

SLOVENSKI KEMIJSKI DNEVI 2024

18. - 20. SEPTEMBER 2024

PROGRAM PROGRAMME

30

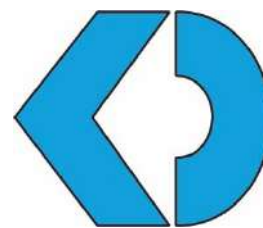
LET
YEARS

KONGRESNI CENTER
GRAND HOTELA
BERNARDIN, PORTOROŽ

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Slovensko kemijsko društvo
Slovenian Chemical Society



Konferenca »Slovenski kemijski dnevi 2024«, osrednji letni dogodek Slovenskega kemijskega društva, bo potekala od 18. do 20. septembra 2024 v kongresnem centru Grand hotela Bernardin v Portorožu.

The 30th Annual Meeting of the Slovenian Chemical Society will take place from 18-20 September 2024 at the Grand Hotel Bernardin Convention Center in Portorož-Portorose, Slovenia.

O konferenci

Konferenca »Slovenski kemijski dnevi 2024« (<https://skd2024.chem-soc.si/>) bo potekala kot tridnevni znanstveni dogodek, kjer bodo udeležencem na voljo plenarna in vabljenja predavanja, predavanja udeležencev in posterske predstavitve. Organizirano bo tudi tekmovanje za najboljše študentske znanstvene prispevke; nagrajenci bodo prejeli plakete in denarne nagrade. Nagrajene študentske prispevke bosta izbrali strokovni komisiji, ki bosta delo študentov, predstavljenih v obliki predavanj in posterjev, ocenili na podlagi kvalitete oddanih povzetkov in predstavitev. Konferenco bo spremljala tudi razstava najpomembnejših slovenskih proizvajalcev in ponudnikov laboratorijske ter procesne opreme.

Uradna jezika konference »Slovenski kemijski dnevi 2024« sta slovenščina in angleščina. Zaželeno je, da so prispevki udeležencev, zaradi vabljenih udeležencev iz tujine, pripravljeni in predstavljeni v angleškem jeziku. Simultano prevajanje predavanj ne bo zagotovljeno.

Udeleženci konference »Slovenski kemijski dnevi 2024« ste v sredo, 18. septembra 2024, ob 17:00 uri vljudno vabljeni na slovesnost, na kateri bodo podeljene nagrade za najboljša diplomska, magistrska in doktorska dela s področja trajnostne kemije v zadnjih dveh letih. Nagrajencem bodo vročene diplome in denarne nagrade, ki jih sponzorira podjetje AquafilSLO iz Ljubljane. Z veseljem vas obveščamo, da bomo na družabnem srečanju (sreda, 18. septembra 2024) podelili nagrade Slovenskega kemijskega društva.

About the meeting

The 30th Annual Meeting of the Slovenian Chemical Society (<https://skd2024.chem-soc.si/en/>) will be a three-day scientific event with plenary and keynote lectures, oral presentations and poster contributions. As an integral part of the conference, a student paper contest will also be organized; the winners will be awarded plaques and cash prizes. The best student papers (for both oral and poster presentations) will be selected by juries who will evaluate their work based on the oral and poster presentations and the quality of the abstracts submitted. The conference also includes the exhibition of the most important Slovenian manufacturers and suppliers of laboratory and process equipment.

The official languages of the 30th Annual Meeting of the Slovenian Chemical Society will be Slovenian and English. However, it is desirable that the contributions of the participants are prepared and presented in English due to the invited participants from abroad. No translation facilities will be provided.

Participants of the 30th Annual Meeting of the Slovenian Chemical Society are cordially invited to the award ceremony on Wednesday, 18 September 2024, at 17:00, where the awards for the best bachelor's, master's and doctoral theses in the field of sustainable chemistry from the past two years will be presented. The winners will receive diplomas and cash prizes sponsored by AquafilSLO from Ljubljana. We are pleased to inform you that we will present the awards of the Slovenian Chemical Society at the get-together party (Wednesday, 18 September 2024).

Organizacijski odbor / Organizing committee

znan. svet. dr. Albin Pintar (predsednik), prof. dr. Iztok Devetak, prof. dr. Jernej Iskra,
prof. dr. Darja Lisjak, doc. dr. Matic Lozinšek, prof. dr. Zorka Novak Pintarič, dr. Alenka Ristić,
prof. dr. Matjaž Valant, dr. Silvo Zupančič, Eva Mihalinec

Prizorišče dogodka

Konferenca »Slovenski kemijski dnevi 2024« bo potekala od 18. do 20. septembra 2024 v kongresnem centru Grand hotela Bernardin v Portorožu (<https://www.sava-hotels-resorts.com/sl/st-bernardin-resort-portoroz/>).

Venue

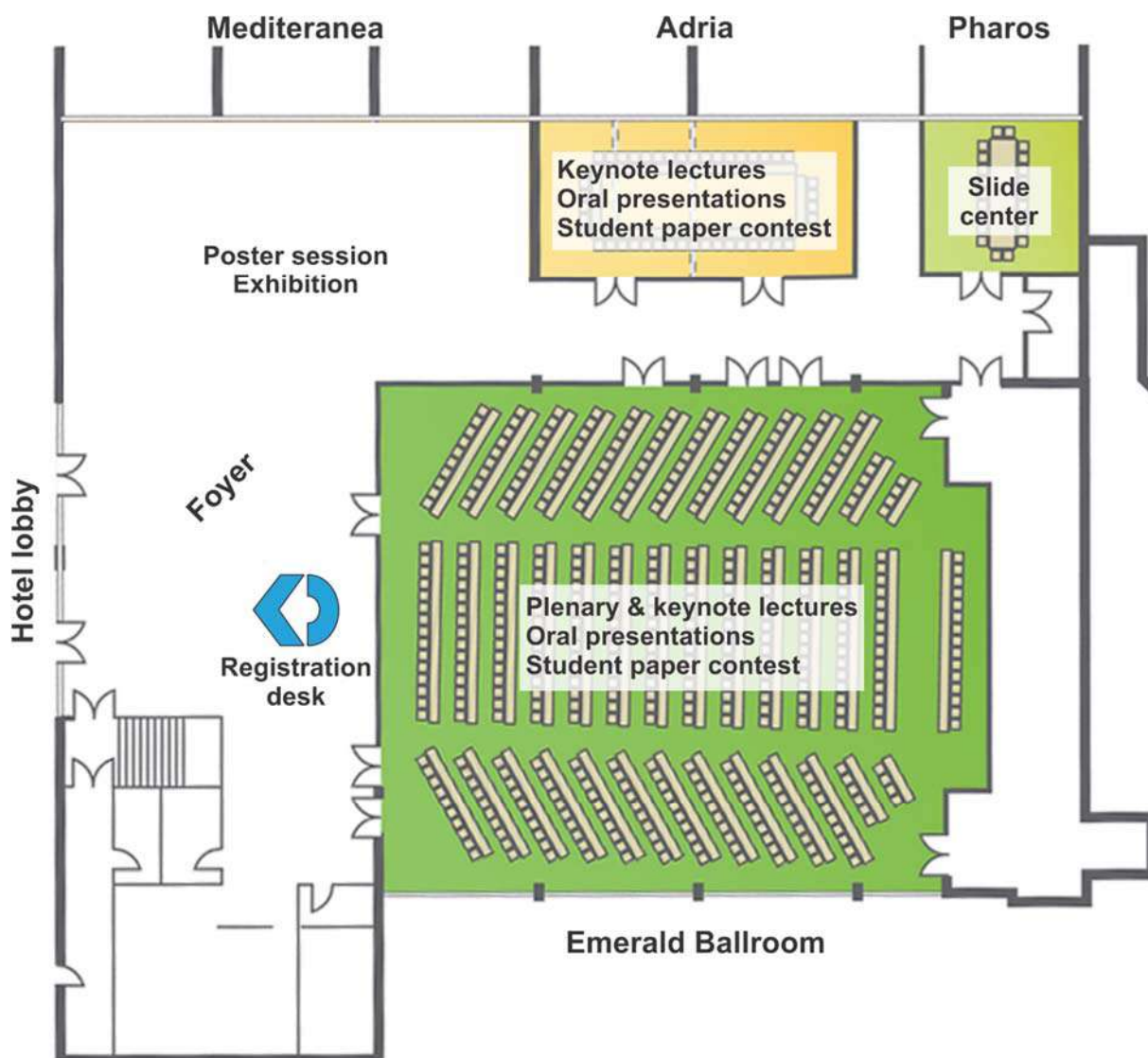
The 30th Annual Meeting of the Slovenian Chemical Society will take place from 18-20 September 2024 in the Grand Hotel Bernardin Convention Center, Portorož-Portorose, Slovenia (<https://www.sava-hotels-resorts.com/en/st-bernardin-resort-portoroz/>).

Naslov / Address

Grand Hotel Bernardin, Obala 2, SI-6320 Portorož-Portorose, Slovenia
Tel.: +386 5 695 10 00 | Fax: +386 5 674 64 15 | E-mail: booking@sava.si
GPS: E 13° 34' 9", N 45° 31' 1"

Prostorski načrt / Conference plan

Dvorana Emerald, 11. nadstropje / Emerald Ballroom, 11th floor





Udeleženci konference »Slovenski kemijski dnevi 2024« se bodo lahko udeležili predavanj in posterskih predstavitev v okviru mednarodne znanstvene konference »4th International Conference on Fundamentals and Applications of Cerium Dioxide in Catalysis (Ceria 2024)« (<https://ceria2024.chem-soc.si/>), ki bo potekala od 17. do 20. septembra 2024 v kongresnem centru Grand Hotel Bernardin.

Participants of the 30th Annual Meeting of the Slovenian Chemical Society can attend the scientific sessions of the »4th International Conference on Fundamentals and Applications of Cerium Dioxide in Catalysis (Ceria 2024)« (<https://ceria2024.chem-soc.si/>), which will be held in parallel at the Grand Hotel Bernardin Convention Center from 17-20 September 2024.



Če želite slediti programu konference »Slovenski kemijski dnevi 2024« na mobilnih napravah in si ustvariti svoj urnik spremljanja dogodka, vas vabimo, da uporabite mobilno aplikacijo »conference4me«, ki je na voljo brezplačno v trgovinah Google Play in AppStore.

To follow the programme of the »30th Annual Meeting of the Slovenian Chemical Society« on mobile devices and schedule your agenda, you are invited to use the »conference4me« mobile app available for free in stores Google Play and AppStore.

