYMES IN SUSTAINABLE BIOREMEDIATION
- 7 Annika Hein, Angelina Osipyan, Nikita Pal, Alexander Argyrou, Karl Gruber, Martin Hayes, Sandy Schmidt
EXPLORATION OF NOVEL HYDRAZINE SYNTHETASES FOR THE SYNTHESIS OF NITROGEN-NITROGEN BONDS
- 8 Lenka Jukić, Milica Perović, Marija Lemić, Marija Kostić, Mirjana Antov
PECTINS EXTRACTED FROM FRUIT POMACES AS FUNCTIONAL FOOD INGREDIENTS
- 9 Nikolina Karačić, Iva Klaneček, Ana Pracaić, Dino Skendrović, Ana Vrsalović Presečki
INVESTIGATION OF THE INFLUENCE OF DIFFERENT ACTIVATION AGENTS ON LACCASE IMMOBILIZATION
- 10 Vilim Marijan Boroša, Kristian Koštan, Petra Popović, Renata Vičević, Nera Bebek, Marijan-Pere Marković
FLUID FLOW CHARACTERIZATION IN A 3D-PRINTED MILLIREACTOR WITH IMMOBILIZED GLUCOSE DEHYDROGENASE
- 11 Dora Malešević, Anđela Marković, Iris Frlan, Lara Štorga, Marta Pleše, Donna Danijela Dragun, Iva Rezić Meštrović, Ernest Meštrović
DESIGN AND FABRICATION OF A LUNG-ON-A-CHIP WITH INTEGRATED SENSORS, MEMBRANES AND HYDROGELS
- 12 Lorena Mateša, Martina Sudar, Benjamin Baumert, Uwe T. Bornscheuer, Zvezdana Findrik Blažević
*KINETIC CHARACTERIZATION OF *PestE* ENZYME IN SYNTHESIS OF N-TRANS-FERULOYLTYRAMINE IN WATER-BASED SYSTEM*
- 13 Ana Novosel, Klaudia Mijić, Davor Valinger, Tamara Jurina, Maja Benković, Jasenka Gajdoš Kljusurić, Renata Vičević, Ana Jurinjak Tušek
EVALUATION OF DEEP EUTECTIC SOLVENT-BASED AQUEOUS TWO-PHASE SYSTEMS PERFORMANCE FOR FERULIC ACID EXTRACTION

- 14 **Mirna Sabol, Trpimir Ivšić, Krunoslav Užarević**
MECHANOCHEMICAL NUCLEOSIDE PHOSPHORYLATION
- 15 **Hana Širić, Andrew George Baker, Ronan Daly, Ljiljana Fruk**
SHEAR STRESS IN BLOODSTREAM: A CRITICAL CHALLENGE FOR NANOMEDICINE PERFORMANCE
- 16 **Lan Julij Zdravec, Simon Schröder, Angelina Osipyan, Lindelo Mguni, Sandy Schmidt, Dirk Tischler, Zvezdana Findrik Blažević**
DESIGN OF AN ENZYMATIC CASCADE FOR THE BIOSYNTHESIS OF L-PIPERAZIC ACID
- 17 **Katarina Žarko, Tara Budimac, Aleksandra Ranitović, Olja Šovljanski, Dragoljub Cvetković, Ana Tomić, Teodora Marić, Zita Šereš**
ADDITION OF ENCAPSULATED LACTOBACILLUS HILGARDII IN PEA PROTEIN FOR OBTAINING KOMBUCHA BEVERAGE WITH PROBIOTIC PROPERTIES
- 18 **Martina Železnjak, Matija Cepanec, Kristina Radošević, Nikolina Mustač Čukelj, Marina Cvjetko Bubalo, Marko Rogošić, Ivana Radojčić Redovniković**
RHEOLOGICAL CHARACTERISATION OF EUTECTOGELS BASED ON OSMOLITES FOR PROTEIN STABILISATION

Ekoinženjerstvo | Environmental engineering

- 19 **Viktoria Bačić, Lucija Kokorić, Lara Komšić, Tina Katalinić, Anđela Skelin, Dora Bramberger, Karlo Grgurević, Laura Jaklenec, Vesna Očelić Bulatović, Marinko Markić, Stela Jokić, Krunoslav Aladić, Klara Opačak, Jasmina Ranilović, Dajana Kučić Grgić**
VALORIZATION OF AGRO-INDUSTRIAL WASTE FOR PHB BIOPOLYMER PRODUCTION USING ACID HYDROLYSIS AND SUBMERGED FERMENTATION
- 20 **Nera Bebek, Sandra Babić, Dario Dabić**
DEVELOPMENT OF AN ANALYTICAL METHOD FOR THE DETERMINATION OF CARCINOGENIC AND MUTAGENIC POLYCYCLIC AROMATIC HYDROCARBONS IN PM₁₀ PARTICLES
- 21 **Ana Coban, Marta Jerneić, Mirela Volf, Ana Boltek, Monika Šabić Runjavac, Marija Vuković Domanovac**
HIGH-EFFICIENCY BIODEGRADATION OF LEACHATE BY ACTIVATED SLUDGE CONSORTIA
- 22 **Ivana Čolo, Kristina Tolić Čop, Dragana Mutavdžić Pavlović**
MOLECULARLY IMPRINTED TiO₂ BASED PHOTOCATALYST FOR TORASEMIDE REMOVAL FROM WATER
- 23 **Mona Gašparac, Dora Bramberger, Dajana Kučić Grgić**
DETERMINATION OF ANTIMICROBIAL ACTIVITY OF ADDITIVES
- 24 **Anastasija Garić, Katarina Hainz, Szabolcs Bognár, Daniela Šojić Merkulov**
GREEN SYNTHESIS OF ZnO NANOPARTICLES USING GRAPE POMACE EXTRACT AND THEIR APPLICATION IN THE PHOTOCATALYTIC DEGRADATION OF METFORMIN
- 25 **Karla Jagar, Korina Divjak, Anica Pavlinović, Iva Ćurić, Davor Dolar**
INFLUENCE OF PRETREATMENT ON REVERSE OSMOSIS MEMBRANE FLUX DURING TEXTILE WASTEWATER TREATMENT

