TBMCE 2025

3. – 5. 9. 2025 Grand Hotel Bernardin Portorož, Slovenia

CONFERENCE PROGRAMME













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TBMCE 2025: CONFERENCE PROGRAMME

Tuesday, 2. 9. 2025 – PRE-EVENT

Study vist Pilot and demonstration infrastructure @Acies Bio, Kamnik More information

H2GreenFuture congress @Bernardin, Portorož

Wednesday, 3	3. 9. 2025
9.00 - 10.00	Registration
10.00 - 11.00	 Jernej Salecl, Director-General; Industry, Entrepreneurship and Internationalisation Directorate; Ministry of the Economy, Tourism and Sport Mag. Marko Koprivc, State Secretary for Cohesion Policy, Ministry of Cohesion and Regional Development Mag. Polona Zakrajšek, Coordinator of SRIP – Circular Economy, Chamber of Commerce and Industry of Štajerska Prof. dr. Zdravko Kačič, Rector of the University of Maribor Prof. dr. Zoran Novak, University of Maribor, Dean of the Faculty of Chemistry and Chemical Engineering Prof. dr. Zdravko Kravanja, University of Maribor, Faculty of Chemistry and Chemical Engineering, President of the TBMCE conference
11.00 – 12.30	Round Table Circular Economy in Pharmaceutical Industry: How, When and Why? Moderated by: assoc. prof. dr. Blaž Likozar, National Institute of Chemistry Speakers: Boštjan Čeh, President of the Institute Council, Biotech Hills Institute Barbara Gunčar, NETS, d.o.o. mag. Damir Lukežić, Project Manager at LEK, a Sandoz company dr. Martin Kavšček, Acies Bio d.o.o. dr. Andreja Čufar, Head Of Quality Management and Regulatory affairs at Kemofarmacija
12.30 – 13.15	Keynote Lecture Data as the Fuel of the Circular Economy dr. Haris Salihagić Hrenko, Head of Strategic Development, Talum d.d. Kidričevo Chair: Prof. Zorka Novak Pintarič
13.15 – 15.00	Lunch













15.00 – 16.30	Panel discussion 1
	Bottom-up Approach to Clean Energy Transition: The Role of Local Energy Communities
	Moderated by: assist. prof. dr. Tine Seljak, Faculty of Mechanical Engineering, University of Ljubljana
	Speakers: Kristijan Adamlje, RRA Zasavje Niko Natek, KSSENA Zoran Marinšek, Competence Center for Advanced Control Technologies Boštjan Remic, FOCUS (Association for Sustainable Development)
16.30 – 17.00	Coffee break
17.00 – 18.30	Secondary Raw Materials and the Processing of Critical Raw Materials from Waste Moderated by: dr. Dragica Marinič, Slovenian National Building and Civil Engineering Institute Speakers: Tina Benda, EIT RawMaterials Jure Fišer, Surovina d.o.o., Slovenia Marco Segovia Bifarini, Climate KIC in Slovenia dr. Snježana Miletić, Geological Survey of Slovenia dr. Primož Oprčkal, Slovenian National Building and Civil Engineering Institute dr. Olga Thoda, Monolithos, Greece Karla Kosmač, M.Sc. Kolektor Mobility d.o.o., Slovenia
19.30 -	Get Together













