TBMCE 2026

9. – 11. 9. 2026
Grand Hotel Bernardin
Portorož, Slovenia

CONFERENCE PROGRAMME

The operation is partly financed by the European Union from the European Regional Development Fund. The operation is implemented under the Priority Investment "Innovative Knowledge Society" and the Specific Objective RSO1.1 "Develop and improve research and innovation capacity and deployment of advanced technologies".

"This investment is co-financed by the Republic of Slovenia and the European Union Fund for Regional Development"

"The event is held under the patronage of the Ministry of the Economy, Labour and Sport"

REPUBLIC OF SLOVENIA
MINISTRY OF THE ECONOMY, LABOUR AND SPORT

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ZAVOD ZA GRADBENIŠTVO SLOVENIJE
SLOVENIAN NATIONAL BUILDING AND CIVIL ENGINEERING INSTITUTE

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Dravske elektrarne Maribor

Skupina hse

TBMCE 2026: CONFERENCE PROGRAMME

Wednesday, 9. 9. 2026	
9.00 - 10.00	Registration
10.00 - 10.45	**Opening Ceremony** • Ministry of the Economy, Labour and Sport • Chamber of Commerce and Industry of Štajerska • 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
10.45 – 12.15	**Round Table** **Pathways to Decarbonization: Alternative Energy and Carbon Capture and Utilization** Moderated by: **Assist. prof. dr. Tine Seljak**, Faculty of Mechanical Engineering, University of Ljubljana Speakers: **dr. Mojca Loncnar,** SIJ Acroni d.o.o. **dr. Haris Salihgić Hrenko**, Talum d.d. Kidričevo **dr. Ilja Gasan Osojnik Črnivec**, Center for Development, Demonstration and Training for Carbon-Free Technologies (SI) **Davor Rašić**, Ministry of Infrastructure and Energy
12.15– 13.00	**Keynote Lecture** **Circular Economy and Life-cycle Innovation: From Microalgae to Outer Space** **Dr Matjaž Vidmar**, School of Engineering, The University of Edinburgh
13.00 – 14.30	Lunch

<table>
<tr><td>14.30 – 16.00</td><td colspan="2">Panel discussion 1

What the FOAK: Why Promising Technologies Fail to Reach Industry?

Moderated by:
Prof. Blaž Likozar, National Institute of Chemistry (SI)

Speakers:
Dr. Gregor Kosec, ACIES BIO d.o.o.
Prof. Gašper Tavčar, Institute Jožef Štefan
Dr. Igor Mihelič, Melamin d.d. Kočevje
Dr. Robert Reinhardt, AlgEn d.o.o.
Prof. Primož Oven, University of Ljubljana, Biotechical faculty</td></tr>
<tr><td>16.00 – 16.30</td><td colspan="2">Coffee break</td></tr>
<tr><td>16.30 – 18.00</td><td>Panel discussion 2

Critical Raw Materials: Europe’s Achilles' Heel – or Opportunity? Europe’s dependence on imported critical raw materials

Moderated by:
Dr. Primož Oprčkal, Slovenian National Building and Civil Engineering Institute (SI)</td><td>Lectures 1: From Research to Application: Cross-Sector Energy Technologies for the Climate Transition

Chair: Blaž Likozar, National Institute of Chemistry (SI)

ILIMITED: First-ever Ionic Liquid Sorbent Methanol Synthesis in Order to Enable Over 80% Yield

<u>Anže Prašnikar</u>, National Institute of Chemistry (SI)

PeCATHs: A Sustainable Way to Store Hydrogen

<u>Francisco Fabregat-Santiago</u>, Universitat Jaume I (ES)
Jose Mata, Universitat Jaume I (ES)
Carmen Mejuto, Universitat Jaume I (ES)
Rosario Vidal, Universitat Jaume I (ES)
Elena Mas-Marzá, Universitat Jaume I (ES)
Cristian Bachmann, Universitat Jaume I (ES)
David Tilley, University of Zurich (CH)
Thomas Moehl, University of Zurich (CH)
Jordi Arbiol, Catalan Institute of Nanoscience and Nanotechnology (ES)
Max Garcia-Melchor, CIC EnergiGune (ES)
Conor Brennan-Pollak, Trinity College Dublin (IE)
Nuria Mañés-Beltrán,
Comet Global Innovation (ES)</td></tr>
</table>