- 26 Laura Jaklenec, Sabina Fućak, Dora Bramberger, Karlo Grgurević, Matija Cvetnić, Marinko Markić, Vesna Očelić Bulatović, Šime Ukić, Stela Jokić, Krunoslav Aladić, Klara Opačak, Jasmina Ranilović, Dajana Kučić Grgić
INTEGRATED ULTRASONIC AND ENZYMATIC PRETREATMENT OF AGROINDUSTRIAL WASTE FROM PLUMS FOR THE BIOSYNTHESIS OF POLYHYDROXYALKANOATES USING SOLID STATE FERMENTATION
- 27 Iva Katanec, Matea Galović, Nela Jakešević, Dora Bramberger, Karlo Grgurević, Laura Jaklenec, Marinko Markić, Stela Jokić, Krunoslav Aladić, Klara Opačak, Jasmina Ranilović, Dajana Kučić Grgić
VALORIZATION OF PLUM WASTE WITH THE AIM OF OBTAINING POLYHYDROXYALKANOATES BY SUBMERGED FERMENTATION
- 28 Petra Kovač, Andrijana Vuković, Monika Šabić Runjavec, Marija Vuković Domanovac
CHARACTERISATION OF BREWER'S SPENT GRAIN AND SPENT COFFEE GROUNDS FOR SUSTAINABLE BIOPROCESS SYSTEMS
- 29 Klara Krajnović, Stela Relota, Tomislav Domanovac, Monika Šabić Runjavec, Marija Vuković Domanovac
WASTEWATER TREATMENT THROUGH MICROBIAL BIOSORPTION
- 30 Dora Lastovčić, Ivona Zirn, Tijana Jezerčić, Luka Večenaj, Viktorija Martinjak, Matija Cvetnić, Marinko Markić, Tomislav Bolanča, Dajana Kučić Grgić, Šime Ukić
OPTIMISATION OF THE BIODEGRADATION OF THE ANTIVIRAL DRUG LOPINAVIR USING ACTIVATED SLUDGE
- 31 Dora Martinuš, Barbara Jezerčić, Bruna Babić Visković, Anica Pavlinović, Danijela Ašperger, Davor Dolar
*DETERMINATION OF THE ECOTOXICITY OF CHEMICAL WARFARE AGENT SIMULANTS BY *Vibrio fischeri**
- 32 Jan Meixner, Jana Ropac, Jakov Gugić, Andrea Špoljarić, Elvira Vidović
DETERMINATION OF A SUITABLE DESORBENT FOR PLA/nZVI COMPOSITES AFTER REMOVAL OF Cr(VI) AND As(V) FROM WATER
- 33 Luka Obuljen, Kristina Tolić Čop, Dragana Mutavdžić Pavlović
MOLECULARLY IMPRINTED POLYMER FOR SORPTION OF VENLAFAXINE - KINETIC STUDY
- 34 Viola Pagliani, Elena Arnau-López, Noelia Campillo-Tamarit, Manuel Muñoz-Colmenares, Juan Miguel Soria, Juan Víctor Molner
REMOTE SENSING MONITORING OF THE ITALIAN MEDITERRANEAN COASTAL LAGOONS REVEALING POOR ECOLOGICAL CONDITIONS
- 35 Carla Alexandra Qvarnström, Nera Bebek, Renata Vičević
STABILITY OF GLUCOSE DEHYDROGENASE AND HYDROGENASE IN DEEP EUTECTIC SOLVENTS
- 36 Sandra Romac, Jelena Papan Djaniš, Boštjan Žener, Andraž Šuligoj, Ida Kraševac, Suresh Kumar Pandey, Urška Lavrenčič Štangar, Hrvoje Kušić
In₂O₃ COMPOSITES WITH CARBON-BASED NANOMATERIALS FOR ENHANCED PHOTOCATALYTIC PFAS DEGRADATION
- 37 Klara Štingl, Monika Šabić Runjavec, Martina Sudar, Marija Vuković Domanovac
LYOPROTECTANTS FOR IMPROVED FREEZE-DRYING SURVIVAL OF ENVIRONMENTAL BACTERIA ISOLATES

- 38 Stefani Tonković, Nikola Turčić, Marin Kovačić, Ana Lončarić Božić
REMOVAL OF MICROPLASTIC PARTICLES OF PET AND PP THROUGH COAGULATION USING FERRATE(VI) IN AQUEOUS MEDIA