KRATEK PROGRAM / PROGRAMME AT A GLANCE

sreda, 18. september 2024 / Wednesday, 18 September 2024

12:00	Registracija s pijačo dobrodošlice Registration & welcome drink	
14:00	Otvoritev Opening	
14:10	PL 1 Z. Časar <i>Chair: A.E. Cotman</i>	
15:05	Kratek odmor - Short break	
15:10	<i>Chair: A.E. Cotman</i> O 1 I. Kulašić	<i>Chair: M. Fanetti</i> KL 1 U. Lavrenčič Štangar
	O 2 S. Damiani	
15:50	O 3 J. Dernovšek	O 5 Š. Slapničar
	O 4 Ž. Oražem	O 6 T. Kotnik
16:30	Odmor za kavo Coffee break	
17:00	Podelitev nagrad za najboljša študijska dela s področja trajnostne kemije Award ceremony for the best study work in the field of sustainable chemistry	
17:40	<i>Chair: H. Prosen</i> KL 2 M. Finšgar	<i>Chair: D. Lisjak</i> O 9 K. Motaln
		O 10 J. Tručl
18:20	O 7 B. Repič	O 11 J. Marčec
	O 8 E. Gričar	O 12 A. Siher
19:00	Prosto Free time	
20:00	Podelitev nagrad Slovenskega kemijskega društva in družabno srečanje Award ceremony of the Slovenian Chemical Society and get-together party	



četrtek, 19. september 2024 / Thursday, 19 September 2024

8:00	Registracija Registration	
8:30	PL 2 Y. Li <i>Chair: M. Valant</i>	
9:25	Kratek odmor - Short break	
9:30	<i>Chair: M. Valant</i> O 13 M. Fanetti	<i>Chair: V. Cepus</i> O 16 B. Herlah
	O 14 D. Lisjak	O 17 I. Džajić
	O 15 P. Weinberger	O 18 M. Rantaša
10:30	Odmor za kavo Coffee break	
11:00	<i>Chair: R.D. Jansen-van Vuuren</i> KL 3 L. Peterlin Mašič	<i>Chair: M. Leitgeb</i> O 23 A. Kravos
		O 24 A. Pavlovič
11:40	O 19 L. Jedlovčnik	O 25 T. Kralj
	O 20 J. Gregorc	O 26 M. Caf
	O 21 J. Mavri	O 27 Ž. Boček
	O 22 A. Zupanc	O 28 L. Godec
13:00	Odmor za kosilo Lunch break	
14:30	<i>Chair: M. Kristl</i> O 29 M. Lozinšek	<i>Chair: S. Zupančič</i> KL 4 R. Wollrab
	O 30 B. Belec	
15:10	O 31 M. Virant	O 35 N. Veronovski
	O 32 A. Mavrič	O 36 I. Shlyapnikov
	O 33 K. Radan	O 37 N. Vidmar
	O 34 M. Dragomir	O 38 V. Mislej
16:30	Poster sekcija z odmorom za kavo Poster session with coffee break	

četrtek, 19. september 2024 / Thursday, 19 September 2024

18:00	O 39 A.E. Cotman <i>Chair: J. Kladnik</i>	O 41 M. Huš <i>Chair: A. Kokalj</i>
	O 40 S. Nemeč	O 42 M. Gabrič
		O 43 T. Žibert
19:00	Prosto Free time	
20:00	Konferenčna večerja / Conference dinner	

PL – plenarno predavanje / plenary lecture (55 min)

KL – vabljeni predavanja / keynote lecture (40 min)

O – sekcijno predavanje / section lecture (20 min)

	Dvorana Emerald - posterji in razstavni prostor / Emerald Ballroom - Posters and Exhibition
	Dvorana Emerald 1 / Emerald Ballroom 1
	Dvorana Adria / Adria Hall
	Družabno srečanje / Get-together party - Grand Hotel Bernardin, Emerald Ballroom 2 (18. 9.)
	Konferenčna večerja / Conference dinner - Ploščad / Terrace International, ob hotelu Histrion / in front of Hotel Histrion (19. 9.)

petek, 20. september 2024 / Friday, 20 September 2024

8:30	<i>Chair: D. Pečar</i> O 44 M. Grilc	<i>Chair: I. Devetak</i> KL 5 S. Markič
	O 45 J. Teržan	
9:10	O 46 A. Sedminek	O 50 V. Ferk Savec
	O 47 B. Ljubec Božiček	O 51 L. Ribič
	O 48 E. Živalj	O 52 K. Stanič
	O 49 A. Zupanc	O 53 L. Praprotnik Čurič
10:30	Odmor za kavo Coffee break	
11:00	PL 3 E.J.M. Hensen <i>Chair: S. Bensaid</i>	
11:55	Kratek odmor - Short break	
12:00	<i>Chair: M. Dragomir</i> O 54 A. Siljanovska	<i>Chair: I. Devetak</i> O 57 T. Klemen
	O 55 K. Drobež	O 58 K. Mlinarec
	O 56 N. Bhootpur	O 59 L. Vinko
13:00	Odmor za kosilo Lunch break	
14:30	<i>Chair: P. Weinberger</i> KL 6 E. Vesselli	<i>Chair: A. Zupanc</i> O 62 G.G. Prinčič
		O 63 V. Cepus
15:10	O 60 A. Kokalj	O 64 R. Jansen-van Vuuren
	O 61 J. Volavšek	O 65 M. Huskič
15:50	Kratek odmor - Short break	
16:00	Podelitev študentskih nagrad in zaključek Student awards and closing remarks	

PROGRAM / PROGRAMME

sreda, 18. september 2024 / Wednesday, 18 September 2024

12:00 – 14:00	Registration & welcome drink Foyer of the Grand Hotel Bernardin Convention Center (11th floor)
14:00 – 14:10	Opening Emerald Ballroom 1 (11th floor)
14:10 – 15:10	Plenary session P1 Emerald Balroom 1 Chairperson: Andrej Emanuel Cotman
14:10 – 15:05	Plenary lecture (PL 1): Boron in the synthesis of active pharmaceutical ingredients <u>Zdenko Časar</u> ^{1,2} ¹ <i>Lek d.d., Ljubljana, Slovenia</i> ² <i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i>
15:05 – 15:10	Short break
15:10 – 16:30	Afternoon session A1 Emerald Balroom 1 Chairperson: Andrej Emanuel Cotman
15:10 – 15:30 SPC	Section lecture (O 1): Novel visible-light-induced transformations of pyrazolo[1,2-<i>a</i>]pyrazolones <u>Ines Kulašič</u> , Nejc Petek, Helena Brodnik, Jurij Svete, Uroš Grošelj, Bogdan Štefane <i>Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia</i>
15:30 – 15:50 SPC	Section lecture (O 2): A fragment-based approach to the design and synthesis of novel Tripanothione Reductase inhibitors for Leishmaniasis <u>Sara Damiani</u> ¹ , Alessandra Salerno ² , Elisa Uliassi ³ , Andrea Ilari ⁴ , Maria Laura Bolognesi ³ ¹ <i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i> ² <i>School of Life Sciences, University of Dundee, United Kingdom</i> ³ <i>Department of Pharmacy and Biotechnology, Alma Mater Studiorum—University of Bologna, Italy</i> ⁴ <i>Institute of Molecular Biology and Pathology (CNR), c/o Department of Biochemical Sciences, Sapienza University of Rome, Italy</i>
15:50 – 16:10 SPC	Section lecture (O 3): Triazolni C-končni zaviralci Hsp90: Od β-CF₃ benzilnih alkoholov do serije zaviralcev s protitumorom delovanjem <u>Jaka Dernovšek</u> ¹ , Nace Zidar ¹ , Živa Zajec ¹ , Tjaša Goričan ² , Simona Golič Grdadolnik ² , Caterina Sturtzel ³ , Sarah Grissenberger ³ , Martin Distel ³ , Andrej Emanuel Cotman ¹ , Tihomir Tomašič ¹ ¹ <i>Fakulteta za farmacijo, Univerza v Ljubljani, Slovenija</i> ² <i>Teoretični odsek, Kemijski inštitut, Ljubljana, Slovenija</i> ³ <i>St. Anna Children's Cancer Research Institute, Vienna, Austria</i>

16:10 – 16:30
SPC

**Section lecture (O 4):
Deuteration of selected heteroaromatic compounds using directed ortho-metalation approach**
Žiga Oražem, Ross D. Jansen-van Vuuren, Damijana Urankar, Janez Košmrlj
Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia

15:10 – 16:30 **Afternoon session B1** **Adria Hall**
Chairperson: Mattia Fanetti

15:10 – 15:50

**Keynote lecture (KL 1):
Photocatalytic surfaces for environmental applications**
Urška Lavrenčič Štangar¹, Andraž Šuligoj^{1,2}, Boštjan Žener¹, Lev Match¹, Ksenija Maver², Romana Cerc Korošec¹, Angelja Kjara Surca², Andrijana Sever Škapin³, Nataša Novak Tušar^{2,4}
¹*University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia*
²*National Institute of Chemistry, Ljubljana, Slovenia*
³*Slovenian National Building and Civil Engineering Institute, Ljubljana, Slovenia*
⁴*University of Nova Gorica, Slovenia*

15:50 – 16:10

**Section lecture (O 5):
Influence of preparation methods on the properties of Au+TiO₂ catalysts**
Špela Slapničar, Gregor Žerjav, Albin Pintar
Department of Inorganic Chemistry and Technology, National Institute of Chemistry, Ljubljana, Slovenia

16:10 – 16:30
SPC

**Section lecture (O 6):
Innovative π -conjugated networks and heterojunctions thereof for heterogeneous photocatalysis applications**
Tomaž Kotnik^{1,2}, Albin Pintar¹, Sebastijan Kovačič^{1,2}
¹*National Institute of Chemistry, Ljubljana, Slovenia*
²*Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia*

16:30 – 17:00 **Coffee break**

17:00 – 17:40 **Award ceremony for the best study work in the field of sustainable chemistry**
Emerald Ballroom 1

17:40 – 19:00 **Afternoon session A2** **Emerald Ballroom 1**
Chairperson: Helena Prosen

17:40 – 18:20

**Keynote lecture (KL 2):
Innovative solutions for analytical challenges using ToF-SIMS and XPS**
Matjaž Finšgar
University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia

18:20 – 18:40 SPC	<p>Section lecture (O 7): Electrochemical detection of imidacloprid with screen-printed carbon-based thick-film electrodes <u>Barbara Repič</u>^{1,2}, Maksimiljan Dekleva³, Helena Prosen³, Mitja Kolar³, Gregor Marolt³, Danjela Kuščer^{1,2} ¹<i>Jožef Stefan Institute, Electronic Ceramics Department, Ljubljana, Slovenia</i> ²<i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> ³<i>Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia</i></p>
18:40 – 19:00	<p>Section lecture (O 8): Effective electrochemical detection of hydrogen peroxide in alkaline media with flash graphene-based modified screen-printed electrodes <u>Emma Gričar</u>, Boštjan Genorio, Mitja Kolar <i>Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia</i></p>
17:40 – 19:00	<p>Afternoon session B2 Adria Hall Chairperson: Darja Lisjak</p>
17:40 – 18:00 SPC	<p>Section lecture (O 9): Crystal structures of fluoridopalladates(IV) explored by 3D electron diffraction <u>Klemen Motaln</u>^{1,2}, Kshitij Gurung³, Petr Brázda³, Lukáš Palatinus³, Matic Lozinšek^{1,2} ¹<i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ²<i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> ³<i>Institute of Physics, Academy of Sciences of the Czech Republic, Prague, Czech Republic</i></p>
18:00 – 18:20 SPC	<p>Section lecture (O 10): Ferrofluids of magnetic nanoplatelets stabilised with ricinoleic acids in nonpolar solvents <u>Jošt Tručl</u>^{1,2}, Peter Medle Rupnik³, Alenka Mertelj³, Darja Lisjak¹ ¹<i>Department for Materials Synthesis, Jožef Stefan Institute, Ljubljana, Slovenia</i> ²<i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> ³<i>Department of Complex Matter, Jožef Stefan Institute, Ljubljana, Slovenia</i></p>
18:20 – 18:40 SPC	<p>Section lecture (O 11): ZIF-90 and its composites as adsorption thermal battery materials <u>Jan Marčec</u>^{1,2}, Alenka Ristić¹, Nataša Zabukovec Logar^{1,2} ¹<i>National Institute of Chemistry, Ljubljana, Slovenia</i> ²<i>University of Nova Gorica, Slovenia</i></p>
18:40 – 19:00 SPC	<p>Section lecture (O 12): Morphological optimization of cobalt hydroxide for enhanced pseudocapacitive performance <u>Anja Siher</u>¹, Ksenija Maver^{2,3}, Iztok Arčon^{1,4}, Andraž Mavrič¹ ¹<i>University of Nova Gorica, Slovenia</i> ²<i>National Institute of Chemistry, Ljubljana, Slovenia</i> ³<i>University of Turin, Italy</i> ⁴<i>Jožef Stefan Institute, Ljubljana, Slovenia</i></p>

19:00 – 20:00 **Free time**

20:00 – 22:00 **Award ceremony of the Slovenian Chemical Society and
get-together party**
Grand Hotel Bernardin, Emerald Ballroom 2

Legend: SPC – Student paper contest

četrtek, 19. september 2024 / Thursday, 19 September 2024

8:00 – 8:30	Registration Foyer of the Grand Hotel Bernardin Convention Center (11th floor)	
8:30 – 9:30	Plenary session P2 Chairperson: Matjaž Valant	Emerald Ballroom 1
8:30 – 9:25	Plenary lecture (PL 2): Engineering Ta₃N₅ thin film photoanodes for efficient solar water splitting <u>Yanbo Li</u> <i>University of Electronic Science and Technology of China, Chengdu, China</i>	
9:25 – 9:30	Short break	
9:30 – 10:30	Morning session A3 Chairperson: Matjaž Valant	Emerald Ballroom 1
9:30 – 9:50	Section lecture (O 13): Instability at the interface between noble metals and Bi₂Se₃: The Pt case <u>Mattia Fanetti</u> , Sandra Gardonio, Matjaž Valant <i>Materials Research Laboratory, University of Nova Gorica, Slovenia</i>	
9:50 – 10:10	Section lecture (O 14): Hybridization of the barium hexaferrite nanoplatelets with phosphonic ligands via a condensation reaction <u>Darja Lisjak</u> ¹ , Ali Tufani ¹ , Janez Kovač ¹ , Alenka Mertelj ¹ , Ivan Jerman ² , Tomaš Landovsky ³ , Martin Cigl ³ , Vladimira Novotna ³ , Matic Poberžnik ^{4,1} , Gabriela Herrero Saboya ⁴ , Layla Martin Samos ⁴ ¹ <i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ² <i>National Institute of Chemistry, Ljubljana, Slovenia</i> ³ <i>Institute of Physics of the Czech Academy of Sciences, Prague, Czechia</i> ⁴ <i>CNR-IOM, Democritos National Simulation Center, Istituto Officina dei Materiali, c/o SiSSA, Trieste, Italy</i>	
10:10 – 10:30	Section lecture (O 15): High performance salt ammoniates as thermochemical energy storage materials Jakob Werner, Florian Selinger, Peter Ertl, <u>Peter Weinberger</u> <i>Institute of Applied Synthetic Chemistry, TU Wien, Austria</i>	

9:30 – 10:30	Morning session B3 Chairperson: Valentin Cepus	Adria Hall
9:30 – 9:50 SPC	Section lecture (O 16): Dynophore-derived discovery of nature-inspired substituted 3-(imidazol-2-yl) morpholines targeting topoisomerase IIα <u>Barbara Herlah</u> ^{1,2} , Matej Janežič ¹ , Iza Ogris ^{1,3} , Simona Golič Grdadolnik ¹ , Katja Kološa ⁴ , Sonja Žabkar ⁴ , Bojana Žegura ⁴ , Andrej Perdih ^{1,2} ¹ <i>National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i> ³ <i>University of Ljubljana, Faculty of Medicine, Slovenia</i> ⁴ <i>National institute of Biology, Department of Genetic Toxicology and Cancer Biology, Ljubljana, Slovenia</i>	
9:50 – 10:10 SPC	Section lecture (O 17): The good, the bad, the pretty and the ugly - Influence of quaternary nitrogen heterocycle substituent placement on delivery of covalently bound cargo to mitochondria <u>Ivan Džajić</u> , Natalija Trunkelj, Maša Kandušer, Andrej Emanuel Cotman, Lucija Peterlin Mašič <i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i>	
10:10 – 10:30 SPC	Section lecture (O 18): Chemical composition of e-liquids and their aerosols produced during inhalation <u>Matjaž Rantaša</u> , David Majer, Matjaž Finšgar <i>University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia</i>	
10:30 – 11:00	Coffee break	
11:00 – 13:00	Morning session A4 Chairperson: Ross David Jansen-van Vuuren	Emerald Ballroom 1
11:00 – 11:40	Keynote lecture (KL 3): New chemical solutions to tackle bacterial resistance and resistant cancer cells <u>Lucija Peterlin Mašič</u> <i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i>	
11:40 – 12:00 SPC	Section lecture (O 19): Directed ortho metalation-assisted deuteration of diazine derivatives <u>Luka Jedlovčnik</u> , Jernej Birk, Žiga Oražem, Ross Jansen-van Vuuren, Damijana Urankar, Janez Košmrlj <i>University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia</i>	

12:00 – 12:20 SPC	<p>Section lecture (O 20): Trifluoromethylthiolation of aromatic amino acids: Late-stage functionalization, modulation of hydrophobicity and selective post-oxidation <u>Jure Gregorc</u>^{1,2}, Nathalie Lensen², Gregory Chaume², Thierry Brigaud², Jernej Iskra¹ ¹<i>Chair of Organic Chemistry, Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia</i> ²<i>CY Cergy Paris Université, BioCIS, Cergy Pontoise, France & Université Paris-Saclay, CNRS, BioCIS, Orsay, France</i></p>
12:20 – 12:40	<p>Section lecture (O 21): Microkinetics of local anesthetics: Clinical observations explained by Smoluchowski equation <u>Janez Maveri</u>¹, Vladimir Smrkolj^{1,3}, Jakob Kralj¹, Hana Kavčič², Nejc Umek³, Neli Vintar^{1,2} ¹<i>National Institute of Chemistry, Ljubljana, Slovenia</i> ²<i>Clinical Department for Anesthesiology and Surgical Intensive Therapy of University Medical Center Ljubljana, Slovenia</i> ³<i>Institute of Anatomy, Faculty of Medicine, University of Ljubljana, Slovenia</i></p>
12:40 – 13:00	<p>Section lecture (O 22): Recycling of waste silver with recyclable waste carboxylic acids <u>Anže Zupanc</u>^{1,2}, Joseph Install¹, Timo Weckman³, Marianna Kemell¹, Karoliina Honkala³, Timo Repo¹ ¹<i>University of Helsinki, Finland</i> ²<i>University of Ljubljana, Slovenia</i> ³<i>University of Jyväskylä, Finland</i></p>
11:00 – 13:00	<p>Morning session B4 Adria Hall Chairperson: Maja Leitgeb</p>
11:00 – 11:20 SPC	<p>Section lecture (O 23): Occurrence of contaminants of emerging concern in Slovenian sea and its pertaining rivers <u>Aleksander Kravos</u>¹, Teja Rupnik¹, Martina Ivanova¹, Oliver Bajt², Helena Prosen¹ ¹<i>University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia</i> ²<i>National Institute of Biology, Marine Biology Station Piran, Slovenia</i></p>
11:20 – 11:40 SPC	<p>Section lecture (O 24): Aluminium presence can mitigate fluoride toxicity in macrophages <u>Anja Pavlovič</u>^{1,2}, Larisa Janžič³, Lucija Levstek³, Andreja Nataša Kopitar³, Maja Ponikvar-Svet¹ ¹<i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ²<i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> ³<i>Institute for Microbiology and Immunology, Faculty of Medicine, University of Ljubljana, Slovenia</i></p>

- 11:40 – 12:00
SPC
- Section lecture (O 25):
Potential of *Ganoderma lucidum* heteropolysaccharides for heavy metals removal from water solutions**
Tia Kralj¹, Gregor Marolt¹, Miha Slapničar^{1,2}, Andrej Gregori^{1,3}
¹*University of Ljubljana, Slovenia*
²*BIC Ljubljana, Slovenia*
³*MycoMedica Ltd., Kranjska Gora, Slovenia*
- 12:00 – 12:20
SPC
- Section lecture (O 26):
Quaternary-amines functionalized anisotropic magnetic nanoparticles for non-selective biofilm removal**
Maja Caf^{1,2}, Nika Zaveršek¹, Manca Černila¹, Stane Pajk², Parvaneh Esmailnejad-Ahranjani¹, Aleš Berlec^{1,2}, Jerica Sabotič¹, Slavko Kralj^{1,2}
¹*Jožef Stefan Institute, Ljubljana, Slovenia*
²*Faculty of Pharmacy, University of Ljubljana, Slovenia*
- 12:20 – 12:40
SPC
- Section lecture (O 27):
Degradation of Reactive Red 120 with hydrogen peroxide and hydrodynamic cavitation**
Žan Boček¹, Matevž Dular¹, Martin Petkovšek¹, Alenka Šmid², Andraž Zupanc¹, Mojca Zupanc¹
¹*Faculty of Mechanical Engineering, University of Ljubljana, Slovenia*
²*Faculty of Pharmacy, University of Ljubljana, Slovenia*
- 12:40 – 13:00
SPC
- Section lecture (O 28):
Determination of heavy metals in various food products and beverages available on the Slovenian market**
Eva Erjavec, Gaja Kolšek, Lučka Godec, Matjaž Rantaša, David Majer, Matjaž Finšgar
University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia

13:00 – 14:30 **Lunch break**

14:30 – 16:30 **Afternoon session A5** **Emerald Ballroom 1**
Chairperson: Matjaž Kristl

- 14:30 – 14:50
- Section lecture (O 29):
Crystal structures of reactive air-sensitive compounds by 3D electron diffraction on nm-sized crystallites**
Matic Lozinšek^{1,2}, Klemen Motaln^{1,2}, Kshitij Gurung³, Petr Brázda³, Kristian Radan¹, Mirela Dragomir^{1,2}, Lukaš Palatinus³
¹*Jožef Stefan Institute, Ljubljana, Slovenia*
²*Jožef Stefan International Postgraduate School, Ljubljana, Slovenia*
³*Institute of Physics of the Czech Academy of Sciences, Prague, Czech Republic*