		ILIMITED: Adsorbent Design for Process Intensification in CO_2 Valorisation to Methanol **Filipe H. B. Sosa**, University of Aveiro (PT) **João Fabian**, University of Aveiro (PT) **Murilo Alcântara**, University of Aveiro (PT) **João A. P. Coutinho**, University of Aveiro (PT)
		NOVETROL: Application of LCA and S-LCA to low-TRL Technologies: A Case Study of a Novel Current-limiting Solution for the Energy Transition **Martina Pucciarelli**, Spin Life s.r.l. (IT) **Matilde Cavalli**, University of Padova (IT) **Matteo Superchi**, Spin Life s.r.l. (IT) **Alessandro Manzardo**, University of Padova (IT)
		CarbNETs: CO_2 Capture, Thermal Energy Management, and Electrification Using Net-Zero Industrial Technologies for Decarbonisation **Tomaž Čebela**, Center for Development, Demonstration and Training for Carbon-Free Technologies (SI) **Blaž Likozar**, National Institute of Chemistry (SI) **Janvit Teržan**, Center for Development, Demonstration and Training for Carbon-Free Technologies (SI) **Ilja Gasan Osojnik Črnivec**, Center for Development, Demonstration and Training for Carbon-Free Technologies (SI)
19.00 -	Get Together	

<table>
<tr><th colspan="3">Thursday, 10. 9. 2026</th></tr>
<tr><td>8.00 – 9.00</td><td colspan="2">Registration</td></tr>
<tr><td>9.00 - 9.45</td><td colspan="2">Plenary Lecture
The Use of AI in Industrial Biotechnology Applications (TBC)
Prof. Antonis Kokossis, CEng, FIChemE, FRSA, FIET & Leverhulme Visiting Professor at Imperial College, London;
European Federation, Sustainability Section, Chair
National Technical University of Athens (GR)
Chair: Prof. Zdravko Kravanja</td></tr>
<tr><td rowspan="4">10.00 - 11.30</td><td rowspan="4">Panel discussion 3

Circularity of Material Flows in Slovenia: how to advance the use of secondary resources in SLO

Moderated by: Slovenian Centre for Circular Economy</td><td>Lectures 2</td></tr>
<tr><td>Towards Decarbonizing Agri-Food Industrial Heat: A Case Study Applied to a Jam Waste Valorization Process

<u>Carlos Sanz</u>, University of Salamanca (ES)
Alberto Almena, University of Salamanca (ES)
Mariano Martín, University of Salamanca (ES)</td></tr>
<tr><td>Advancing Sustainable Shipping with Ammonia: An Integrated Techno-Economic and Environmental Assessment

<u>Antonio Sánchez</u>, University of Salamanca (ES)
Richard Cabrera-Jiménez, ETH Zurich, (CH)
Gonzalo Guillén-Gosálbez, ETH Zurich, (CH)
Mariano Martín, University of Salamanca (ES)</td></tr>
<tr><td>A Chemical Clock for Polyolefin Pyrolysis: Time-Temperature Superposition of Product Yield Distributions

<u>Tim Tetičkovič</u>, Scientific Research Centre Bistra (SI)
Dušan Klinar, Scientific Research Centre Bistra (SI)
Klavdija Rižnar, Scientific Research Centre Bistra (SI)
Darja Pečar, University of Maribor (SI)</td></tr>
</table>