Kemijsko inženjerstvo | Chemical engineering

- 39 Joško Barbarić, Bruna Krneta, Monika Mihaljević, Anabela Ljubić, Ivana Šoljić Jerbić, Marjana Durrigl, Rafael Anelić, Leo Mandić, Fabio Faraguna
DEVELOPMENT OF A BIODEGRADABLE PLGA-BASED INJECTABLE FORMULATION FOR SUSTAINED RELEASE OF INDOMETHACIN: FORMULATION OPTIMIZATION AND IN VITRO RELEASE TESTING
- 40 Iva Blažević, Ana Ančić, Karla Aleksić, Mia Markulak, Nika Arambašić, Dora Paponja, Aleksandra Sander
DEVELOPMENT OF FUNCTIONAL DIETARY SUPPLEMENTS BASED ON FERMENTED RED CABBAGE JUICE
- 41 Mia Božiković, Nikola Zdolšek, Zoran Mandić
INFLUENCE OF IONIC LIQUIDS ON Ca^{2+} - SOLVENT INTERACTIONS FOR APPLICATION IN CALCIUM OXYGEN BATTERY SYSTEMS
- 42 Lana Brkić, Lea Hrženjak, Nikolina Miočić, Filip Brleković, Stanislav Kurajica
PREPARATION OF SILVER MOLYBDATE-BASED HETERO-COMPOUNDS
- 43 Lorena Brozović, Bernarda Bužak, Ela Štulić Ceronja, Nera Bebek, Renata Vičević
DEVELOPMENT OF A MILLISYSTEM FOR CONTINUOUS EXTRACTION OF GLUCOSE DEHYDROGENASE
- 44 Matija Cepanec, Viktor Gaal, Barbara Vukas, Laura Šugić, Nino Drpić, Marko Rogošić
DETERMINATION OF SOLID-LIQUID EQUILIBRIUM IN HYDROPHOBIC EUTECTIC SOLVENT SYSTEMS BY DIFFERENTIAL SCANNING CALORIMETRY
- 45 Matea Čulina, Marija Čosić, Željko Penga, Antonija Čelan
CFD MODELING OF A DOUBLE-PIPE HEAT EXCHANGER
- 46 Tamara Đolonga, Marija Čosić, Antonija Čelan
INFLUENCE OF ULTRASOUND IRRADIATION PULSE ON CRYSTAL GROWTH IN SONOCRYSTALLIZATION OF POTASSIUM SULPHATE
- 47 Marija Eremut Petrušić, Vida Petrušić, Ivana Tomaz
COMPARISON AND OPTIMIZATION OF TRIS-PHENOL AND TCA-ACETONE METHODS FOR PROTEIN ISOLATION FROM GRAPEVINE LEAVES USING A BOX-BEHNKEN DESIGN
- 48 Olga Jerković Perić, Tin Klačić, Anže Abram, Klemen Bohinc, Davor Kovačević
PROPERTIES OF CHITOSAN/CARBOXYMETHYL CELLULOSE MULTILAYER PREPARED ON MODEL INTRAOCULAR LENSES MADE OF POLY(METHYL METHACRYLATE)
- 49 Marija Kubasek, Renata Vičević, Ana Jurinjak Tušek
RAPID AND NON-DESTRUCTIVE MONITORING OF GDH ACTIVITY DEEP EUTECTIC SOLVENTS USING NIR SPECTROSCOPY AND ARTIFICIAL NEURAL NETWORKS
- 50 Barbara Medvedec, Dunja Šamec
ETHANOL-WATER SOLVENT COMPOSITION EFFECTS ON BIFLAVONOID EXTRACTION FROM DIFFERENT GINKGO TISSUES
- 51 Erik Mihelič, Marjana Simonič, Olivija Plohl
CIRCULAR DRYING AND PYROLYSIS CONCEPT FOR SEWAGE SLUDGE USING RECYCLED BIOCHAR

- 52 Dajana Mikić, Petra Batinić, Helena Otmačić Ćurković
CORROSION PROTECTION OF CARBON STEEL BY BENZOATES
- 53 Andrej Molnar, Mia Božiković, Nikola Zdolšek, Grgur Mihalinec, Zoran Mandić
DESIGN AND CONSTRUCTION OF HIGH -PERFORMANCE CALCIUM-OXYGEN BATTERIES
- 54 Iva Movre Šapić, Vesna Ocelić Bulatović, Andrej Vidak
ENHANCING CHEMICAL LABORATORY SAFETY THROUGH AUGMENTED REALITY APPLICATION
- 55 Dragana Pacina, Lara Krmelić, Iva Zokić, Matija Ceganec, Marko Rogošić, Jasna Prlić Kardum
EVALUATING THE EFFECT OF BIOACTIVE COMPONENT ADDITION ON THE PROPERTIES OF A NEW ACTIVE INGREDIENT FORMULATION
- 56 Suresh Kumar Pandey, Sandra Romac, Josipa Papac Zjačić, Hrvoje Kušić, Marin Kovačić, Marijana Kraljić Roković, Ana Lončarić Božić, Boštjan Žener, Boštjan Genorio, Urška Lavrenčič Štangar
BAND ALIGNMENT AND CHARGE TRANSFER IN $g\text{-C}_3\text{N}_4/\text{In}_2\text{O}_3$ HETEROJUNCTIONS FOR EFFICIENT SOLAR-DRIVEN POLLUTANT DEGRADATION
- 57 Žana Piljić, Donatella Pincin, Stefani Tonković, Anamarija Pulitika, Marin Kovačić
MODELING OF BIOMASS PYROLYTIC REACTIONS IN THE GAS PHASE WITH H_2 NONTHERMAL PLASMA
- 58 Karla Radak, Dora Felber, Antonija Jelavić, Elizabeta Forjan, Domagoj Vrsaljko
PREPARATION OF pH-SENSITIVE FILMS BY IMMOBILIZATION OF AN INDICATOR MIXTURE
- 59 Lina Šepić, Grgur Mihalinec, Zoran Mandić
OPTIMIZATION OF THE NEGATIVE ELECTRODE FORMATION IN LI-ION BATTERIES
- 60 Ramazan Vakili Gonbadi, Reza Sohrabie
TAILORING THE MICROSTRUCTURE OF METAL–ORGANIC FRAMEWORKS FOR ENHANCED GAS SEPARATION AND STORAGE
- 61 Filip Vretenar, Hariett Hartmann, Željka Ujević Andrijić
IN SILICO STUDY OF COCRYSTAL FORMATION IN PHARMACEUTICAL DEVELOPMENT