- 14:50 – 15:10
- Section lecture (O 30):
Synthesis and optical properties of Cr-doped Bi₂Se₃ topological insulator nanoplatelets**
Blaž Belec, Thanveere Thajudeen, Mattia Fanetti, Sandra Gardonio, Matjaž Valant
Materials Research Laboratory, University of Nova Gorica, Slovenia

- 15:10 – 15:30 **Section lecture (O 31):**
Charge-density study of the pancake-bonded tetracyanoethylene radical anion dimer
Miha Virant¹, Petar Štrbac², Anna Krawczuk³, Valentina Milašinović^{1,3},
 Petra Stanić², Matic Lozinšek¹, Krešimir Molčanov²
¹*Jožef Stefan Institute, Ljubljana, Slovenia*
²*Ruđer Bošković Institute, Zagreb, Croatia*
³*University of Göttingen, Germany*
- 15:30 – 15:50 **Section lecture (O 32):**
Metal oxide interlayers for improved efficiency of solar energy conversion devices
Andraž Mavrič¹, Nadiia Pastukhova², Yanbo Li³
¹*Materials Research Laboratory, University of Nova Gorica, Slovenia*
²*Laboratory of Organic Matter Physics, University of Nova Gorica, Slovenia*
³*Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China, Chengdu, China*
- 15:50 – 16:10 **Section lecture (O 33):**
Synthesis and structural investigation of the Xe–O-bonded cation [H₂NC(F)OXeF]⁺
Kristian Radan, Valentina Milašinović, Miha Virant, Matic Lozinšek
Jožef Stefan Institute, Ljubljana, Slovenia
- 16:10 – 16:30 **Section lecture (O 34):**
Expanding the chemistry of silver(II) using mechanochemistry
Mirela Dragomir^{1,2}, Matic Belak Vivod^{1,2}, Matic Lozinšek^{1,2}
¹*Jožef Stefan Institute, Ljubljana, Slovenia*
²*Jožef Stefan International Postgraduate School, Ljubljana, Slovenia*
- 14:30 – 16:30 Afternoon session B5 Adria Hall**
Chairperson: Silvo Zupančič
- 14:30 – 15:10 **Keynote lecture (KL 4):**
Sustainable transformation in the paint and coating industry: Kansai Helios' story
Radmila Wollrab
Kansai Helios Services, Domžale, Slovenia
- 15:10 – 15:30 **Section lecture (O 35):**
Pigment quality as a function of controlled process conditions
Nika Veronovski, Dušanka Košir
Cinkarna Celje, d.d., Slovenia
- 15:30 – 15:50 **Section lecture (O 36):**
e-CODUCT – fast-response electrically heated reactor technology for simultaneous H₂S and CO₂ reduction
Igor Shlyapnikov¹, David Bajec², Matic Grom², Miha Grilc^{1,2}, Blaž Likozar²
¹*Center of Excellence for Low Carbon Technologies, Ljubljana, Slovenia;*
²*National Institute of Chemistry, Ljubljana, Slovenia*

15:50 – 16:10	<p>Section lecture (O 37): Bio-based ACE coatings, energy saving and sustainable coating solutions from Kansai Helios <u>Nejc Vidmar</u>, Miha Steinbücher, Nataša Čuk, Martin Ocepek, Ema Potočnik, Peter Venturini <i>KANSAI HELIOS Slovenija d.o.o., Domžale, Slovenia</i></p>
16:10 – 16:30	<p>Section lecture (O 38): Integrating municipal treatment plant operation, river quality, and circular economy: The critical role of municipal infrastructure management <u>Vesna Mislej</u>^{1,2,3}, Veronika Plut^{2,3}, Jan Hočevar^{2,3}, Sara Trabelsi⁴, Ines Baznik¹, Mojca Vrbančič¹, Ester Heath^{2,4,5}, Jurij Trontelj⁶, Sašo Petan⁷ ¹<i>JP VODOVOD KANALIZACIJA SNAGA d.o.o., Ljubljana, Slovenia</i> ²<i>Slovenian Chemical Society, Section for the Environment, Ljubljana, Slovenia</i> ³<i>University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia</i> ⁴<i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> ⁵<i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ⁶<i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i> ⁷<i>Republic of Slovenia, Slovenian Environmental Agency, Ljubljana, Slovenia</i></p>
16:30 – 18:00	Poster session with coffee break
18:00 – 19:00	<p>Afternoon session A6 Emerald Ballroom 1 Chairperson: Jerneja Kladnik</p>
18:00 – 18:20	<p>Section lecture (O 39): Trifluoromethyl as carbonyl bioisostere: Synthetic challenges and applications <u>Andrej Emanuel Cotman</u>, Maša Sterle, Boštjan Adamlje, Lora Gržin, Manca Hribar, Sara Damiani <i>University of Ljubljana, Faculty of Pharmacy, Slovenia</i></p>
18:20 – 18:40	<p>Section lecture (O 40): Synthesis of multifunctional magnetic lipid nanocarriers for enhanced cell delivery and induction of ferroptosis <u>Sebastjan Nemec</u>¹, Eva Jarc Jovičič², Mateja Erdani Kreft³, Slavko Kralj^{1,4}, Toni Petan², Darko Makovec¹ ¹<i>Department for Materials Synthesis, Jožef Stefan Institute, Ljubljana, Slovenia</i> ²<i>Department for Molecular and Biomedical Sciences, Jožef Stefan Institute, Ljubljana, Slovenia</i> ³<i>Institute of Cell Biology, Faculty of Medicine, University of Ljubljana, Slovenia</i> ⁴<i>Department for Pharmaceutical Technology, Faculty of Pharmacy, University of Ljubljana, Slovenia</i></p>

18:00 – 19:00	Afternoon session B6 Chairperson: Anton Kokalj	Adria Hall
18:00 – 18:20	Section lecture (O 41): What's the matter? Entropy matters <u>Matej Huš</u> ^{1,2} , Jurij Golobič ¹ , Andraž Pavličič ¹ , Ana Oberlintner ¹ , Miha Grilc ¹ , Anders Hellman ² , Blaž Likozar ¹ ¹ <i>National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>Chalmers tekniska högskola, Gothenburg, Sweden</i>	
18:20 – 18:40	Section lecture (O 42): Impact of catalyst support on rhenium-catalyzed deoxydehydration of aldaric acid to adipic acid <u>Maja Gabrič</u> ^{1,3} , Florian Maximilian Harth ¹ , Janvit Teržan ^{1,2} , Brigita Hočevar ¹ , Sašo Gyergyek ² , Miha Grilc ^{1,3} , Blaž Likozar ¹ ¹ <i>Department of Catalysis and Chemical Reaction Engineering, National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>Department for Materials Synthesis, Jožef Stefan Institute, Ljubljana, Slovenia</i> ³ <i>University of Nova Gorica, Slovenia</i>	
18:40 – 19:00	Section lecture (O 43): A first-principles based multi-scale model of photocatalytic ammonia synthesis <u>Taja Žibert</u> ^{1,2} , Matej Huš ^{1,2} , Blaž Likozar ¹ ¹ <i>National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>University of Nova Gorica, Slovenia</i>	
19:00 – 20:00	Free time	
20:00 – 23:59	Conference dinner Terrace International (in front of the Hotel Histrion)	

Legend: SPC – Student paper contest

petek, 20. september 2024 / Friday, 20 September 2024

8:30 – 10:30	Morning session A7 Chairperson: Darja Pečar	Emerald Ballroom 1
8:30 – 8:50	Section lecture (O 44): Magnetically heated catalysis: It's hot and it's cold <u>Miha Grilc</u> ¹ , Jakov-Stjepan Pavelić ¹ , Janvit Teržan ^{1,2} , Darko Makovec ² , Blaž Likozar ¹ , Sašo Gyergyek ² ¹ <i>Department of Catalysis and Chemical Reaction Engineering, National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>Department for Synthesis of Materials, Jožef Stefan Institute, Ljubljana, Slovenia</i>	
8:50 – 9:10	Section lecture (O 45): Fuelling the final frontier: Magnetically heated CO₂ reduction reactors <u>Janvit Teržan</u> ¹ , Anej Blažič ¹ , Anja Sedminek ² , Žan Kovačič ¹ , David Bajec ¹ , Miha Grilc ¹ , Andraž Teržan ¹ , Sašo Gyergyek ² , Blaž Likozar ¹ ¹ <i>National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>Jožef Stefan Institute, Ljubljana, Slovenia</i>	
9:10 – 9:30 SPC	Section lecture (O 46): Electrified dynamically responsive ammonia synthesis by magnetic heating of barium promoted Ru catalyst <u>Anja Sedminek</u> ^{1,2} , Žiga Ponikvar ^{1,2} , Darko Makovec ¹ , Janvit Teržan ³ , Anže Prašnikar ³ , Blaž Likozar ³ , Sašo Gyergyek ¹ ¹ <i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ² <i>Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia</i> ³ <i>National Institute of Chemistry, Ljubljana, Slovenia</i>	
9:30 – 9:50 SPC	Section lecture (O 47): Novel synthesis and electrocatalytic application of (CoFeNiMnCr)₃O₄ high-entropy oxide <u>Barbara Ljubec Božiček</u> ^{1,2} , Jitka Hreščak ¹ , Monika Kušter ^{1,2} , Janez Kovač ¹ , Iztok Naglič ³ , Boštjan Markoli ³ , Barbara Šetina Batič ⁴ , Martin Šala ⁵ , Živa Marinko ¹ , Miran Čeh ¹ , Belisa Alcantara Marinho ¹ ¹ <i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ² <i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i> ³ <i>Faculty of Natural Sciences and Engineering, University of Ljubljana, Slovenia</i> ⁴ <i>Institute of Metals and Technology, Ljubljana, Slovenia</i> ⁵ <i>National Institute of Chemistry, Ljubljana, Slovenia</i>	
9:50 – 10:10 SPC	Section lecture (O 48): Decomposition of chlorine(I) oxospecies: A key step in converting Cl₂ to HCl <u>Edin Živalj</u> , Matjaž Valant <i>University of Nova Gorica, Slovenia</i>	

10:10 – 10:30
SPC

Section lecture (O 49):
Utilizing hydrodynamic cavitation for chitosan depolymerization
Andraž Zupanc¹, Filipa Vicente², Žan Boček¹, Jernej Ortar¹, Žak Sovec¹,
Blaž Stres², Alenka Šmid³, Mojca Zupanc¹, Ema Žagar², Martin Petkovšek¹
¹*Faculty of Mechanical Engineering, University of Ljubljana, Slovenia*
²*National Institute of Chemistry, Ljubljana, Slovenia*
³*Faculty of Pharmacy, University of Ljubljana, Slovenia*

8:30 – 10:30 **Morning session B7** **Adria Hall**
Chairperson: Iztok Devetak

8:30 – 9:10

Keynote lecture (KL 5):
Influence of university level education on future chemistry teachers
Silvija Markić
Ludwig Maximilian University of Munich, Germany