Thursday, 4.	9. 2025	
8.00 – 9.00	Registration	
9.00 - 9.45	Plenary Lecture The Role of Lifecycle Engineering in Prof. Aoife Foley, Chair in Net Zero Infra leader of AVANTERN Group Chair: Prof. Zdravko Kravanja	Decarbonising Our Built Environment structure at The University of Manchester,
10.00 - 11.30	Panel discussion 3 Bio-Innovations: What Do We Need for Faster Comercialisation? Moderated by: prof. dr. Primož Oven, University of Ljubljana, Biotechical faculty Speakers: dr. Lukáš Rýček, Charles University, Faculty of Science, Czech Republic prof. dr. Polona Žnidaršič Plazl, University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia Robert Reinhardt, AlgEN d.o.o. dr. Katja Makovšek, National Institute of Chemistry, Slovenia	Lectures 1 Chair: Dr. Alenka Mauko Pranjić Optimizing Metal Recovery from EAF Dust: An Integrated Beneficiation and Extraction Strategy Gašper Tavčar, Jožef Stefan Institute (SI) Robert Kocjančič, Jožef Stefan Institute (SI) Davide Mombelli, Politecnico di Milano (IT) Carlo Mapelli, Politecnico di Milano (IT) Gianluca Dall'osto, Politecnico di Milano (IT) Dragan Radulović, Institute for technology of nuclear and other mineral raw materials (RS) Ivica Ristović, University of Belgrade (RS) Mateusz Ciszewski, Łukasiewicz Research Network – Institute of Non-ferrous Metals (PL) Jasna Kastivnik, Oretech (SI) Ana Mladenovič, Slovenian National Building and Civil Engineering Institute (SI) Alenka Mauko, Slovenian National Building and Civil Engineering Institute (SI) Chlorine Hydrometallurgy for a Circular Economy: MONOLITHOS' Solution Olga Thoda, MONOLITHOS Catalysts &
		Recycling Ltd. (GR) Anastasia Moschovi, MONOLITHOS Catalysts & Recycling Ltd. (GR) Ekaterini Polyzou, MONOLITHOS Catalysts & Recycling Ltd. (GR) Iakovos Yakoumis, MONOLITHOS Catalysts & Recycling Ltd. (GR)













		Biotechnological Approach in Critical Metals Recovery from Electronic Waste: Bioleaching of E-Waste and
		Lithium-Ion Battery Black Mass
		Valéria Mádai-Űveges, University of Miskolc (HU) Sándor Nagy, University of Miskolc (HU) Ljudmilla Bokányi, University of Miskolc (HU)
		Mobility of Selected Elements in Different Recycled Materials
		<u>Žan Hauptman</u> , Slovenian National Building and Civil Engineering Institute & Jožef Stefan International Postgraduate School (SI) Vesna Zalar Serjun, Slovenian National Building and Civil Engineering Institute (SI) Marija Đurić, Slovenian National Building and Civil Engineering Institute (SI) Radmila Milačič Ščančar, Jozef Stefan Institute (SI)
		Janez Ščančar, Jozef Stefan Institute (SI)
		A Business Model Framework for Up- Scaling Bioleaching Technology: From Laboratory to Semi-Industrial Applications
		Dragica Marinič, Slovenian National Building and Civil Engineering Institute (SI) Miha Štruc, Slovenian National Building and Civil Engineering Institute & Jožef Stefan International Postgraduate School (SI) Primož Oprčkal, Slovenian National Building and Civil Engineering Institute (SI) Marija Đurić, Slovenian National Building and Civil Engineering Institute (SI)
11.30 - 12.00	Cof	fee break
12.00 - 13.30	Panel discussion 4 Measuring the Progress to Circular Economy – Key Driver for Transition	Lectures 2 HyBReED: The Role of Large RDI Programmes in the Green Transition in Slovenia Chair: Dr. Sanja Potrč
	Moderated by: prof. dr. Zorka Novak Pintarič, University of Maribor, Faculty of Chemistry and Chemical Engineering	HyBReED Program and Its Role in Slovenian Hydrogen Ecosystem Tomaž Čebela, National Institute of Chemistry (SI)