Primijenjena kemija | *Applied chemistry*

- 62 **Jakov Babić, Jelena Kojčinović, Stjepan Šarić, Dalibor Tatar, Igor Djerdj**
DYE DEGRADATION OVER CERIA-BASED HIGH-ENTROPY OXIDES
- 63 **Paulina Bajek, Daniela Amidžić Klarić, Petra Turčić, Jelena Kovačić, Petra Bajt, Nikša Turk, Željko Krznarić, Ana Mornar**
FROM SYSTEMIC TO TOPICAL: DEVELOPING A RELIABLE HPLC METHOD FOR QUANTIFYING MINOXIDIL AND RITLECITINIB IN INNOVATIVE PHARMACEUTICAL PRODUCTS
- 64 **Mihael Belas, Ivana Kekez, Darko Vušak, Biserka Prugovečki**
INTERACTION OF TERNARY COORDINATION COMPOUNDS OF COPPER(II) WITH DNA
- 65 **Eva Botica, Ivana Kekez, Darko Vušak, Biserka Prugovečki**
SYNTHESIS AND CHARACTERIZATION OF A TERNARY COPPER(II) COMPLEX WITH 1,10-PHENANTHROLINE AND L-PHENYLALANINE AND INVESTIGATION OF ITS INTERACTION WITH DNA
- 66 **Roko Budiselić, Darko Vušak, Biserka Prugovečki**
SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF A NOVEL COPPER(II) METAL-ORGANIC FRAMEWORK WITH L-ASPARAGINE AND 4,4'-BIPYRIDINE
- 67 **Vanesa Bursać, Patrik Humski, Anja Rakas, Tatjana Gazivoda Kraljević**
SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF NOVEL BENZAZOLE-BASED 1,2,3-TRIAZOLE AND HYDRAZONE DERIVATIVES
- 68 **Mia Bušljeta, Bernard Denegri, Mirela Matić**
SOLVOLYTIC REACTIVITY OF PHENYLSULPHINATE IN MIXTURES OF WATER AND APROTIC SOLVENTS
- 69 **Valerija Čolig, Vilma Lovrinčević, Dragana Vuk, Ines Despotović**
ASSESSMENT OF THE ANTIMICROBIAL ACTIVITY OF BISINDOLE SYSTEMS USING COMPUTATIONAL MOLECULAR DOCKING METHODS
- 70 **Paula Ćurić, Vilma Lovrinčević, Dragana Vuk, Monika Šabić Runjavec, Marija Vuković Domanovac, Ines Despotović**
SYNTHESIS AND BIOLOGICAL ACTIVITY OF NOVEL BISINDOLE SYSTEMS
- 71 **Marija Ćuzović, Vitomir Vušak, Tamara Grgić, Ivana Šoljić Jerbić, Fabio Faraguna**
INVESTIGATION OF INDOMETHACIN CHEMICAL STABILITY: IDENTIFICATION OF DEGRADATION PRODUCTS USING LC/MS AND MS/MS TECHNIQUE
- 72 **Lucija Dujmušić, Brigita Kuštan Bočkaj, Slavica Krželj, Iva Marković, Lana Munivrana, Lovorka Žagar, Lidija Barišić, Monika Kovačević**
CONCENTRATION- AND TEMPERATURE-DEPENDENT INFRARED SPECTROSCOPY IN CONFORMATIONAL ANALYSIS OF FERROCENE PEPTIDOMIMETICS
- 73 **Neda Dupljanin, Andrea Nikolić**
SYNTHESIS AND IN SILICO BIOAVAILABILITY ASSESSMENT OF NOVEL STEROIDAL HYDRAZONE DERIVATIVES

- 74 Ema Galović, Lana Petričević, Leon Sačer, Silvana Raić-Malić
DESIGN AND SYNTHESIS OF ISOXAZOLE-BRIDGED PYRIDINE AND QUINOLINE CONJUGATES AND THEIR METAL COMPLEXES WITH POTENTIAL ANTITRYPANOSOMAL ACTIVITY
- 75 Patricija Grizelj, Maja Skrenković, Milena Mlakić, Irena Škorić
NEW POTENTIAL BIOLOGICALLY ACTIVE RESVERATROL-BENZIMIDAZOLE AND RESVERATROL-OXAZOLE HYBRIDS
- 76 Emir Horozić, Snježana Marić, Gordana Tasić, Žarko Gagić, Demir Bjelošević, Jasmin Suljagić, Vladimir Savić
EVALUATION OF ANTIOXIDANT AND ANTIBACTERIAL ACTIVITY OF IMINES BASED ON SUBSTITUTED BENZALDEHYDES AND THIOSEMICARBAZIDES
- 77 Sonia Hribar, Alma Ramić, Ines Primožič
SYNTHESIS AND CHARACTERIZATION OF PHENYLALANINE-BASED PEPTIDOMIMETICS
- 78 Rufija Idrizovska, Valentin Mirceski, Monika Organdjieva
MECHANISTIC AND KINETIC INVESTIGATION OF DOPAMINE- GLUTATHIONE INTERACTION USING AN EC' ELECTROCHEMICAL MODEL
- 79 Marijana Jozipović, Karla Bošnjak, Martina Piškor Benković, John M. Kelly, Silvana Raić-Malić
SYNTHESIS, STRUCTURAL CHARACTERIZATION AND ANTITRYPANOSOMAL ACTIVITY OF BENZIMIDAZOLE DERIVATIVES
- 80 Katarina Kordej, Vilma Lovrinčević, Dragana Vuk, Monika Šabić Runjevac, Marija Vuković Domanovac, Ines Despotović
INDENE DERIVATIVES AS POTENTIAL CANDIDATES FOR ANTIMICROBIAL DRUGS
- 81 Tea Kozić, Anamarija Stanković, Nikolina Filipović, Tomislav Balić
SYNTHESIS AND SPECTROSCOPIC CHARACTERIZATION OF COPPER(II) COMPLEXES WITH CHROMONE-2-CARBOXYLIC ACID
- 82 Emina Kovačević, Aida Gogić, Aldijana Mustafić, Halid Junuzović, Sabina Begić, Husejin Keran, Amra Selimović, Indira Šestan, Melisa Ahmetović, Edina Ibrić
VALORIZATION OF EGGSHELLS INTO CaO FOR THE REMOVAL OF LEAD IONS FROM AQUEOUS SOLUTIONS: INVESTIGATION OF CHEMICAL PRECIPITATION CONDITIONS
- 83 Lucija Kutleša, Andreja Jurič, Blanka Tariba Lovaković
DEVELOPMENT AND VALIDATION OF AN UHPLC-MS/MS METHOD FOR THE DETERMINATION OF PHTHALATE ESTER METABOLITES IN HUMAN URINE SAMPLES
- 84 Tino Lonza, Katarina Lisac, Ivana Brekalo
MECHANOCHEMICAL SYNTHESIS OF ZEOLITIC IMIDAZOLATE FRAMEWORKS USING STRUCTURE-DIRECTING LIQUID ADDITIVES AND THEIR ACTIVATION
- 85 Maja Mandić, Viktorija Maričić, Ivana Sokol, Tatjana Gazivoda Kraljević
SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF NOVEL ACYLHYDRAZONE DERIVATIVES OF BENZOTHAZOLE AND THEIR RHENIUM(I) CARBONYL COMPLEXES
- 86 Ivana Mandir, Luka Večenaj, Dora Lastovčić, Viktorija Martinjak, Martina Miloloža Nikolić, Lidija Furač, Marinko Markić, Dajana Kučić Grgić, Matija Cvetnić, Tomislav Bolanča, Šime Ukić
DEGRADATION OF FAVIPIRAVIR USING ADVANCED OXIDATION PROCESSES