		Conversion of Driftwood into Biofuel: A Best Practice Example from Dravske Elektrarne Maribor **Polonca Ojsteršek**, Dravske elektrarne Maribor, d.o.o. (SI)
		TBC
11.30 - 12.00	Coffee break	
12.00 - 13.30	**Bridging Science, Business, and Regions: Essential Steps for a Stronger Innovation Ecosystem** **Marko Hren,** Head of the Smart Specialisation Coordination Division, Ministry of Local Self-Government, Cohesion and Regional Development of the Republic of Slovenia	**Lectures 3:** Slovenian National Building and Civil Engineering Institute (SI)
		TBC
13.30 - 14.45	Lunch	
14.45 - 15.15	**Poster session**	
15.15-15.30	Presentation of the SI.BIO HUB Slovenia	
15.30 - 17.00	**BIOEAST Pitching Event 2026** Circular Change in cooperation with SI.BIO HUB Slovenia, BIOEAST HUB Croatia	
17.00 - 18.30	**Panel discussion 4** Moderated by: Slovenian National Building and Civil Engineering Institute (SI)	**Lectures 4**
		Biofarms Cluster: Good Practices – TBC

		The Future of the Circular Aluminum Economy: From Material Circularity to Performance-Based Circularity **Varužan Kevorkijan**, Impol Aluminum Industry (SI)
		Digital and Standardized Governance for Circular Business Models: Industrial Symbiosis in Slovenia **Erika Džajić Uršič**, Rudolfovo – Science and Technology Centre (SI)
		Consumer Decision-Making in the Circular Bioeconomy: Evidence from a Multi-Country Discrete Choice Experiment **Karolina Kosjek**, University of Ljubljana (SI) **Matej Fatur**, University of Ljubljana (SI) **Damianos Michailidis**, Rainno Idiotiki Kefalaiouchiki Etaireia (GR) **Giuseppe Bogani**, Lombardy Green Chemistry Association (IT) **Urte Raubytė**, AgriFood Lithuania DIH (LT) **Luka Juvančič**, University of Ljubljana (SI)
		Opportunities and Challenges of AI Support in the Assessment of Environmental Impacts of Circular Bio-Based Products **Luka Goropečnik**, University of Ljubljana (SI) **Matej Fatur**, VCG.AI GMBH, Stuttgart, (DE) **Jože Kropivšek**, University of Ljubljana (SI) **Matej Jošt**, University of Ljubljana (SI) **Karolina Kosjek**, University of Ljubljana (SI) **Javier Vargas**, VCG.AI GMBH, Stuttgart, (DE) **Damianos Michailidis**, Rainno Idiotiki Kefalaiouchiki Etaireia (GR) **Luka Juvančič**, University of Ljubljana (SI)
20.00	Gala Dinner	

Friday, 11. 9. 2026		
9.00 – 10.30	**Lectures 5**	
9.00-9.30	**Keynote lecture** **Multiscale Aproaches to Develop a Biocircular Economy** **Carlos Sanz**, University of Salamanca (ES) **Vanessa Villazón-León**, Instituto Technoloógico de Aguascalientes (MX) **Roberto Cifuentes**, University of Salamanca (ES) **Manuel Taifouris**, University of Salamanca (ES) **Mariano Martín**, University of Salamanca (ES)	
9.30-9.50	**Unlocking Underutilized Woody Biomass: Extractives of Damaged and Bark Beetle-Attacked Norway Spruce Trees** **Vanja Štolcer**, Kompetenzzentrum Holz GmbH (AT) **Ida Poljanšek**, University of Ljubljana (SI) **Viljem Vek**, University of Ljubljana (SI) **Primož Oven**, University of Ljubljana (SI)	
9.50-10.10	**Effect of Storage Conditions on the Extractives Content in Silver Fir (*Abies alba* Mill.) Bark** **Peter Hrovatič**, University of Ljubljana (SI) **Ida Poljanšek**, University of Ljubljana (SI) **Urša Osolnik**, University of Ljubljana (SI) **Primož Oven**, University of Ljubljana (SI) **Viljem Vek**, University of Ljubljana (SI)	
10.10-10.30	**Assessment of the Economic Feasibility and Environmental Sustainability of Acid Whey Valorization with Ultrafiltration** **Matej Fatur**, University of Ljubljana (SI) **Stane Kavčič**, University of Ljubljana (SI) **Karolina Kosjek**, University of Ljubljana (SI) **Bojana Bogovič Matijašić**, University of Ljubljana (SI) **Giulia Di Filippo**, University of Udine (IT) **Niccolo Renoldi**, University of Udine (IT) **Nadia Innocente**, University of Udine (IT) **Jure Gramc**, University of Ljubljana (SI) **Luka Juvančič**, University of Ljubljana (SI)	