	Speakers: assist. prof. dr. Tine Seljak, University of Ljubljana, Faculty of Mechanical Engineering Žiga Kobal, BELINKA PERKEMIJA kemična industrija, d.o.o. dr. Mojca Loncnar, SIJ Acroni d.o.o. Jasmina Karba, Ministry of the Environment, Climate and Energy	Modeling the Degradation of Bimetallic Catalysts for Fuel Cells Matej Prijatelj, Faculty of Mechanical Engineering, University of Ljubljana (SI) Challenges of the Circular Economy and Research Activities at the Impol Group Damjan Koder, IMPOL d.o.o. Renewables and Hydrogen Based Seasonal Operation of Various Industry Sectors With Solid Products Jure Voglar, National Institute of Chemistry
13.30 - 15.00	I	unch
15.00 - 15.30	Poster session	
15.30 - 16.00	The recent EDP (Enterpreneurial Dis Marko Hren, Ministry of Cohesion and Re Slovenia	·
16.00 - 17.30	Panel discussion 5 Reuse in Theory and in Real Life	Lectures 3 Chair: Prof. Polona Žnidaršič Plazl
	Moderated by: prof. dr. Mojca Škerget, University of Maribor, Faculty of Chemistry and Chemical Engineering	Keynote Lecture: Fungal-Driven Lignocellulosic Biorefineries: Bridging Bioeconomy, Sustainability, and Climate Resilience
	Speakers: dr. Bojan Pahor, Saubermacher Slovenija d.o.o. dr. Mojca Poberžnik, IOS, d.o.o	Prof. Marina Tišma, Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology (HR)
	Julie Harboe, Independent transdisciplinary researcher, Harboe Innovations Mojca Žganec Metelko, KNOF so.p.	Assessment of the Technological Feasibility and Economic Viability of Residue Valorisation in Apple Processing
		Katja Makovšek, National Institute of Chemistry (SI) Uroš Novak, National Institute of Chemistry (SI) Blaž Likozar, National Institute of Chemistry (SI)















		Ilja Gasan Osojnik Črnivec, National
		Institute of Chemistry (SI) Mija Sežun, Pulp and Paper Institute (SI)
		Matej Fatur, University of Ljubljana,
		Biotechnical faculty (SI)
		Luka Juvančič, University of Ljubljana,
		Biotechnical faculty (SI)
		Sustainable Lignin Extraction:
		Transforming Agricultural Waste Into
		Green Resources
		Marcell Gyurkač, University of Maribor &
		National Institute of Chemistry (SI)
		Edita Jasiukaitytė-Grojzdek, National
		Institute of Chemistry (SI)
		Blaž Likozar, National Institute of Chemistry
		(SI)
		Maša Knez Marevci, University of Maribor
		(SI)
		Miha Grilc, National Institute of Chemistry
		(SI)
		Development of Sustainable Amidation
		Process Using ATP-Dependent Amide
		Bond Synthetase
		Bona Synthetase
		<u>Žiga Gerdina</u> , University of Ljubljana,
		Faculty of Chemistry and Chemical
		Technology (SI)
		Tadej Menegatti, University of Ljubljana,
		Faculty of Chemistry and Chemical
		Technology (SI)
		András Kotschy, Servier Research Institute
		of Medicinal Chemistry (HU)
		Gábor Tasnádi, Servier Research Institute of
		Medicinal Chemistry (HU) Polona Žnidaršič Plazl, University of
		Ljubljana, Faculty of Chemistry and Chemical
		Technology (SI)
		reclinology (31)
15 20 10 00		
17.30 - 19.00	Lectures 4	Lectures 5
	Chair: Prof. Zdravko Kravanja	Chair: Prof. Igor Plazl
	Leveraging the FLUX Framework	Concept of and Proposal for
	for Circular Business Models:	International Distributed Laboratory
	Navigating Sustainable	for Hydrogen Technologies in Energy
	Transformation	Supply (DLHTE)
	1 I alistot mation	Supply (DEITTE)
	Yves Zieba, Geneva (CH)	Zoran Marinšek, Competence Center for
		Advanced Control Technologies, Ljubljana
		(SI)
		Sašo Brus, OFFSET Energy d.o.o. (SI)
		Gerhard Meindl, Es-geht!-Energiesysteme
		GmbH















Industry 4.0 Key Technologies as Technological Enablers of Circular Economy

Rudi Panjtar, Competence Center for Advanced Control Technologies (SI)

Cost Analysis of Future Defence Camps With a High Share of Renewable Energy Sources

<u>Urban Žvar Baškovič</u>, University of Ljubljana, Faculty of Mechanical Engineering (SI)

Žiga Rosec, University of Ljubljana, Faculty of Mechanical Engineering (SI)

Ariel Marie Stolz, University of Ljubljana, Faculty of Mechanical Engineering (SI)

Robert Šipec, Ministry of Defence of the Republic of Slovenia (SI)

Tomaž Katrašnik, University of Ljubljana,

Tomaž Katrašnik, University of Ljubljana, Faculty of Mechanical Engineering (SI)

The High-Resolution Spark-OES Chemical Composition Measurements for Ensuring the Quality of Recycled Aluminium Alloys