9:10 – 9:30

Section lecture (O 50):
Kompetence za pospeševanje trajnostnih preobrazb in zelena kemija v izobraževanju
Vesna Ferik Savec, Katarina Mlinarec
Univerza v Ljubljani, Pedagoška fakulteta, Slovenija

9:30 – 9:50

Section lecture (O 51):
Slovenian lower secondary school students' understanding of problems related to microplastic
Luka Ribič, Iztok Devetak
University of Ljubljana, Faculty of Education, Slovenia

9:50 – 10:10
SPC

Section lecture (O 52):
Branje in risanje grafov pri kemiji: Kakšni so izzivi za dijake?
Janja Majer, Katja Stanič
Univerza v Mariboru, Fakulteta za naravoslovje in matematiko, Slovenija

10:10 – 10:30
SPC

Section lecture (O 53):
Ninth graders' perceptions about climate change
Luka Praprotnik Čurič¹, Irena Hergan¹, Miha Slapničar^{1,2}
¹*University of Ljubljana, Faculty of Education, Slovenia*
²*BEC Ljubljana, Slovenia*

10:30 – 11:00 **Coffee break and poster viewing**

11:00 – 12:00 **Plenary session P3** **Emerald Ballroom 1**
Chairperson: Samir Bensaid

11:00 – 11:55

Plenary lecture (PL 3):
Catalysis at interfaces: Atom-efficient metal/CeO₂ catalysts based on single atoms and clusters
Emiel J.M. Hensen
Department of Chemical Engineering and Chemistry, Eindhoven University of Technology, The Netherlands

11:55 – 12:00 **Short break**

12:00 – 13:00	Morning session A8 Chairperson: Mirela Dragomir	Emerald Ballroom 1
12:00 – 12:20 SPC	Section lecture (O 54): Cocrystals of triphenylarsine oxide with small molecule hydrogen-bond donors <u>Ana Siljanovska</u> ¹ , Miha Virant ² , Krešimir Molčanov ³ , Matic Lozinšek ² , Janez Cerkovnik ¹ ¹ <i>Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia</i> ² <i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ³ <i>Department of Physical Chemistry, Rudjer Bošković Institute, Zagreb, Croatia</i>	
12:20 – 12:40 SPC	Section lecture (O 55): The effect of catechol structure on the functionalization of barium hexaferrite nanoplatelets <u>Katja Drobež</u> ^{1,2} , Darja Lisjak ¹ ¹ <i>Jožef Stefan Institute, Ljubljana, Slovenia</i> ² <i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i>	
12:40 – 13:00 SPC	Section lecture (O 56): <i>In situ</i> graphitisation of cellulose nanofibers in ceramic matrices during the rapid radiation sintering <u>Nikhil Bhootpur</u> ^{1,2} , Andraž Kocjan ¹ ¹ <i>Department for Nanostructured Materials, Jožef Stefan Institute, Ljubljana, Slovenia</i> ² <i>Jožef Stefan International Postgraduate School, Ljubljana, Slovenia</i>	
12:00 – 13:00	Morning session B8 Chairperson: Iztok Devetak	Adria Hall
12:00 – 12:20	Section lecture (O 57): Možnosti razvoja ključnih kompetenc za pospeševanje trajnostnih preobrazb v okviru kemijskega izobraževanja v srednji šoli <u>Taja Klemen</u> , Katarina Mlinarec, Špela Hrast, Vesna Ferč Savec <i>Univerza v Ljubljani, Pedagoška fakulteta, Slovenija</i>	
12:20 – 12:40	Section lecture (O 58): Možnosti razvoja ključnih kompetenc za pospeševanje trajnostnih preobrazb v okviru kemijskega izobraževanja v osnovni šoli <u>Katarina Mlinarec</u> , Taja Klemen, Špela Hrast, Vesna Ferč Savec <i>Univerza v Ljubljani, Pedagoška fakulteta, Slovenija</i>	
12:40 – 13:00	Section lecture (O 59): Innovative approaches to teaching hydrosphere pollution: Impact on pre-service chemistry teachers' environmental literacy <u>Luka Vinko</u> ¹ , Mojca Bavcon Kralj ² , Iztok Devetak ¹ ¹ <i>University of Ljubljana, Faculty of Education, Slovenia</i> ² <i>University of Ljubljana, Faculty of Health Sciences, Slovenia</i>	
13:00 – 14:30	Lunch break	

14:30 – 15:50	Afternoon session A9 Chairperson: Peter Weinberger	Emerald Ballroom 1
14:30 – 15:10	Keynote lecture (KL 6): Ligation and molecular activation at 2D functional materials: Surface science and biomimetics <u>Erik Vesselli</u> <i>Department of Physics, University of Trieste, Italy</i>	
15:10 – 15:30	Section lecture (O 60): Considering the concept of synergism in (corrosion) chemistry <u>Anton Kokalj</u> <i>Jožef Stefan Institute, Ljubljana, Slovenia</i>	
15:30 – 15:50	Section lecture (O 61): Analysis of structural disorder in water adsorbing microporous AlPO₄-LTA <u>Janez Volavšek</u> ¹ , Suzana Mal ¹ , Matjaž Mazaj ¹ , Alenka Ristić ¹ , Anže Hubman ¹ , Franci Merzel ¹ , Nataša Zabukovec Logar ^{1,2} , Andraž Krajnc ¹ ¹ <i>National Institute of Chemistry, Ljubljana, Slovenia</i> ² <i>University of Nova Gorica, Slovenia</i>	
14:30 – 15:50	Afternoon session B9 Chairperson: Anže Zupanc	Adria Hall
14:30 – 14:50	Section lecture (O 62): Advanced reagents for nucleophilic fluorination of organic compounds <u>Griša Grigorij Prinčič</u> ¹ , Blaž Omahen ¹ , Jan Jelen ² , Evelin Gruden ² , Gašper Tavčar ² , Jernej Iskra ¹ ¹ <i>Faculty of Chemistry and Chemical Technology, University of Ljubljana,</i> <i>Slovenia</i> ² <i>Jožef Stefan Institute, Ljubljana, Slovenia</i>	
14:50 – 15:10	Section lecture (O 63): Composition of input material for chemical recycling as determined with NIR spectroscopy and multivariate calibration <u>Valentin Cepus</u> ¹ , Ankur Abhijeet Bhide ² ¹ <i>University of Applied Sciences Merseburg, Germany</i> ² <i>Martin Luther University Halle-Wittenberg, Halle, Germany</i>	
15:10 – 15:30	Section lecture (O 64): Polymers of intrinsic microporosity containing [2.2]paracyclophane moieties Anže Zupanc ^{1,2} , Marjan Jereb ² , Mariolino Carta ³ , Stefan Bräse ⁴ , <u>Ross Jansen-van Vuuren</u> ² ¹ <i>Department of Chemistry, University of Helsinki, Finland</i> ² <i>Faculty of Chemistry and Chemical Technology, University of Ljubljana,</i> <i>Slovenia</i> ³ <i>Faculty of Science and Engineering, Swansea University, United Kingdom</i> ⁴ <i>Institute of Biological and Chemical Systems - Functional Molecular</i> <i>Systems, Karlsruhe Institute of Technology, Germany</i>	

15:30 – 15:50	Section lecture (O 65): Phenol/5-HMF resin <u>Miroslav Huskić</u> ^{1,2} , Vesna Žepič-Bogataj ² , Edita Jasiukaityte Grojzdek ³ , Irena Pulko ¹ ¹ <i>Faculty of Polymer Technology, Slovenj Gradec, Slovenia</i> ² <i>TECOS, Celje, Slovenia</i> ³ <i>National Institute of Chemistry, Ljubljana, Slovenia</i>
15:50 – 16:00	Short break
16:00 – 16:30	Student awards and closing remarks Emerall Ballroom 1

Legend: SPC – Student paper contest



POSTERSKE PREDSTAVITVE / POSTER SESSION

Foyer of the Grand Hotel Bernardin Convention Center (11th floor) - **Posters and exhibition**

Thursday, 19 September 2024, 16:30 – 18:00

- P001**
SPC
Bioconjugation and covalent binding of native proteins using azide-alkyne cycloaddition
Nadja Suhorepec, Luka Ciber, Uroš Grošelj, Bogdan Štefane, Marko Novinec, Jurij Svete
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P002**
SPC
Dialkyl phthalates as synthetic analogs of isobenzofuran-1,3-diones: Synthesis and further transformations
Dominik Fendre, Krištof Kranjc
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P003**
SPC
Oxidation and subsequent functionalization of N-trifluoromethylthio sulfoximines
Žan Testen, Marjan Jereb
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P004**
SPC
Synthesis of acryloyl substituted biaryls
Anita Zupanc, Bogdan Štefane
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P005**
SPC
Lignin oxidation reactions and synthesis of lignin-derived nitro aromatic platform molecules
Jan Hočevar, Jernej Iskra
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P006**
SPC
Usage of lignin from invasive Fallopia japonica to synthesize luminescent nanomaterials
Jan Hočevar¹, Griša Grigorij Prinčič¹, Karolina Elźbieciak-Piecka², Lukasz Marciniak², Jernej Iskra¹, Jelena Papan Djaniš^{1,3}
¹*Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia*
²*Institute of Low Temperature and Structural Research, Polish Academy of Sciences, Wrocław, Poland*
³*Vinča Institute of Nuclear Sciences, National Institute of the Republic of Serbia, University of Belgrade, Serbia*
- P007**
SPC
Stereodivergentna sinteza fluoriranih aminopiperidonov kot mimetikov aminoglutarimida
Boštjan Adamlje, Manca Hribar, Andrej Emanuel Cotman
Univerza v Ljubljani, Fakulteta za farmacijo, Slovenija