10.30 - 12.00	**Lectures 6**	**Lectures 7**
	Metrology as the Foundation of Trust in Circular Aluminum: From Impol's Industrial Practice to Advanced Tools for European Circular Industry **Varužan Kevorkijan**, Impol Aluminum Industry (SI)	**Wastewater Treatment Plants as Circular and Flexible Energy Hubs through Sludge Management, Biogas Utilization and Renewable Energy Integration** **Hazem Han Ashour**, University of Ljubljana (SI) **Tine Seljak,** University of Ljubljana (SI) **Andrea Turolla,** Politecnico di Milano (IT) **Mihael Sekavčnik,** University of Ljubljana (SI)
	Bio-Based Methacrylate Miniemulsions for High-Performance Sustainable Coating Applications **Blaž Užmah**, Helios Resins (SI) **Natalija Končan Volmajer,** Helios Resins (SI) **Zala Kožuh,** Helios Resins (SI) **Martin Ocepek,** Helios Resins (SI) **Tomaž Pirman,** Helios Resins (SI) **Jožefa Zabret,** Helios Resins (SI) **Tina Razboršek,** Helios Resins (SI)	**Developing a Surrogate Reactor Network Model for Sewage Sludge Gasification and a Reduced Kinetic Mechanism for CFD Use** **Gholamreza Masoudi Rad**, University of Ljubljana (SI) **Miha Sekavčnik**, University of Ljubljana (SI) **Tine Seljak**, University of Ljubljana (SI)
	Towards Sustainable Packaging Materials: Poly(vinyl alcohol) Biocomposite Films Reinforced with Green Fillers **Urša Osolnik**, University of Ljubljana (SI) **Peter Hrovatič,** University of Ljubljana (SI) **Viljem Vek,** University of Ljubljana (SI) **Primož Oven,** University of Ljubljana (SI) **Miha Humar,** University of Ljubljana (SI) **Ida Poljanšek,** University of Ljubljana (SI)	**Experimental Evaluation of Dry Sludge Combustion from Sewage Treatment Plants** **Muhammad Al Yousaf**, University of Ljubljana (SI) **Mihael Sekavčnik**, University of Ljubljana (SI) **Tine Seljak**, University of Ljubljana (SI)
	Optimization of Clay-Based Plasters Reinforced with Hemp Shives: Effect of Sand-Clay-Shives Ratio on Mechanical Properties (CHOICE) **Shivakumar Mani,** Slovenian National Building and Civil Engineering Institute (SI) **Vilma Ducman,** Slovenian National Building and Civil Engineering Institute (SI) **Lea Žibret,** Slovenian National Building and Civil Engineering Institute (SI) **Alenka Pavlin,** TERMIT (SI) **Primož Zorec,** COGREEN d.o.o., **(SI)**	**Assessing Natural Yeasts as Immobilizable Biocatalysts for Bioremediation of Metal-Contaminated Soil and Valorization of Waste Cooking Oil** **Tadeja Vajdič,** University of Maribor (SI) **Tjaša Zajec,** University of Maribor (SI) **Eva Horvat,** University of Maribor (SI) **Mišel Fridl,** University of Maribor (SI) **Vladyslav Zdanskyi,** University of Maribor (SI) **Mykola Honcharenko,** University of Ljubljana (SI) **Nick Leben,** University of Maribor (SI) **Brin Hlade,** University of Maribor (SI)