- 87 Lucija Marušić, Toni Divjak, Ines Primožič
MICROWAVE-ASSISTED SYNTHESIS OF QUATERNARY N-NICOTINOYLAMINO ACETAMIDE DERIVATIVES
- 88 Petra Mašina, Paulina Bajek, Jelena Kovačić, Daniela Amidžić Klarić, Petra Bajt, Nikša Turk, Željko Krznarić, Ana Mornar
BIOMIMETIC CHROMATOGRAPHIC INSIGHTS INTO THE PLASMA PROTEIN BINDING OF ETRASIMOD AND RITLECITINIB
- 89 Petra Matić, Vanessa Sačić, Lidija Jakobek
SYRINGIC ACID ADSORPTION ONTO β -GLUCAN: REACTION KINETICS AND ANTIOXIDANT ACTIVITY
- 90 Vito Mijailović, Tin Klačić, Petra Peharec Štefanić, Branka Njegić Džakula, Zlatko Brkljača, Tomislav Portada, Tajana Begović
ADSORPTION PROPERTIES OF POLY(4-VINYLPYRIDINE) DERIVATIVES ADSORBED ON THE SURFACE OF QUARTZ NANOPATES
- 91 Dominik Milanović-Litre, Leon Rakić, Petra Kovačec, Tatjana Gazivoda Kraljević
SYNTHESIS OF NEW 1,2,3-TRIAZOLE DERIVATIVES OF COUMARIN BY CONVENTIONAL AND SUSTAINABLE MECHANOCHEMICAL SYNTHESIS
- 92 Sara Milić, Milena Mlakić, Irena Škorić
MORPHOLINE AND PYRROLIDINE CARBAMATES IN THE FIGHT AGAINST NEURODEGENERATIVE DISORDERS
- 93 Kristian Morić-Španić, Zvonimir Mlinarić, Lu Turković, Tajana Silovski, Biljana Nigović, Miranda Sertić
GREENNESS AND PRACTICALITY ASSESSMENT OF A NEW CAPILLARY ELECTROPHORESIS METHOD FOR THE DETERMINATION OF TALAZOPARIB IN A DOSAGE FORM AND COMPARISON WITH HPLC METHOD
- 94 Petra Mustapić, Bruna Babić Visković, Anica Pavlinović, Davor Dolar, Danijela Ašperger
THE INFLUENCE OF MEMBRANE PROCESSES ON REDUCING THE ECOTOXICITY OF XENOBIOTICS
- 95 Ema Novak, Darko Vušak, Biserka Prugovečki
MULTICOMPONENT 1D COPPER(II) COORDINATION POLYMER WITH SARCOSINE AND BIPYRIDINE DERIVATIVE: STRUCTURAL, THERMAL AND SPECTROSCOPIC ANALYSIS
- 96 Ivana Olujić, Vilma Lovrinčević, Dragana Vuk, Nikola Basarić
SYNTHESIS AND PHOTOCHEMISTRY OF CYANO-AMINOBIIPHENYL PHOTOCAGES
- 97 Monika Organdijeva, Valentin Mirceski, Rufija Idrizovska
VOLTAMMETRY OF CAFFEINE
- 98 Ana-Marija Palčok, Petra Bajt, Jelena Kovačić, Ilija Klarić, Petra Turčić, Ana Mornar Turk, Daniela Amidžić Klarić
SPECTROPHOTOMETRIC ANALYSIS OF DEUCRAVACITINIB CONTENT IN TABLETS: A VALIDATED AND REPRODUCIBLE METHOD FOR ROUTINE QUALITY CONTROL
- 99 Jelena Pavić, Željka Car
MICROWAVE-ASSISTED SOLUTION-PHASE SYNTHESIS OF DESMURAMYL PEPTIDES