- P008**
SPC
Poly(arylene iminophosphorane)s via the azide-phosphine Staudinger reaction: Redefined synthesis conditions
Tomaž Kotnik^{1,2}, Antoine Debuigne³, Julien De Winter⁴, Matej Huš¹, Albin Pintar¹, Sebastijan Kovačič^{1,2}
¹National Institute of Chemistry, Ljubljana, Slovenia
²Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia
³Center for Education and Research on Macromolecules, Chemistry Department, University of Liege, Belgium
⁴Organic Synthesis and Mass Spectrometry Laboratory, University of Mons, Belgium
- P009**
SPC
Synthesis of N-vinylcaprolactam-co-N,N-dimethylacrylamide polyHIPES using oil-in-oil systems
Špela Podgrajšek¹, Sebastijan Kovačič^{2,3}, Janja Majer Kovačič¹
¹Faculty of Natural Sciences and Mathematics, University of Maribor, Slovenia
²Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia
³National Institute of Chemistry, Ljubljana, Slovenia
- P010**
SPC
The influence of Hop (*Humulus Lupulus*) on the micellization of cationic surfactants with a quaternary alkyl-ammonium head
Tjaša Skarlovnik¹, Urban Bren^{1,2,3}, Gregor Hostnik¹
¹University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia
²University of Primorska, Faculty of Mathematics, Natural Sciences and Information Technologies, Koper, Slovenia
³Institute for Environmental Protection and Sensors, Maribor, Slovenia
- P011**
SPC
Tailoring NOD2 agonists: Minor structural alterations uncover diverse immune signatures
Špela Janež¹, Eveline A. de Vlieger², Bram Slütter², Žiga Jakopin¹
¹Faculty of Pharmacy, University of Ljubljana, Slovenia
²Div. BioTherapeutics, Leiden Academic Centre for Drug Research, Leiden University, The Netherlands
- P012**
SPC
Optimized novel bacterial topoisomerase inhibitors exhibit preserved potency and reduced toxicity in zebrafish model
Maša Zorman^{1,2}, Nikola Minovski¹, Marko Anderluh², Irena Zdovc³, Lidija Šenerović⁴, Nataša Radaković⁴, Martina Hrast Rambaher²
¹Theory Department, Laboratory for Cheminformatics, National Institute of Chemistry, Ljubljana, Slovenia
²Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Ljubljana, Slovenia
³Institute of Microbiology and Parasitology, Veterinary Faculty, University of Ljubljana, Slovenia
⁴Laboratory for Microbial Molecular Genetics and Ecology, Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Serbia
- P013**
SPC
Measurement of cell viability and antioxidant properties of extracts from Himalayan Balsam (*Impatiens glandulifera* Royle) on human endothelial cell line EA.hy926
Marcel Žafran^{1,2}, Ana Gajić³, Lovro Žiberna³, Alen Albreht¹
¹National Institute of Chemistry, Department of Analytical Chemistry, Laboratory for Food Chemistry, Ljubljana, Slovenia
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- P014**
SPC
Evaluation of antiproliferative activity of heat shock protein 90 inhibitors in breast cancer and Ewing sarcoma cell lines
Natalija Trunkelj, Dunja Urbančič, Jaka Dernovšek, Tihomir Tomašič
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- P015**
SPC
Development of first-in-class TAK1 PROTACs for targeted cancer therapy
Nika Strašek Benedik, Martina Gobec, Izidor Sosič
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- P016**
SPC
Functionalized nanocellulose hybrids with antibacterial activity
Kaja Kupnik^{1,2}, Mateja Primožič¹, Vanja Kokol², Željko Knez^{1,3}, Maja Leitgeb^{1,3}
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- P017**
SPC
Reduction of hexavalent chromium in contaminated soils by microorganisms
Miroslav Štrbac^{1,2}, Radmila Milačič^{1,2}, Tomaž Rijavec^{1,2}, Aleš Lapanje^{1,2}, Janez Ščančar^{1,2}
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- P018**
SPC
Computational prediction of drug induced liver injury: A comparative study
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- P019**
SPC
Korozijske lastnosti cirkonija v umetni slini s simulacijo vnetnih procesov
Nensy Kláčinski, Janja Stergar, Mojca Slemnik
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- P020**
SPC
Študija korozije cirkonija v umetni slini z dodatkom organskih in ortofosforne kisline
Laura Kobe Stožinič, Matjaž Kristl, Mojca Slemnik
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- P021**
SPC
Advanced corrosion protection of AA2024-T3 using siloxane-silica sol-gel coating
Peter Rodič, Manca Mursa, Nina Kovač, Barbara Kapun, Ingrid Milošev
Jožef Stefan Institute, Ljubljana, Slovenia
- P022**
SPC
Explicit-water molecular dynamics study of 3,3- and 6,6-ionene solutions with Br⁻ and F⁻ counter-ions: Influence of ion-specific effects on structural properties
Dimitra Škrekovski¹, Sandi Brudar², Barbara Hribar-Lee²
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- P023**
SPC
Adapting rose water model to analytical model
Peter Ogrin, Tomaž Urbič
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia

- P024**
SPC
Towards simplified and green analysis of pharmaceuticals by dispersive micro solid-phase extraction (DMSPE)
Aleksander Kravos, Martina Mileva, Helena Prosen
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P025**
SPC
The change in the isotopic composition of carbon in volatile organic compounds during storage
Leja Jelenko¹, Lidija Strojnik², Irena Kralj Cigić¹, Nives Ogrinc^{2,3}
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- P026**
SPC
Determination of hexavalent chromium in mineral materials by HPLC-ICP-MS after hot alkaline extraction
Miroslav Štrbac^{1,2}, Janez Ščančar^{1,2}, Radmila Milačič^{1,2}
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- P027**
SPC
Analog and digital hardware in electrochemical sensing and their effects
Abhilash Krishnamurthy^{1,2}, Kristina Žagar Soderžnik^{1,2}
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- P028**
SPC
Chemistry of the cyanogen–[XeF][AsF₆] system
Erik Uran^{1,2}, Kristian Radan¹, Miha Virant¹, Mirela Dragomir^{1,2}, Matic Lozinšek^{1,2}
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- P029**
SPC
Coordination of malononitrile to [XeF]⁺ cation
Olha Sanko^{1,2}, Erik Uran^{1,2}, Kristian Radan¹, Matic Lozinšek^{1,2}
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- P030**
SPC
Identical location scanning electron microscopy (IL-SEM)
Blaž Tomc¹, Nejc Hodnik^{1,2}, Marjan Bele¹
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²*University of Nova Gorica, Slovenia*
- P031**
SPC
Comparison between the effects of conventional and magnetic heating on the hydrodeoxygenation kinetics of furfural
Jakov-Stjepan Pavelić¹, Anja Sedminek², Žiga Ponikvar², Andraž Kocjan³, Darko Makovec², Blaž Likozar¹, Sašo Gyergyek², Miha Grilc¹
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- P032**
SPC
Methanation with magnetic heating
Anej Blažič¹, Janvit Teržan¹, Anja Sedminek², Žan Kovačič¹, David Bajec¹, Sašo Gyergyek², Blaž Likozar¹
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- P033**
SPC
Induction-heated catalytic decomposition of methane
Sergey Girshevich, Janvit Teržan, Stanislav Yakushkin, Anej Blažič, David Bajec, Blaž Likozar
National Institute of Chemistry, Ljubljana, Slovenia
- P034**
SPC
Deactivation of zinc oxide photocatalyst from photocatalytic degradation of antibiotics
Miha Ravbar^{1,2}
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- P035**
SPC
Tehnike termične analize pri preučevanju termičnih lastnosti PCM-parafinov kot energetske učinkovite dodatke gradbenim materialom
Martina Potočnik, Jaša Hrovat, Aljaž Renko, Niko Kučič, Tina Skalar, Nataša Čelan Korošič
Univerza v Ljubljani, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija
- P036**
SPC
Insights into break-in of proton exchange membrane fuel cells
Mitja Kostelec^{1,2}, Matija Gatalo^{1,3}, Nejc Hodnik^{1,2}
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²*University of Nova Gorica, Slovenia*
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- P037**
SPC
Separation of gold and copper from ethanol leachates
Benjamin Poljanc¹, Anže Zupanc^{1,2}, Uroš Rapuš¹, Aleksi Eronen², Kjell Knapas², Marianna Kemell², Iztok Turel¹, Timo Repo²
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- P038**
Synthesis and characterization of novel FDDNP analogues for amyloid β detection
Matic Rogan¹, Jerneja Kladnik¹, Luka Rejc¹, Damijan Knez², Gabriela Molina-Aguirre³, Alba Espargaró⁴, Anže Meden², Lana Blinc⁵, Matic Lozinšek⁶, Ross Jansen-van Vuuren¹, Bruno Martek¹, Jernej Mlakar⁷, Ana Dremelj¹, Damijana Urankar¹, Andrej Petrič¹, Stanislav Gobec², Raimon Sabaté⁴, Mara Bresjanac⁵, Balazs Pinter³, Janez Košmrlj¹
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⁶*Jožef Stefan Institute, Ljubljana, Slovenia*
⁷*Faculty of Medicine, Institute of Pathology, University of Ljubljana, Slovenia*

- P039 Design and synthesis of novel fluorescent dyes for amyloid β plaque detection**
Jerneja Kladnik¹, Luka Rejc¹, Damijan Knez², Gabriela Molina-Aguirre³, Alba Espargaró⁴, Anže Meden², Lana Blinc⁵, Matic Lozinšek⁶, Ross D. Jansen-van Vuuren¹, Matic Rogan¹, Bruno Aleksander Martek¹, Jernej Mlakar⁷, Ana Dremelj¹, Andrej Petrič¹, Stanislav Gobec², Raimon Sabaté⁴, Mara Bresjanac⁵, Balazs Pinter³, Janez Košmrlj¹
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⁶Jožef Stefan Institute, Ljubljana, Slovenia
⁷Institute of Pathology, Faculty of Medicine, University of Ljubljana, Slovenia
- P040 Catalytic photoredox sulfenylation of 4-oxo-4H-pyrido[1,2-a]pyrimidine-3-diazonium tetrafluoroborates**
Manca Jurajevčič, Uroš Grošelj, Nejc Petek, Bogdan Štefane, Jurij Svete
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P041 Alternative synthesis of activated sterically hindered aromatic compounds**
Martin Podlipec, Marjan Jereb
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P042 Multicatalysis: Sonogashira cross-coupling in tandem with transfer hydrogenation**
Dominik Jankovič, Janez Košmrlj, Martin Gazvoda
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P043 Synthesis of maleimide type noncovalent bifunctional catalysts**
Luka Ciber, Bogdan Štefane, Jurij Svete, Uroš Grošelj
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P044 Synthesis and spectral study of methyl-derivative hydrazones**
Boryana Ivanova Nikolova-Mladenova, Orlin Rumenov Mladenov
Medical University of Sofia, Bulgaria
- P045 Molecular properties of cinnamaldehyde hydrazones**
Boryana Ivanova Nikolova-Mladenova
Medical University of Sofia, Bulgaria
- P046 Synthesis of proton channel HV1 inhibitors based on 2-aminoimidazole scaffold**
Zala Kulovec, Martina Piga, Nace Zidar, Tihomir Tomašič
University of Ljubljana, Faculty of Pharmacy, Slovenia
- P047 In vitro antioxidant activity of Merlot grape skin extract from the Šumadija region**
Edina Avdović¹, Marko Antonijevič¹, Dušica Simijonović¹, Dejan Milenković¹, Sandra Jovičić Milić¹, Jovana Bradić², Zoran Marković³
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³Department of Natural Science and Mathematics, State University of Novi Pazar, Serbia