		Gordana Hojnik Podrepšek, Javno podjetje Snaga, d.o.o. (SI) **Katja Vasić,** University of Maribor (SI) **Marjanca Starčič Erjavec**, University of Maribor (SI), University of Ljubljana (SI)
	Pretreatment-Enabled Enzymatic Depolymerization of PET Polymer for High-Purity Terephthalic Acid Recovery **Tamilpavai Allwin Mabes Rai,** IOS, Institute of Environmental Protection and Sensors (SI), University of Maribor (SI) **Mojca Poberžnik,** IOS, Institute of Environmental Protection and Sensors (SI) **Maša Knez Marevci,** University of Maribor (SI) **Urban Bren,** University of Maribor (SI) **Aleksandra Lobnik,** IOS, Institute of Environmental Protection and Sensors (SI), University of Maribor (SI)	
12.00-13.00	BRUNCH	

POSTER SESSION

Slot	
1	**THE FORMALIN PRODUCTION FROM WASTE** *Anita Kovač Kralj*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
2	**IMAGE-BASED ASSESSMENT OF PLEUROTUS OSTREATUS MYCELIAL COLONIZATION ON MUNICIPAL SEWAGE SLUDGE-SUPPLEMENTED SUBSTRATES** *Erik Mihelič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Marjana Simonič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Katarina Zavrl*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Olivija Plohl*, University of Maribor, Faculty of Mechanical Engineering (SI)
3	**TECHNOLOGY ACCEPTANCE MODEL ANALYSIS FOR A POTENTIAL SMART WASTE SEGREGATION SYSTEM IN MASHHAD CITY** *Barmak Sadri*, Ferdowsi University of Mashsad, Faculty of Literature & Humanities of Dr.Ali Shariati Department of Geography,Mashhad, (IR) *Baratali Khakpoor*, Ferdowsi University of Mashsad, Faculty of Literature & Humanities of Dr.Ali Shariati Department of Geography,Mashhad, (IR) *Mohammad Ajza Shokouhi,* Ferdowsi University of Mashsad, Faculty of Literature & Humanities of Dr.Ali Shariati Department of Geography,Mashhad, (IR)
4	**A CIRCULAR MONITOR TOOL FOR CITIES: AN INDICATOR FRAMEWORK FOR LOCAL PLANNING** *Klavdija Rižnar*, Znanstveno-raziskovalno središče Bistra (SI) *Alja Širovnik*, Znanstveno-raziskovalno središče Bistra (SI)
5	**GEOTECHNICAL CHARACTERIZATION OF RED GYPSUM** *Tinkara Marija Podnar*, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture (SI) *Darko Zakelšek*, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture (SI) *Gregor Kravanja*, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture; Faculty of Chemistry and Chemical Engineering (SI) *Grega Kos*, Cinkarna Celje d.d. (SI) *Dejan Verhovšek*, Cinkarna Celje d.d. (SI) *Bojan Žlender*, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture (SI)
6	**OPTIMIZATION OF RED GYPSUM GRANULATION AND STABILIZATION FOR SUSTAINABLE CONSTRUCTION** *Gregor Kravanja*, University of Maribor, Faculty of Civil Engineering, Transportation Engineering and Architecture; Faculty of Chemistry and Chemical Engineering (SI) *Grega Kos*, 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)
7	**POLYCARBONATE RECYCLING USING SUPERCRITICAL ALCOHOLS** *Julija Ribarić*, 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)
8	**HYDROTHERMAL CONVERSION OF WASTE CIGARETTE FILTERS** *Tajana Bistrović*, 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) *Danijela Urbancl*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Mojca Škerget*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)