- 100 Dunja Pavlović, Luka Večenaj, Dora Lastovčić, Viktorija Martinjak, Martina Miloloža Nikolić, Lidija Furač, Marinko Markić, Dajana Kučić Grgić, Matija Cvetnić, Tomislav Bolanča, Šime Ukić
DEGRADATION OF OSELTAMIVIR BY ADVANCED OXIDATION PROCESSES
- 101 Iva Pinušić, Ela Gašparić, Marina Galić, Robert Vianello, Marijana Hranjec
SYNTHESIS AND SPECTROSCOPIC CHARACTERIZATION OF NEW BENZOXAZOLE DERIVATIVES AS POTENTIAL pH SENSORS IN SOLUTIONS
- 102 Erik Prce, Laura Kardum, Viktoria Ravlić, Marina Galić, Jurja Vukovinski, Leentje Persons, Dirk Daelemans, Marijana Hranjec
SYNTHESIS AND SPECTROSCOPIC CHARACTERIZATION OF BIOLOGICALLY ACTIVE BENZOXAZOLE DERIVATIVES
- 103 Leon Sačer, Srećko Kirin, Berislav Perić, Mirela Sedić, Silvana Raić-Malić
DESIGN AND SYNTHESIS OF NOVEL TRIAZOLE-SUBSTITUTED PHENANTHRO[9,10-d]IMIDAZOLE DERIVATIVES AND THEIR Ru(II) METAL COMPLEXES WITH POTENTIAL ANTITUMOR ACTIVITY
- 104 Karla Stražičić, Marijan-Pere Marković, Domagoj Vrsaljko, Petar Kassal, Irena Škorić
DEVELOPMENT OF 3D PRINTED FLOW MICROREACTORS FOR PHOTOCHEMICAL REACTION INTENSIFICATION
- 105 Filip Strmečki, Anja Beč, Iva Brlek, Livio Racané, Marijana Hranjec
SYNTHESIS, STRUCTURAL CHARACTERIZATION AND DYEING PROPERTIES OF NOVEL AZO BENZOTHIAZOLE DERIVATIVES
- 106 Nika Šajković, Donna Danijela Dragun, Ernest Meštrovic, Zlatko Smole, Domagoj Begušić, Damir Pintar
COMPUTATIONAL API FINGERPRINTING VIA THE COFFEE RING EFFECT
- 107 Gregor Talajić, Edi Topić, Nikola Cindro
SELF-SENSITIZED PHOTOXYGENATION OF DEHYDRO- α -LAPACHONE
- 108 Gregor Talajić, Edi Topić, Jana Hrnjak, Nikola Cindro
NOVEL SPIROOXETANE CONTAINING NAPHTHOQUINONES – SYNTHESIS AND BIOLOGICAL ACTIVITIES
- 109 Dragana Vuk, Vilma Lovrinčević, Nikica Baričević, Monika Šabić Runjavec, Marija Vuković Domanovac, Ines Despotović
ANTIMICROBIAL ACTIVITY OF ARYL-INDENES: EXPERIMENTAL AND COMPUTATIONAL STUDIES
- 110 Petra Vuković, Ivana Tomaz, Ana-Marija Jagatić Korenika, Ana Jeromel
EVALUATION OF TERROIR INFLUENCE ON VOLATILE COMPOUNDS IN 'PLAVAC MALI' BY GC-MS

Razvoj materijala i proizvoda | *Materials and products development*

- 111 Tatjana Baković Kultan, Ivana Šoljić Jerbić, Petra Pongrac, Fabio Faraguna
ADVANCED CHARACTERIZATION OF NON-LINEAR PLGA COPOLYMERS: BRANCHING ANALYSIS
- 112 Mehmet Bilgehan Bilgiç, Ceylan Zafer
DEVELOPMENT AND CHARACTERIZATION OF SMART POLYMER BASED MULTIFUNCTIONAL COATINGS FOR PHOTOVOLTAIC SOLAR PANELS

- 113 **Rahela Bilić, Nika Arambašić, Iva Kulušić, Hrvoje Tašner, Grgur Mihalinec, Zoran Mandić**
EFFECTS OF DISPERSANTS ON LITHIUM-ION BATTERIES PRODUCTION
- 114 **Amina Bjelić, Sara Baždalić, Zehrudin Osmanović**
THE IMPACT OF CLINKER, GYPSUM, SLAG AND ASH ADDITIVES ON CEMENT QUALITY
- 115 **Maja Dragić, Katarina Grlić Radman, Filip Brleković, Katarina Mužina, Stanislav Kurajica**
PREPARATION OF CeO_2 /SODIUM BIRNESSITE HETEROJUNCTIONS
- 116 **Alena Đogić, Rafael Anelić, Fabio Faraguna**
THERMAL PROPERTIES AND DEGRADATION OF PLGA PARTICLES PREPARED BY PRECIPITATION
- 117 **Karlo Grgurević, Dajana Kučić Grgić, Martina Miloloža Nikolić, Vesna Ocelić Bulatović, Kristina Kanižaj, Jasmina Ranilović**
RHEOLOGICAL BEHAVIOR, BARRIER PERFORMANCE, AND BIODEGRADATION OF PHBV/TIO₂ BIONANOCOMPOSITES
- 118 **Lana Grlić, Katarina Sokač Pogrmilović, Krunoslav Žižek**
TERNARY SOLID DISPERSIONS: PREPARATION AND POTENTIAL FOR CONTROLLED DRUG RELEASE
- 119 **Ivona Krznar, Barbara Štiglec, Hrvoje Tašner, Grgur Mihalinec, Zoran Mandić**
INFLUENCE OF THE CALENDARING PROCESS ON THE PROPERTIES OF NMC ELECTRODES IN LITHIUM-ION BATTERIES
- 120 **Martina Kujavić, Martina Krajpl, Zvonimir Katančić**
PREPARATION AND CHARACTERIZATION OF BIODEGRADABLE COMPOSITE POLYLACTIDE/HEMP
- 121 **Tadea Lažeta, Marija Labudović, Mustapha EL Cadiri, Suresh Kumar Pandey, Sandra Romac, Hrvoje Kušić, Marijana Kraljić Roković**
PREPARATION OF Co-DOPED WO₃PHOTOANODE VIA ELECTROCHEMICAL METHOD
- 122 **Karla Majkić, Kaja Mašić, Ana Šaravanja, Marijan-Pere Marković, Ljerka Kratočil Krehula**
PREPARATION AND CHARACTERIZATION OF POLYMER HYDROGELS WITH BEE POLLEN
- 123 **Silvija Petković, Eugen Milan Maršić**
PROCESSING AND INCORPORATION OF POLYMERIC FRACTION AS A FILLER IN ASPHALT MIXTURES
- 124 **Mateja Prpić, Dorina Kružić, Tea Mihelj Josipović, Vitomir Vušak, Tatjana Baković Kultan, Tamara Grgić, Marija Ćuzović, Ivana Šoljić Jerbić, Karlo Blažević, Fabio Faraguna**
CHARACTERIZATION OF A PLGA-BASED DRUG DELIVERY SYSTEM FOR SUSTAINED RELEASE OF INDOMETHACIN: ELUCIDATION OF DRUG RELEASE MECHANISM
- 125 **Maja Somogyi Škoc, Darinka Cvetković, Ana-Marija Srzić, Iva Rezić Meštrović**
PREPARATION AND CHARACTERISATION OF BIOPOLYMER COATINGS WITH CHITOSAN AND PROPOLIS ON TEXTILES
- 126 **Evelina Svedaite, Kestutis Baltakys, Tadas Dambrauskas**
TEXTURAL PROPERTIES OF Ca–Si ADSORBENTS SYNTHESIZED FROM NATURAL OPOKA
- 127 **Lovro Šelaj, Ardita Lazami, Maja Stanković, Rafael Anelić, Fabio Faraguna**
THERMAL PROPERTIES OF POLY(LACTIDE-CO-GLYCOLIDE) COPOLYMER AND DRUG FORMULATIONS AS POTENTIAL DELIVERY SYSTEMS WITH EXTENDED RELEASE