- P048** **Reactive force field parametrisation for silica-ammonia description**
Matic Pavlin, Matej Huš, Blaž Likozar
National Institute of Chemistry, Ljubljana, Slovenia
- P049** **Evaluation of the pharmacological and toxicological properties of fullerene nanostructures using machine learning and cheminformatics tools**
Natalja Fjodorova¹, Marjana Novič¹, Katja Venko¹, Bakhtiyor Rasulev²
¹*National Institute of Chemistry, Ljubljana, Slovenia*
²*North Dakota State University, Fargo (ND), USA*
- P050** **Študija agregacije proteinov z uporabo metod in silico**
Katja Venko
Kemijski inštitut, Ljubljana, Slovenija
- P051** **Understanding NLP cytolysin mechanisms: All-atom simulations of pore formation in plant cell membranes**
Sofia Cresca¹, Alessandra Magistrato², Jure Borišek¹
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²*CNR-IOM at SISSA, Trieste, Italy*
- P052** **Detection of various surfactants in wastewater and their possible contamination of glassy carbon using EIS**
Tim Vončina¹, Urša Tiringner^{1,2}, Gijs Vermeij², Martin Rozman¹, Miha Lukšič¹
¹*University of Ljubljana, Slovenia*
²*Hypersoniq water BV, Delft, The Netherlands*
- P053** **Residual methyl methacrylate monomer determination in dental acrylic resin**
Borut Šraj¹, Anja Šraj², Lovro Lesjak², Drago Kočar³, Mitja Kolar³
¹*University of Zagreb, School of Dental Medicine, Croatia*
²*Interdent d.o.o., Celje, Slovenia*
³*Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia*
- P054** **Innovative antibiotic quantification using Python in UV-VIS spectroscopy**
Erik Mihelič¹, Marjana Simonič¹, Lidija Fras Zemljič², Olivija Plohl²
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²*University of Maribor, Faculty of Mechanical Engineering, Slovenia*
- P055** **The fate of potentially toxic elements in the Wulka River catchment (Austria)**
Nuša Erjavec¹, Janez Ščančar^{1,2}, Katarina Markovič², Radmila Milačič^{1,2}
¹*Jožef Stefan International Postgraduate School, Ljubljana, Slovenia*
²*Jožef Stefan Institute, Ljubljana, Slovenia*
- P056** **Impact of light, temperature and relative humidity on iron gall inks, logwood inks, and their mixtures on paper**
Klara Retko^{1,2}, Lea Legan¹, Ida Kraševc², Polonca Ropret^{1,2}
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²*University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia*
- P057** **New method of scientific experiments by ejecting a ballistic canister from an UL aircraft**
Martin Rozman, Miha Lukšič
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia

- P058** **New contrasting agents and methods in 3D X-ray microtomography**
Luka Škrlep, Lidija Korat Bensa, Rožle Repič
Slovenian National Building and Civil Engineering Institute, Ljubljana, Slovenia
- P059** **Analysis of terpenes in spruce needles from Kranjska Gora, Slovenia**
Arneta Kuzma², Sonja Šostar Turk¹, Urška Rozman¹, Boštjan Križanec²,
Marjana Simonič³, Jerneja Lešnik Cotza⁴
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³*University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia*
⁴*Vocational College for Hospitality and Tourism Maribor, Slovenia*
- P060** **Electrochemical sensors for detection of benzotriazole in water**
Neža Sodnik¹, Melanija Hadolin², Zoran Samardžija¹, Kristina Žagar Soderžnik^{1,3}
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²*University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia*
³*Jožef Stefan International Postgraduate School, Ljubljana, Slovenia*
- P061** **4-alil-2-metoksi fenol kot zeleni inhibitor korozije bakra**
Regina Fuchs-Godec¹, Marija Riđošić², Milorad Tomić²
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- P062** **Vanillin methacrylate as a precursor for the synthesis of porous polymer materials**
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- P063** **Thermal stability of graphene oxide**
Tadej Slatinek¹, Irena Pulko¹, Dejan Kepić², Svetlana Jovanović Vučetić²,
Miroslav Huskić¹
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- P064** **Separation of magnesium from dolomite with different extraction methods**
Jernej Imperl¹, Domen Lavriha¹, Mitja Kolar¹, Gorazd Žibret², Vilma Ducman³,
Lea Žibret³
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- P065** **Chemical reactions in flux and their issues**
Petra Šutar¹, Tomaž Mertelj^{1,2}, Evgeny Goreshnik¹, Yelyzaveta Chernolevska¹,
Dragan Mihailović^{1,2,3}
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- P066 Porous alumina and titania with well-defined morphology from composite polyHIPE precursors**
Amadeja Koler, Peter Krajnc
University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia
- P067 Synthesis of water composites for solar thermochemical energy storage**
Suzana Mal¹, Zala Žagar², Jakob Smith³, Anton Larchier³, Jan Marčec^{1,4},
Alenka Ristić¹, Peter Weinberger³, Nataša Zabukovec Logar^{1,4}
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³*Institute of Applied Synthetic Chemistry, TU Wien, Vienna, Austria*
⁴*University of Nova Gorica, Slovenia*
- P068 Preparation of magnetic ceramic composite honeycombs for magnetic heating applications**
Sašo Gyergyek¹, Andraž Kocjan¹, Gernot Fauland², Roland Nilica², Georg Kogler²,
Darko Makovec¹
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- P069 Micro-nonuniform heating in field-assisted sintering of multiphase metallic microstructures**
Tomaž Tomše¹, Sašo Šturm^{1,2}, Kristina Žužek^{1,2}
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- P070 Termične lastnosti fazno spremenljivih materialov**
Urška Rustan, Tina Skalar
Univerza v Ljubljani, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija
- P071 Ultrasonic dyeing of fabrics with Reynoutria japonica leaf and rhizome extracts**
Dragana {Rade} Grujić¹, Aleksandar Savić¹, Ljiljana Topalić-Trivunović¹,
Blanka Škipina¹, Branka Ružičić¹, Biljana Pećanin¹, Teodora Bojović¹, Mitja Kolar²
¹*University of Banja Luka, Faculty of Technology, Bosnia and Herzegovina*
²*University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia*
- P072 Advancing lignin valorization by exploring functionalized low molecular weight lignin for epoxy resin preparation**
Rok Pogorevc^{1,2}, Edita Jasiukaitytė-Grojzdek¹, Tina Ročnik Kozmelj¹, Miha Grilc¹,
Blaž Likozar^{1,2}
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- P073 Catalytic ring-opening oxidation of lignin-like aromatics**
Vojtěch Škopek^{1,2}, Edita Jasiukaitytė-Grojzdek¹, Blaž Likozar¹
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²*Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia*
- P074 Goniochromatic assessment of printed silica based multi-color effect pigments on packaging foils**
Mirica Karlovits, Blaž Likozar, Uroš Novak
National Institute of Chemistry, Ljubljana, Slovenia

- P075** **Uporabnost magnetnih nanodelcev za odstranjevanje mikro- in nanoplastike iz vode - pregled**
Janja Stergar, Matjaž Kristl, Irena Ban, Sabina Vohl
Univerza v Mariboru, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija
- P076** **Transforming wool and feather waste into valuable resources by subcritical water extraction of amino acids**
Sara Uskoković¹, Maja Čolnik¹, Anja Vehar^{2,3}, Nives Ogrinc^{2,3}, Mojca Škerget¹
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³*Jožef Stefan International Postgraduate School, Ljubljana, Slovenia*
- P077** **Functionalization of textiles using hydrolyzed waste eggshell in the subcritical water**
Lidija Tušek¹, Rosvita Pliberšek², Selestina Gorgieva², Lidija Fras Zemljič², Maja Čolnik³, Mojca Škerget³
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²*University of Maribor, Faculty of Mechanical Engineering, Slovenia*
³*University of Maribor, Faculty of Chemistry and Chemical Engineering, Slovenia*
- P078** **Magnetic hysteresis heating and CFD in fluid reactor with monolith**
Andraž Pavličič¹, Sašo Gyergyek²
¹*National Institute of Chemistry, Ljubljana, Slovenia*
²*Jožef Stefan Institute, Ljubljana, Slovenia*
- P079** **Density functional theory study of ethanol synthesis from CO₂ hydrogenation on Cu-MFI**
Chaomin Chen^{1,2}, Matej Huš^{1,2}, Blaž Likozar¹
¹*National Institute of Chemistry, Ljubljana, Slovenia*
²*University of Nova Gorica, Slovenia*
- P080** **Biofunctionalized liposomes as advanced nanocarriers for cosmetic applications**
Nika Kučuk¹, Mateja Primožič¹, Željko Knez^{1,2}, Maja Leitgeb^{1,2}
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²*University of Maribor, Faculty of Medicine, Slovenia*
- P081** **Stabilization of bioactive substances from Helichrysum italicum for cosmetic purposes**
Nika Kučuk¹, Mateja Primožič¹, Željko Knez^{1,2}, Maja Leitgeb^{1,2}
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²*University of Maribor, Faculty of Medicine, Slovenia*
- P082** **Functionalized metal-organic frameworks for antibiotic degradation**
Katja Vasić¹, Željko Knez^{1,2}, Maja Leitgeb^{1,2}
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²*University of Maribor, Faculty of Medicine, Slovenia*
- P083** **Separation of enzymes and immobilization of obtained fungal laccase from self-cultivated mushrooms**
Pia Keršič¹, Katja Vasić¹, Mateja Primožič¹, Željko Knez^{1,2}, Maja Leitgeb^{1,2}
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- P084** **Characterization of raw xanthan produced from biodiesel industry effluent**
Azra Osmić¹, Maša Knez Marevci¹, Željko Knez¹, Sebastijan Kovačič¹,
Katja Andrina Kravanja¹, Ida Zahovič², Jelena Dodić², Zorana Trivunović²,
Matjaž Finšgar¹
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²University of Novi Sad, Faculty of Technology, Serbia
- P085** **Soil and in vitro enzymatic degradation of biocomposite films based on alginate and chitosan**
Miša Mojca Cajnko¹, Ana Oberlintner¹, Uroš Novak¹, Blaž Stres^{1,2,3,4,5}
¹National Institute of Chemistry, Ljubljana, Slovenia
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³Faculty of Mechanical Engineering, University of Ljubljana, Slovenia
⁴Biotechnical Faculty, University of Ljubljana, Slovenia
⁵Jožef Stefan Institute, Ljubljana, Slovenia
- P086** **Direct electrochemical conversion of CO₂ to ethylene via key CO intermediates on Cu electrocatalysts: A mechanistic first principles approach**
Reza Gholizadeh, Blaž Likozar, Matej Huš
Department of Catalysis and Chemical Reaction Engineering, National Institute of Chemistry, Ljubljana, Slovenia
- P087** **Influence of 0.25 % indium addition to Ni/CeO₂ catalysts for dry reforming of methane**
Anita Horváth¹, Andrea Beck¹, Miklós Németh¹, György Sáfrán²,
Matevž Roškarič³, Gregor Žerjav³, Albin Pintar³
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²Thin Film Physics Department, Centre for Energy Research, Budapest, Hungary
³Department of Inorganic Chemistry and Technology, National Institute of Chemistry, Ljubljana, Slovenia
- P088** **Impregnacija grafen oksida za uporabo pri kataliziranih reakcijah**
Tjaša Cmager, Darja Pečar, Andreja Goršek
Univerza v Mariboru, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija
- P089** **Sinteza in karakterizacija katalizatorjev na osnovi mezoporozne silike**
Katarina Zavrl, Darja Pečar, Andreja Goršek
Univerza v Mariboru, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija
- P090** **Synthesis and photocatalytic activity of bismuth-based compounds**
Metka Založnik, Praveen Kumar, Boštjan Žener, Urška Lavrenčič Štangar
University of Ljubljana, Faculty of Chemistry and Chemical Technology, Slovenia
- P091** **Recycling of carbon-based anode materials through hydrogasification**
Stanislav Yakushkin, Blaž Likozar, Riccardo Muolo
National Institute of Chemistry, Ljubljana, Slovenia