<u>Varužan Kevorkijan</u>, Impol Aluminium Industry (SI)

Simon Madžarac, Impol Aluminium Industry (SI)

Sandi Žist, Impol Aluminium Industry (SI)

Polyolefins From Landfill Mining – Energetic Valorization

<u>Tim Tetičkovič</u>, Scientific Research Centre Bistra Ptuj (SI)

Darja Pečar, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) **Dušan Klinar**, Scientific Research Centre Bistra Ptuj (SI)

Klavdija Rižnar, Scientific Research Centre Bistra Ptuj (SI)

The Evaluation of Processed Steel Slag for Its Use in the Production of Clay Bricks

Mojca Loncnar, SIJ Acroni (SI) Sara Tominc, Slovenian National Building and Civil Engineering Institute (SI)

Lea Žibret, Slovenian National Building and Civil Engineering Institute (SI) Maruša Mrak, Slovenian National Building and Civil Engineering Institute (SI)

Vilma Ducman, Slovenian National Building and Civil Engineering Institute (SI)

Heat Transfer Enhancement Methods for Compact Heat Exchangers With Mini and Micro Channels

<u>Petro Kapustenko</u>, Faculty of Mechanical Engineering, Brno University of Technology (CZ)

Zdravko Kravanja, University of Maribor (SI)

Igor Plazl, University of Ljubljana, Faculty of Chemistry and Chemical Technology (SI) **Petar Sabev Varbanov**, Széchenyi István University (HU)

Olga Arsenyeva, Paderborn University (DE) Leonid Tovazhnyanskyy, National Technical University "Kharkiv Polytechnic Institute" (UA)

Ting Pan, Faculty of Mechanical Engineering, Brno University of Technology (CZ)

Andreja Nemet, University of Maribor (SI)













	GreenChemForCE – Circularity in Central European Chemical Sector Lukáš Rýček, Charles University, Faculty of Science (CZ)	CarbonAction Žiga Kobal, BELINKA PERKEMIJA kemična industrija, d.o.o (SI) Andrej Podkoritnik, BELINKA PERKEMIJA kemična industrija, d.o.o. (SI) Vid Ogrizek, BELINKA PERKEMIJA kemična industrija, d.o.o. Igor Plazl, University of Ljubljana, Faculty of Chemistry and Chemical Technology (SI)
20.00	Gal	a Dinner













Friday, 5. 9. 20	025
9.00 – 10.30	Workshop on Circular and Digital Construction for Industry, Investors and Architects Chamber of Commerce and Industry of Štajerska, Slovenian National Building and Civil Engineering Institute, Nigrad d.o.o., and other partners from the ReBuilt Project Team
10.30 - 12.00	Lectures 6 Chair: Dr. Alenka Mauko Pranjić Innovations in Additive Manufacturing for Recycled Permanent Magnets Muhammad Shahid Arshad, Jozef Stefan Institute (SI) Urban Klanjšček, Faculty of Mechanical Engineering, University of Ljubljana (SI) Jakob Blomgren, RISE, Sensors and Materials group (SE) Christer Johansson, RISE, Sensors and Materials group (SE) Boris Saje, Kolektor KFH (SI) Kristina Žužek, Jozef Stefan Institute (SI) Establishing the Critical Raw Materials Laboratory (CRM LAB) – A Strategic Pillar for Circular and Sovereign Rare Earth Value Chains in the EU Benjamin Podmilišak, Jozef Stefan Institute (SI) Gašper Tavčar, Jozef Stefan Institute (SI) Kristina Žužek, Jozef Stefan Institute (SI) Tine Oblak, Jozef Stefan Institute (SI) Fabian Burkhardt, Jozef Stefan Institute (SI) Fabian Burkhardt, Jozef Stefan Institute (SI) Restoration of 80-Year-Old Timber Structure With Hempcrete: Ensuring Healthy Standards of Living Shivakumar Mani, COGREEN d.o.o. (SI) A Business Model for Recycling Agricultural Plastic Waste Silvester Bolka, Faculty of Polymer Technology (SI) Blaž Nardin, Faculty of Polymer Technology (SI) Nejc Šutar, University of Ljubljana, Biotechnical faculty (SI) Matej Fatur, University of Ljubljana, Biotechnical faculty (SI) Luka Juvančič, University of Ljubljana, Biotechnical faculty (SI) The Impact of Plastic Waste Import on the Environmental Degradation and Health Issues? Evidence From Network and Panel Data Analyses Semanur Soyyiğit, Kırklareli University, Faculty of Economics and Administrative Sciences
12.00-13.00	BRUNCH