- 128 Lora Šoljak, Emma Beriša, Filip Brleković, Katarina Mužina, Stanislav Kurajica
PREPARATION OF MESOSTRUCTURED $Ce_{1-x}Zr_xO_2$ SOLID SOLUTIONS USING THE SOFT TEMPLATE METHOD
- 129 Andrea Špoljarić, Elvira Vidović
INFLUENCE OF TiO_2 MODIFICATION ON SURFACE PROPERTIES OF TiO_2 /PLA COMPOSITES
- 130 Juraj Toplak, Dino Kuzman, Višnja Vrdoljak
INFLUENCE OF SYNTHETIC CONDITIONS ON THE NUCLEARITY OF COPPER HYDRAZONE COMPLEXES
- 131 Matteo Zausnig, Mateja Pisačić, Božena Lovrić, Marijana Đaković
INVESTIGATION OF MECHANICAL PROPERTIES OF FLEXIBLE CRYSTALS BY STATIC TENSILE TESTING



Improving Global Animal Health and Welfare

Specialising in high quality products
exclusively for veterinarians



Want to join our team?
Find out more at careers.dechra.com



Developing



Manufacturing



Marketing & Sales

Energija povezuje



neu.

essentially committed

Specijalizirani za tretmane
otpadnih voda i napredna
kemijska rješenja u sektoru
nafte, plina i geotermalne
energije.

Predani inovacijama,
pouzdati u svakom projektu.



info@neu.hr

M BRAUN



DONAU LAB Ljubljana
Member of LPPgroup

Donau Lab d.o.o., Ljubljana
Tbilisjska 85
SI-1000 Ljubljana
www.donaulab.si
office-si@donaulab.com

büchiglasuster[®]
switzerland Pilot Plant and Reactor Systems



SYSTAG
automatisch besser



EHRFELD
Mikrotechnik



3P
INSTRUMENTS

Characterization of
particles • powders • pores



FOM
TECHNOLOGIES

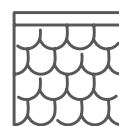
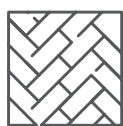


STO GODINA INOVACIJE, KVALITETE I LOKALNE SNAGE

Chromos boje i lakovi d.d. jedan je od najdugovječnijih hrvatskih industrijskih brendova, s više od 100 godina tradicije u razvoju inovativnih i visokokvalitetnih proizvoda i sustava za završne radove u graditeljstvu.

- lakovi za parkete
- unutarnje zidne boje
- fasadni sustavi
- boje za drvo i metal
- lakovi
- rješenja za podne i krovne sustave
- sustavi za sanaciju

Osnovan još 1920. godine, od svojih početaka negujemo načelo stvaranja proizvoda najviše kvalitete. Kroz desetljeća rasta i transformacija postali smo dio međunarodnih grupacija Helios i Kansai Paint, što nam je otvorilo vrata globalnim znanjima i naprednim tehnologijama. Naš tim vrhunskih stručnjaka svakodnevno stvara rješenja koja su u skladu sa najvišim ekološkim i sigurnosnim standardima.



HOLCIM STIPENDIJA

GRADIMO BUDUĆNOST ZAJEDNO

Natječaj za stipendiju stiže uskoro.
Pratite holcim.hr



Zajedno gradimo **održivu** **budućnost**



KONČAR

Doprinos društvu kroz znanost i tehnologiju

Shimadzu je vodeći svjetski proizvođač analitičkih i mjernih instrumenata. Nudimo sofisticirana i optimalna rješenja neophodna za istraživanje, razvoj i kontrolu kvalitete.

Naša rješenja!

Sustavi za plinsku kromatografiju (GC) osiguravaju pouzdanu i osjetljivu analizu hlapljivih spojeva sadržanih u uzorku.