9	**COMPOSITION-CONTROLLED FORMATION AND SWELLING STABILITY OF CROSSLINKER-FREE POLYELECTROLYTE HYDROGELS FROM QUATERNIZED CHITOSAN AND HYALURONIC ACID** *Lidija Tušek*, SRC Bistra Ptuj (SI) *Kenan Kapetanović*, University of Maribor, Faculty of Mechanical Engineering (SI) *Matej Bračič*, University of Maribor, Faculty of Mechanical Engineering (SI) *Lidija Fras Zemljič*, University of Maribor, Faculty of Mechanical Engineering (SI)
10	**VIRIDI ACADEMY: CROSS-BORDER E-LEARNING FOR CIRCULAR BUSINESS MODELS IN SMES** *Lidija Tušek*, SRC Bistra Ptuj (SI) *Robert Novak*, SRC Bistra Ptuj (SI) *Klavdija Rižnar*, SRC Bistra Ptuj (SI) *Ksenija Vuk Kostanjevec*, SRC Bistra Ptuj (SI) *Tjaša Glažar*, SRC Bistra Ptuj (SI) *Dragica Marinič*, Slovenian National Building and Civil Engineering Institute (SI) *Primož Oprčkal*, Slovenian National Building and Civil Engineering Institute (SI) *Petra Arzenšek*, Chamber of Commerce and Industry of Slovenia (SI) *Antonija Božič Cerar*, Chamber of Commerce and Industry of Slovenia (SI) *Neža Einspieler*, Economic Chamber of Carinthia (AT) *Kathrin Gindl*, Energieforum Kärnten (AT) *Barbara Wrolich*, Slovenska gospodarska zveza (AT)
11	**CONTROLLING CALCIUM CARBONATE POLYMORPHISM IN CO_2-BASED PRECIPITATION: VATERITE, ARAGONITE AND SCALENOHEDRAL CALCITE TOWARDS MICROREACTOR SYNTHESIS** *Tim Tetičkovič*, SRC Bistra Ptuj (SI) *Dušan Klinar*, SRC Bistra Ptuj (SI) *Klavdija Rižnar*, SRC Bistra Ptuj (SI)
12	**DEVELOPMENT AND EVALUATION OF A PYTHON-BASED FLUID SIMULATION FRAMEWORK USING THE LATTICE BOLTZMANN METHOD** *Jure Konjar,* University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Miloš Bogataj,* University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
13	**VALORISATION OF FLAXSEED CAKE THROUGH RANDALL EXTRACTION OF BIOACTIVE COMPOUNDS** *Kristina Genc*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Maja Čolnik*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Marjana Simonič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Aleksandra Petrovič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Lidija Čuček*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Pia Keršič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
14	**ENVIRONMENTAL ASSESSMENT OF BIOBASED PRODUCTS EXPOSED TO DIFFERENT pH CONDITIONS** *Majda Pavlin*, Slovenian National Building and Civil Engineering Institute (SI) *Sara Tominc*, Slovenian National Building and Civil Engineering Institute (SI) *Lisbeth M. Ottosen*, Technical University of Denmark (DK) *Guang Ye*, Delft University of Technology, Delft (NL) *Nina Štirmer*, University of Zagreb (HR) *Ivana Carević*, University of Zagreb (HR) *Tero Luukkonen*, University of Oulu (FI) *Vilma Ducman*, Slovenian National Building and Civil Engineering Institute (SI)
15	**POLYSACCHARIDE-FUNCTIONALIZED MAGNETIC NANOPARTICLES FOR THE REMOVAL OF STRATEGIC METALS FROM PRINTED CIRCUIT BOARDS** *Laura Furman*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Marjana Simonič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Sašo Gyergyek*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI), Jožef Stefan Institute (SI) *Lidija Fras Zemljič*, University of Maribor, Faculty of Mechanical Engineering (SI) *Olivija Plohl*, University of Maribor, Faculty of Mechanical Engineering (SI)