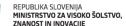
POSTER SESSION

Slot	
1	THE USAGE OF THE HYBRID RAW MATERIALS FOR ETHANOL PRODUCTION
1	Anita Kovač Kralj, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
2	OPTIMISATION OF RADIOACTIVE FLY ASH PROCESSING WITH FOCUS ON
_	MECHANICAL STRENGTH AND RADWASTE SAFETY OF MICROWAVE-
	IRRADIATED ALKALI-ACTIVATED MATERIAL
	Barbara Horvat, Milan Vidmar Electric Power Research Institute (SI)
	Nadja Železnik, Milan Vidmar Electric Power Research Institute (SI)
	Lara Petrič, University of Ljubljana, Biotechnical Faculty (SI)
	Sara Tomine, Slovenian National Building and Civil Engineering Institute (SI)
3	IMPACT OF MICROWAVE IRRADIATION ON ALKALI-ACTIVATED FLY ASH WITH
	REMOVED RADIONUCLIDES AND INCORPORATED KERATIN-BASED FIBRES
	Barbara Horvat, Milan Vidmar Electric Power Research Institute (SI)
	Nadja Železnik, Milan Vidmar Electric Power Research Institute (SI)
	Lara Petrič, University of Ljubljana, Biotechnical Faculty (SI)
	Sara Tominc, Slovenian National Building and Civil Engineering Institute (SI)
4	ENERGY-EFFICIENT COATINGS: THE ROLE OF HEAT-REFLECTING PIGMENTS
-	Mirica Karlovits, National Institute of Chemistry (SI)
	Blaž Likozar, National Institute of Chemistry (SI)
	Uroš Novak, National Institute of Chemistry (SI)
5	OPEN AQEOUS LOOP PLASTICS LITTER UTILIZATION IN CIRCULAR BUSINESS
	MODELS
	Mirica Karlovits, National Institute of Chemistry (SI)
	Igor Karlovits, National Institute of Chemistry (SI)
	Uroš Novak, National Institute of Chemistry (SI)
	Blaž Likozar, National Institute of Chemistry (SI)
6	EXPLORING RENEWABLE BIOPOLYMERS AS SUSTAINABLE ALTERNATIVES FOR
	FUNCTIONAL HYDROPHOBIC MATERIALS
	Anja Verbič, National Institute of Chemistry (SI)
	Vuk Martinović, National Institute of Chemistry (SI)
	Uroš Novak, National Institute of Chemistry (SI)
	Blaž Likozar, National Institute of Chemistry (SI)
	Blaž Stres, National Institute of Chemistry (SI)
7	FORMATION OF MICROPLASTICS FROM FIBRE-REINFORCED CEMENT AND
	THEIR POST-RELEASED BEHAVIOUR
	Katja Turk, Slovenian National Building and Civil Engineering Institute (SI), University of Ljubljana,
	Faculty of Chemistry and Chemical Technology (SI)
	Branka Mušič, Slovenian National Building and Civil Engineering Institute (SI)
8	HYDROTHERMAL DEGRADATION OF GLASS REINFORCED POLYCARBONATE
	PLASTIC
	Sara Pucelj, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Mihael Irgolič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Maja Čolnik, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Mojca Škerget, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)