Sustavi za plinsku kromatografiju - masenu spektrometriju (GC/MS) omogućuju brzu identifikaciju nepoznatih komponenti i preciznu kvantitativnu analizu, čak i za komponente u tragovima.



Masena spektrometrija s induktivno spregnutom plazmom (ICP-MS) je tehnika u kojoj se induktivno spregnuta plazma koristi kao ionizacijski izvor, a detekcija se vrši masenom spektrometrijom.



Sustavi za visoko učinkovitu tekućinsku kromatografiju (HPLC) podržavaju širok raspon aplikacija, uključujući analizu hrane, lijekova te uzoraka iz okoliša.



Spektrofotometri mjere intenzitet svjetlosti koju apsorbiraju ili emitiraju kemijske tvari.



Analizatori ukupnog organskog ugljika (TOC) mjere ukupnu količinu organskog ugljika u vodi, plinovima i čvrstim tvarima. Zadovoljavaju raznolik raspon potreba u područjima kao što su istraživanje okoliša, kontrola kvalitete i upravljanje procesima.

Sustavi za tekućinsku kromatografiju (LC) uspješno razdvajaju tvari na osnovi razmještanja između čvrste stacionarne faze i tekuće mobilne faze.



KONTAKTIRAJTE NAS!

Shimadzu d.o.o.
Zavrtnica 17, Zagreb, Hrvatska
tel. +385 1 6185 777
shimadzu@shimadzu.hr

solidian•kelteks



Join an international company with
35+ years of experience developing
reinforcement solutions for structures
and composites



[/solidian-kelteks.com](http://solidian-kelteks.com)



build solid.



CERTIFIED
ISO 9001
ISO 14001





ANSAR-ANALITIKA

RJEŠENJA I TEHNOLOGIJE POZNATIH PROIZVOĐAČA ZA RAZVOJ,
ISTRAŽIVANJE I KARAKTERIZACIJI MATERIJALA, KAO I KONTROLU
KVALITETE



- 3D nekontaktni profilometri
- Nanoindenteri
- Tribometrija



- Mikroskopi atomske sile (AFM)
- Kriostati za mikroskopiju i spektroskopiju
- Stolni NMR spektrometri
- Plazma tehnologije (RIE, RI-PE, PECVD, ICPVD, CVD, ALD...)

PROTO

- X-ray difraktometri (XRD) za prah
- X-ray difraktometri za monokristale
- X-ray spektrometri (XRF)
- XRD „residual stress“ mjerni sistemi



- Konfokalni Raman mikroskopi
- Prijenosi Raman spektrometri

HITACHI

- Skenirajući elektronski mikroskopi (SEM)
- Transmisijski elektronski mikroskopi (TEM)
- Stolni elektronski mikroskopi (benchtop SEM)



- FTIR spektrometri
- FTIR mikroskopi
- Istraživački i rutinski UV-VIS spektrometri
- Spektrofluorimetri



- Optomehaničke komponente i sistemi
- Izvori svjetlosti
- Optička vlakna i dijelovi
- Optički elementi i kitovi



Sjedište:
Zagrebačka cesta 164a
HR-1000 Zagreb

Telefon: +385 1 7980 857

Email: sales@ansar-analitika.hr

Web: www.ansar-analitika.hr

Experience the Scent of The Earth



Our purpose

To help people sense the world
around themselves in a better,
richer and more confident way.



Why You Should Choose Our Services

About Us

LabSense is a **GMP and ISO 9001** certified laboratory providing analytical services for QC and R&D.

Our operations follow Good Laboratory Practice (GLP) requirements, ensuring accurate, traceable, and compliant results.

-  **Reliable Results**
-  **QC & R&D Support**
-  **Automated Workflows**

Beyond analytical testing, we deliver tailored laboratory and process solutions, including equipment supply, digitalization, and automation.

Decades of combined experience in analytical laboratories and regulated environments.

Custom-made services tailored to your specific QC, R&D, and operational requirements.

From analytical testing to digitalization and automation — ensuring efficient, compliant, and future-ready operations.



Our Vision

To advance pharmaceutical, biotech, and high-precision industries through reliable analytical services, advanced laboratory and process equipment, and optimized, compliant workflows.

Our Mission

To deliver precise analytical testing and expert guidance, enabling confident decision-making in regulated research and production environments

Contact Us



-  +385 91 3567 932
-  info@labsense.hr
-  LabSense
-  lab-sense.eu
-  Borongajska cesta 83H
10000 Zagreb, Croatia

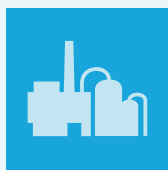


 LabSense Ltd.



Your Trusted Analytical CRO & Lab Solutions Partner

Make a difference,
Choose customization.



chemengineering

an Open Access Journal by MDPI

ChemEngineering (ISSN 2305-7084) is an international, peer-reviewed, open access journal on chemical engineering, which combines chemistry, physics and life science with mathematics and economics to produce, transform, transport and properly use chemicals and energy. Our aim is to encourage scientists and engineers to publish their experimental and theoretical results in as much detail as possible. Full experimental details must be provided so that the results can be reproduced. Communications, full research papers, and review papers are acceptable formats for the submission of manuscripts.

Website: <https://www.mdpi.com/journal/ChemEngineering>



coatings

an Open Access Journal by MDPI

Coatings (ISSN 2079-6412) is an international, peer-reviewed and open access journal devoted to the science and engineering of coatings, thin and thick films, surfaces and interfaces. Coatings publishes original research papers and brief communications that report on the latest finding of research together with review papers that systematize the remarkable points on the state of the art. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the maximum length of the papers. Full experimental and/or methodical details must be provided.

Website: <https://www.mdpi.com/journal/coatings>

$$S+M(L)=KI^{16}$$