16	**INTEGRATING HIGH-FIDELITY PROCESS MODELS INTO CIRCULAR SUPPLY CHAIN SUPERSTRUCTURES VIA NEURAL NETWORKS** *Chiara Železnik*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Zdravko Kravanja*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Miloš Bogataj*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
17	**EMISSION FACTOR SENSITIVITY IN SPEND-BASED SCOPE 3 CARBON FOOTPRINT ASSESSMENT OF HOSPITALS** *Damjan Krajnc*, University of Maribor, Faculty of Chemistry and Chemical Engineering, Chamber of Commerce and Industry of Štajerska, (SI) *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)
18	**EXPIRED PUMPKIN SEED OIL AS A GREEN CO-ADDITIVE FOR COPPER CORROSION PROTECTION** *Regina Fuchs-Godec,* University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
19	**ASSESSMENT OF THERMAL DEGRADATION EFFECTS ON DIELECTRIC PERFORMANCE OF ELECTRICAL INSULATION MATERIALS** *Petra Krištof*, Milan Vidmar Electric Power Research Institute (SI) *Peter Osenčič*, Milan Vidmar Electric Power Research Institute (SI) *Aljaž Špelko*, Milan Vidmar Electric Power Research Institute (SI) *Barbara Horvat*, Milan Vidmar Electric Power Research Institute (SI)
20	**CASCADE VALORISATION OF SHREDDED WASTE ELECTRICAL CABLE INSULATION FOL LOWING INITIAL INCORPORATION INTO GEOPOLYMER COMPOSITES: A LIFE CYCLE ASSESSMENT WITH LONGEVITY AND LOOP FACTORS** *Barbara Horvat*, Milan Vidmar Electric Power Research Institute (SI)
21	**CONTINUOUS-FLOW SYNTHESIS OF CARBOXYMETHYL DEXTRAN-COATED MAGNETIC IRON OXIDE NANOPARTICLES IN A MODULAR MICROREACTOR** *Ana Mohor*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Olivija Plohl*, University of Maribor, Faculty of Mechanical Engineering (SI) *Sašo Gyergyek*, Institut Jožef Stefan, (SI) *Andreja Nemet*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
22	**MULTI-OBJECTIVE TECHNO-ECONOMIC ASSESSMENT OF ONSHORE WIND TURBINE CONFIGURATIONS UNDER UNCERTAINTY** *David Tian Hren*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Zorka novak Pintarič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Andreja Nemet*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
23	**SURROGATE NEURAL NETWORK MODELING OF BIOMASS INDIRECT GASIFICATION: PREDICTING SYNGAS COMPOSITION AND OPTIMIZING PROCESS CONDITIONS FOR RENEWABLE HEXAMINE SYNTHESIS** *Roberto Cifuentes García*, Universidad de Salamanca, Facultad de Ciencias Químicas (ES) *Mariano Martín*, Universidad de Salamanca, Facultad de Ciencias Químicas (ES) *Fernando Millán*, MAXAMCORP INTERNATIONAL (ES) *Unai Elizundia*, MAXAMCORP INTERNATIONAL (ES) *Luis Arturo Carranza*, MAXAMCORP INTERNATIONAL (ES) *Fernando Maria Beitia*, MAXAMCORP INTERNATIONAL (ES) *Jose Maria Castresana*, MAXAMCORP INTERNATIONAL (ES) *Mateusz Marek Hass*, MAXAMCORP INTERNATIONAL (ES)
24	**MAIZE COBS AS CIRCULAR BIO-RESOURCES: QUALITY AND END-OF-WASTE PERSPECTIVES** *Uroš Novak*, National Institute of Chemistry (SI) *Katja Makovšek*, National Institute of Chemistry (SI) *Blaž Likozar*, National Institute of Chemistry (SI)
25	**SUSTAINABLE AND INTELLIGENT: SHARPING THE FUTURE OF THE GLOBAL PACKAGING MARKET** *Mirica Karlovits*, National Institute of Chemistry (SI) *Blaž Likozar*, National Institute of Chemistry (SI) *Uroš Novak*, National Institute of Chemistry (SI)

26	**DEEP EUTECTIC SOLVENTS AS REACTION MEDIA FOR THE SOLVOTHERMAL SYNTHESIS OF COPPER-BASED METAL–ORGANIC FRAMEWORKS** *Patricija Završki*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Danijela Urbancl*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Silvo Hribernik*, University of Maribor, Faculty of Electrical Engineering and Computer Science (SI) *Muzafera Paljevac*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Darja Pečar*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Lidija Čuček*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Aleksandra Petrovič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)
27	**COMPARATIVE LIFE CYCLE ASSESSMENT OF FOSSIL-BASED METHANOL AND E-METHANOL PRODUCED USING CO_2 FROM DIFFERENT POINT SOURCES** *Tinkara Ošlovnik*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Matjaž Denac*, University of Maribor, Faculty of Economics and Business (SI) *Zorka Novak Pintarič*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI) *Lidija Čuček*, University of Maribor, Faculty of Chemistry and Chemical Engineering (SI)