HYDROTHERMAL CONVERSION OF PUMPKIN CAKE INTO REUSABLE SECONDARY PRODUCTS Nino Škafar, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Maja Čolnik, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Mihael Irgolič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Aleksandra Petrovič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Mojca Škerget, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) 10 MINERAL CO2 SEQUESTRATION IN INDUSTRIAL WASTE MATERIALS: A COMPARATIVE STUDY USING FTIR, TGA AND CALCIMETRY Sara Tominc, Slovenian National Building and Civil Engineering Institute (SI) Majda Pavlin, Slovenian National Building and Civil Engineering Institute (SI) Maruša Mrak, Slovenian National Building and Civil Engineering Institute (SI) Vilma Ducman, Slovenian National Building and Civil Engineering Institute (SI) Ognjen Rudić, Graz University of Technology (AT) Cyrill Vallazza-Grengg, Graz University of Technology (AT) 11 SURFACE ACTIVATION OF COTTON WITH PLASMA FOR IMPROVED CHITOSAN ADSORPTION Lidija Tušek, Scientific Research Centre Bistra Ptuj (SI) Lucija Flucher, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Matej Bračič, University of Maribor, Faculty of Mechanical Engineering (SI) Lidija Fras Zemljič, University of Maribor, Faculty of Mechanical Engineering (SI) Marjana Simonič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) 12 VIRTUAL TECHNOLOGIE FOR TEACHING ABOUT DRINKING WATER PREPARATION AND WASTEWATER TREATMENT Urška Rozman, University of Maribor, Faculty of Health Sciences (SI) Matevž Gabriel Može Guerrero, University of Maribor, Faculty of Chemistry and Chemical Engineering Sebastjana Klepec Hlebič, Mariborski vodovod, javno podjetje, d.o.o. (SI) Boštjan Erjavec, Mariborski vodovod, javno podjetje, d.o.o. (SI) Senka Husar, Mariborski vodovod, javno podjetje, d.o.o. (SI) Sonja Šostar Turk, University of Maribor, Faculty of Health Sciences (SI) 13 UTILIZATION OF INDUSTRIAL RED GYPSUM FOR SUSTAIANBLE CEMENTITIOUS AND GEOPOLYMER COMPOSITES Gregor Kravanja, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture (SI), University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Grega Kos, Cinkarna Celje, d.d. (SI) Pavel Blagotinšek, Cinkarna Celje, d.d. (SI) Dejan Verhovšek, Cinkarna Celje, d.d. (SI) Tinkara Marija Podnar, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture (SI) WASTE TO WORTH: PHOSPHORUS RECOVERY FROM SEWAGE SLUDGE PELLETS 14 WITH BIOLEACHING Miha Štruc, Slovenian National Building and Civil Engineering Institute, Jožef Stefan International Postgraduate School (SI) Primož Oprčkal, Slovenian National Building and Civil Engineering Institute (SI) Janez Ščančar, Jožef Stefan Institute (SI), Jožef Stefan International Postgraduate School (SI) Radmila Milačič Ščančar, Jožef Stefan Institute (SI), Jožef Stefan International Postgraduate School (SI) Aleš Lapanje, Jožef Stefan Institute (SI), Jožef Stefan International Postgraduate School (SI) Tomaž Rijavec, Jožef Stefan Institute (SI), Jožef Stefan International Postgraduate School (SI) Maja Zugan, Jožef Stefan Institute (SI), Jožef Stefan International Postgraduate School (SI) Marija Đurič, Slovenian National Building and Civil Engineering Institute (SI) 15 MODELING CONVECTIVE DRYING PROCESSES WITH PYTHON: A CASE STUDY ON MUNICIPAL SEWAGE SLUDGE Erik Mihelič. University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)

Marjana Simonič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)













16	EXTRACTIVES CONTENT IN DIFFERENTLY STORED BARK OF SILVER FIR (ABIES
	ALBA MILL.)
	Peter Hrovatič, University of Ljubljana, Biotechnical Faculty (SI)
	Ida Poljanšek, University of Ljubljana, Biotechnical Faculty (SI)
	Urša Osolnik, University of Ljubljana, Biotechnical Faculty (SI)
	Primož Oven, University of Ljubljana, Biotechnical Faculty (SI)
	Viljem Vek, University of Ljubljana, Biotechnical Faculty (SI)
17	CONVERSION OF SOLID-STATE FERMENTATION RESIDUES INTO SOLID
	BIOFUEL
	Aleksandra Petrovič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Pia Keršič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Danijela Urbancl, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Marina Tišma, Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology (HR)
	Lidija Čuček, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
18	PREDICTION OF HYDROPHOBIC PROPERTIES IN BIOPOLYMER-BASED
	COATINGS VIA FORMULATION DATA MODELLING
	Anja Verbič, National Institute of Chemistry (SI)
	Vuk Martinović, National Institute of Chemistry (SI)
	Rubén Saborido, University of Málaga (ES)
	Antonio Borrego, University of Málaga (ES)
	Mariano Luque, University of Málaga (ES)
	Uroš Novak, National Institute of Chemistry (SI)
	Blaž Likozar, National Institute of Chemistry (SI)
10	Blaž Stres, National Institute of Chemistry (SI)
19	URBAN CIRCULARITY - BUSINESS MODEL FRAMEWORK
	Klavdija Rižnar, Scientific Research Centre Bistra Ptuj (SI)
20	Nataša Mršek, Scientific Research Centre Bistra Ptuj (SI)
20	DEVELOPMENT OF A CARBON FOOTPRINT EVALUATION TOOL FOR THE SLOVENIAN HEALTHCARE SECTOR
	Pia Keršič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Chunyan Si, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Lidija Čuček, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Damjan Krajnc, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI), Chamber of
	Commerce and Industry of Štajerska (SI)
21	A REVIEW OF CARBON FOOTPRINT AND DECARBONIZATION EFFORTS IN
	HEALTHCARE
	Pia Keršič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Lidija Čuček, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Chunyan Si, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Damjan Krajnc, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI), Chamber of
	Commerce and Industry of Štajerska (SI)
22	UNLOCKING THE POTENTIAL OF CORN COBS BIOMASS FOR BIOREFINERY
	VALORIZATION
	Katja Makovšek, National Institute of Chemistry (SI)
	Blaž Likozar, National Institute of Chemistry (SI)
	Uroš Novak, National Institute of Chemistry (SI)
23	ECONOMIC, ENVIRONMENTAL-CLIMATIC, AND SOCIAL CONSEQUENCES OF
_	SETTING MINIMUM FOOD SELF-SUFFICIENCY LEVELS IN SLOVENIA
	Jan Drofenik, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Bojan Pahor, Saubermacher Slovenija d.o.o., University of Maribor, Faculty of Chemistry and Chemical
	Engineering (SI)
	Zorka Novak Pintarič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)













24	REGULATORY AND STRATEGIC REVIEW OF CIRCULAR ECONOMY
	IMPLEMENTATION IN ADRIATIC-IONIAN REGION WITH FOCUS ON LOCAL
	CHALLENGES AND UPCYCLING OPPORTUNITIES
	Ksenija Vuk Kostanjevec, Scientific Research Centre Bistra Ptuj (SI)
	Nađa Ćirović, Institute Mihajlo Pupin, Science and Technology Policy Research Center (RS)
	Klavdija Rižnar, Scientific Research Centre Bistra Ptuj (SI)
25	OPTIMIZATION OF MULTI-SCALE REACTOR NETWORKS FOR POWER-TO-X
	David Tian Hren, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Zdravko Kravanja, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Andreja Nemet, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
26	GOLD-MODIFIED MAGNETIC BIOPOLYMER NANOHYBRID COATINGS AS
	ELECTROCHEMICAL SENSORS FOR CHLORAMPHENICOL DETERMINATION
	Olivija Plohl, University of Maribor, Faculty of Mechanical Engineering (SI)
	David Majer, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Lidija Fras Zemljič, University of Maribor, Faculty of Mechanical Engineering (SI)
	Sašo Gyergyek, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI), Jožef Stefan
	Institute (SI)
_	Matjaž Finšgar, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
27	MULTI-CRITERIA OPTIMIZATION OF ECONOMIC AND ENVIRONMENTAL
	SUSTAINABILITY IN POWER-TO-X SYSTEMS
	Tinkara Ošlovnik, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Matjaž Denac, University of Maribor, Faculty of Economics and Business (SI)
	Lidija Čuček, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
20	Zorka Novak Pintarič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
28	ASSESSMENT OF ANALYTICAL METHODS FOR PALLADIUM DETECTION IN
	PHARMACEUTICAL WASTE STREAMS
	Oksana Golovko-Kamoshenkova, Charles University, Faculty of Science (CZ)
	Eliška Matoušová, Charles University, Faculty of Science (CZ)
	Lukáš Rýček, Charles University, Faculty of Science (CZ)
	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ)
20	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ)
29	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC
29	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE
29	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraniček, Charles University, Faculty of Science (CZ) METAL-ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of
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29	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of
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30	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) BIOACTIVE COMPOUNDS IN AVOCADO (PERSEA AMERICANA L.) SEED WITH
	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraniček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) BIOACTIVE COMPOUNDS IN AVOCADO (PERSEA AMERICANA L.) SEED WITH ENZYMATIC, ANTIOXIDANT, AND ANTIMICROBIAL ACTIVITIES
	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraniček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) BIOACTIVE COMPOUNDS IN AVOCADO (PERSEA AMERICANA L.) SEED WITH ENZYMATIC, ANTIOXIDANT, AND ANTIMICROBIAL ACTIVITIES Mateja Primožič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraniček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) BIOACTIVE COMPOUNDS IN AVOCADO (PERSEA AMERICANA L.) SEED WITH ENZYMATIC, ANTIOXIDANT, AND ANTIMICROBIAL ACTIVITIES
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	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ) METAL-ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) BIOACTIVE COMPOUNDS IN AVOCADO (PERSEA AMERICANA L.) SEED WITH ENZYMATIC, ANTIOXIDANT, AND ANTIMICROBIAL ACTIVITIES Mateja Primožič, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Kaja Kupnik, Faculty of Polymer Technology (SI) Ana Milivojević, University of Belgrade, Faculty of Technology and Metallurgy (RS) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI)
	Lukáš Rýček, Charles University, Faculty of Science (CZ) Václav Červený, Charles University, Faculty of Science (CZ) Jakub Hraníček, Charles University, Faculty of Science (CZ) METAL—ORGANIC FRAMEWORK-BASED PLATFORMS FOR ANTIBIOTIC DEGRADATION VIA IMMOBILIZED β-LACTAMASE Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) Maja Leitgeb, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Medicine (SI) BIOACTIVE COMPOUNDS IN AVOCADO (PERSEA AMERICANA L.) SEED WITH ENZYMATIC, ANTIOXIDANT, AND ANTIMICROBIAL ACTIVITIES Mateja Primožić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) Kaja Kupnik, Faculty of Polymer Technology (SI) Ana Milivojević, University of Belgrade, Faculty of Technology and Metallurgy (RS) Željko Knez, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of





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31 YEAST BIOMASS PRODUCTION USING SPENT COFFEE GROUNDS IN COST-EFFICIENT GROWTH MEDIA

Tadeja Vajdič, University of Maribor, Faculty of Natural Sciences and Mathematics (SI)

Alen Koren, University of Maribor, Faculty of Natural Sciences and Mathematics (SI)

Pia Šoštarić, University of Maribor, Faculty of Natural Sciences and Mathematics (SI)

Katja Vasić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI); University of Maribor, Faculty of Electrical Engineering and Computer Science (SI)

Mateja Primožić, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)

Marjanca Starčić Erjavec, University of Maribor, Faculty of Natural Sciences and Mathematics; University

32 VALUE CHAIN CREATION IN THE INNOVATIVE E-WASTE RECYCLING BUSINESS MODEL

Dragica Marinič, Slovenian National Building and Civil Engineering Institute (SI) Miha Štruc, Slovenian National Building and Civil Engineering Institute, Jožef Stefan International Postgraduate School (SI)

Mateja Košir, Slovenian National Building and Civil Engineering Institute (SI) Primož Oprčkal, Slovenian National Building and Civil Engineering Institute (SI)

33 THE SLOVENIAN CENTRE FOR CIRCULAR ECONOMY

Dragica Marinič, Slovenian National Building and Civil Engineering Institute (SI) Anja Kodrič, Slovenian National Building and Civil Engineering Institute (SI) Alenka Mauko Pranjić, Slovenian National Building and Civil Engineering Institute (SI) Primož Oprčkal, Slovenian National Building and Civil Engineering Institute (SI) Grit Ackermann, The Chamber of Commerce and Industry of Slovenia (SI) Antonija Božič Cerar, The Chamber of Commerce and Industry of Slovenia (SI) Urška Spitzer, The Chamber of Commerce and Industry of Slovenia (SI)