- P092** **Preparation of alternative alkali activators: Comparison of hydrothermal and microwave digestion methods**
Majda Pavlin¹, Kaja Zupančič²
¹*Slovenian National Building and Civil Engineering Institute, Ljubljana, Slovenia*
²*Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia*
- P093** **Plasma-induced hydrophobization of nanocellulose membranes: A synergistic approach combining experiments and theory**
Ana Oberlintner¹, Vasyl Shvalya², Blaž Likozar¹, Matej Huš^{1,3,4}
¹*Department of Catalysis and Chemical Reaction Engineering, National Institute of Chemistry, Ljubljana, Slovenia*
²*Department of Gaseous Electronics, Institute Jožef Stefan, Ljubljana, Slovenia*
³*Association for Technical Culture of Slovenia, Ljubljana, Slovenia*
⁴*Institute for the Protection of Cultural Heritage of Slovenia, Ljubljana, Slovenia*
- P094** **Imobilizacija encimov na nanostrukturirane funkcionalne materiale za razgradnjo plastike**
Tjaša Cmager, Anže Pegan, Julija Ribarič, Saša Sitar, Katja Vasić, Mateja Primožič
Univerza v Mariboru, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija
- P095** **Biodegradability of lignin-based coatings**
Mateja Zajc, Janja Juhant Grkman, Gregor Lavrič
Pulp and Paper Institute, Ljubljana, Slovenia
- P096** **Recycling of Rare-Earths (RE) magnets out of white goods and other home appliances**
Benjamin Podmiljšak¹, Tomaž Tomše¹, Damir Huremović², Boris Saje^{1,3}, Laura Naomi Grau⁴, Carlo Burkhardt⁴, Emil Šehić⁵, Spomenka Kobe¹
¹*Jožef Stefan Institute, Ljubljana, Slovenia*
²*Surovina d.o.o., Maribor, Slovenia*
³*Kolektor d.o.o., Idrija, Slovenia*
⁴*Pforzheim University, Germany*
⁵*ZEOS d.o.o., Ljubljana, Slovenia*
- P097** **Razumevanje prostornine - izziv za dijake**
Kaja Bračič, Janja Majer Kovačič
Univerza v Mariboru, Fakulteta za naravoslovje in matematiko, Slovenija
- P098** **Interdisciplinarno sodelovanje za STEAM izobraževanje: Priložnosti za učitelje kemije in likovne pedagogike**
Janja Majer, Aljaž Čelofiga
Univerza v Mariboru, Fakulteta za naravoslovje in matematiko, Slovenija
- P099** **Augmented reality for stimulating learning of chemistry triplet**
Luka Ribič¹, Klen Čopič Pucihar², Matjaž Kljun², Miha Slapničar¹, Luka Vinko¹, Maheshya Weerasinghe², Iztok Devetak¹
¹*University of Ljubljana, Faculty of Education, Slovenia*
²*University of Primorska, Faculty of Mathematics, Natural Sciences and Information Technologies, Koper, Slovenia*

P100 Pravilnost odgovorov in omejitve prosto dostopnega orodja ChatGPT v slovenščini na primerih okoljske problematike

Irena Kralj Cigić, Teja Balaško, Nika Guzelj, Lina Lengar, Jaka Levstek, Gregor Pirnat, Larissa Stepanova, Lea Šarić, Jana Štenkler, Kimberly Zihlerl, Helena Prosen

Univerza v Ljubljani, Fakulteta za kemijo in kemijsko tehnologijo, Slovenija

P101 Comparison of performance in chemistry tasks in the 2021/2022 national examinations and before the coronavirus epidemic

Tomi Vavdi¹, Iztok Devetak², Miha Slapničar^{2,3}

¹*School Center Celje, Grammar School Lava, Slovenia*

²*University of Ljubljana, Faculty of Education, Slovenia*

³*BEC Ljubljana, General Upper Secondary School and Veterinary Technician School, Slovenia*

Legend: SPC – Student paper contest

KONGRESNI CENTER
GRAND HOTELA
BERNARDIN, PORTOROŽ

SLOVENSKI
KEMIJSKI DNEVI 2024



E-POSTRI | E-POSTERS



Slovensko kemijsko društvo
Slovenian Chemical Society

Družabna dogodka / Social events



Družabno srečanje / Get-together party

sreda, 18. september 2024 / Wednesday, 18 September 2024 • 20:00-22:00

V znamenju dobrodošlice za udeležence konference »Slovenski kemijski dnevi 2024« pripravljamo neformalno druženje v dvorani Emerald v kongresnem centru Grand hotela Bernardin. Med druženjem boste lahko uživali ob izbrani pijači in prigrizkih. Udeležba na družabnem srečanju je vključena v kotizacijo. Na začetku večernega dogodka bomo podelili nagrade Slovenskega kemijskega društva.

To welcome the participants of the 30th Annual Meeting of the Slovenian Chemical Society, an informal gathering will be held in the Emerald Ballroom of the Grand Hotel Bernardin Convention Center. During the evening you will enjoy a selection of drinks and a finger food buffet. The get-together party is included in the registration fee. At the beginning of the evening event, we will present awards from the Slovenian Chemical Society.

Konferenčna večerja / Conference dinner

četrtek, 19. september 2024 / Thursday, 19 September 2024 • 20:00-23:59

Konferenčno večerjo, ki je vključena v kotizacijo, pripravljamo na ploščadi International ob hotelu Histron. Menu zajema aperitiv in bogato pogostitev z regionalnimi jedmi ter odličnimi slovenskimi vini. Za glasbo in zabavo bo poskrbljeno.

The conference dinner, which will take place at the Terrace International of the St. Bernardin Adriatic Resort and Convention Center, is included in the registration fee. The fee covers an aperitif followed by a regional meal accompanied by excellent Slovenian wines. An entertainment programme will also be offered.

Splošne informacije

Parkirišče

Za udeležence konference bo v Grand hotelu Bernardin na voljo brezplačno zunanje parkirišče.

Identifikacijske kartice

Vse udeležence vljudno naprošamo, da v času konference nosijo svoje identifikacijske kartice. V primeru izgubljene kartice bo pri registracijskem pultu na voljo nova.

Dostop do interneta

Brezžični dostop do omrežja na celotnem prizorišču konference je na voljo brezplačno. Ker lahko dostop do W-LAN uporabljajo vsi obiskovalci, je možna zmanjšana učinkovitost dostopa.

Jezik

Vsa predavanja bodo potekala v angleščini in/ali slovenščini. Simultanega prevoda ne bo.

Odmori za kavo

Kava, čaj in osvežilne pijače bodo postrežene v preddverju kongresnega centra. Odmori za kavo so vključeni v kotizacijo.

Kosilo

Med odmoroma za kosilo vam bodo v restavracijah Grand hotela Bernardin postregli z raznolikim menijem. Kosilo ni vključeno v kotizacijo.

Fotografiranje

Uporaba fotoaparata, video kamer in kamer mobilnih naprav v času predavanj in med postersko sekcijo ni dovoljena.

Kajenje

Kajenje v kongresnem centru ni dovoljeno. Vljudno vas naprošamo, da kadite samo na določenih območjih za kajenje.

Taksi

V primeru, da potrebujete taksi prevoz, vam bo osebje v recepciji Grand hotela Bernardin z veseljem pomagalo.

Zavarovanje

Organizator konference ni odgovoren za kakršnokoli poškodbo udeležencev, škodo, tatvino ali izgubo osebnih stvari. Udeleženci morajo sami poskrbeti za zavarovanje.

Nujni klici

Policija	113
Reševalna / gasilska enota	112

General information

Currency

The official currency in Slovenia is EURO (€). Major credit cards (MasterCard/Eurocard, Visa, Diners and American Express) are accepted in hotels, department stores and restaurants.

Cash dispensers

Cash dispensers are available in all banks. ATMs are also available in the lobby of the Grand Hotel Bernardin (11th floor), in Hotel Histron and in the shopping street in St. Bernardin Resort.

Electricity

Power supply is 230 V AC, 50 Hz. It is recommended to have a suitable plug-in for Slovenian standard (i.e. EU plug types C and F).

Parking

Free outdoor parking area will be provided for the conference participants.

Name badges

All participants are kindly requested to wear their name badges throughout the conference. In case you lost your badge, a new one will be available at the registration desk.

Internet access

W-LAN access throughout the conference venue is available free of charge. As the W-LAN access can be used by all visitors, a loss of efficiency is possible.

Conference language

All sessions will be held in English and/or Slovene. There will be no simultaneous translation.

Coffee breaks

Coffee, tea and refreshments will be served in the exhibition and poster area and are included in the registration fee.

Lunch

Various meals will be served during the lunch breaks in the restaurants of Grand Hotel Bernardin at your own expense.

Photography

The use of cameras, video cameras and cellphone photography is prohibited during program sessions or in the poster exhibition.

Smoking

Smoking is prohibited inside the venue. You are kindly requested to smoke within the designated smoking areas only.

Taxi

In case you need a taxi, the front desk staff of Grand Hotel Bernardin will be glad to assist you.

Insurance

The organizer may not be held responsible for any injury to participants' damage, theft and loss of personal belongings. Participants should therefore make their own insurance arrangements.

Emergency services

Police call	113
Ambulance / Fire brigade	112

Sponzorji / Sponsors

Zlati sponzorji / Gold sponsors



Srebrni sponzorji / Silver sponsors



Sponzor nagrad za najboljša študentska predavanja / Sponsor of the best student presentation awards



Organizacijski odbor se zahvaljuje sponzorjem za podporo.
The organizing committee would like to thank the sponsors for their support.

Razstavljalci / Exhibitors



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POSTANE
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30

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YEARS



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Slovenian Chemical Society

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NANOPHOTON

RAMANSKA MIKROSKOPIJA NAJVIŠJE KAKOVOSTI

- Analiza delcev tudi do 100 nm
- Konfokalna Raman spektroskopija – tudi 3D zmogljivosti
- Ramansko slikanje največje hitrosti (zajem 400 spektrov hkrati) – brez emCCD!
- Premikanje laserskega žarka, ne vzorca, za najmanj napak in vibracij
- UV in DUV laserji
- Popolna avtomatizacija strojne opreme
- Avtomatska kalibracija in avtomatska poravnava



MIRO ANALYTICAL

ANALIZA PLINOV S TEHNOLOGIJO QCL

- Merjenje izotopov dušika v N_2O
- Merjenje več plinov hkrati, tudi v kompleksnih mešanicah
- Zelo občutljivi in natančni, tudi do 5 ppt
- Hitre meritve, do 10 meritev na sekundo
- Popolni analizatorji za nadzor nad kakovostjo zraka



TORNADO

PROCESNI RAMANSKI SISTEMI VISOKE OBČUTLJIVOSTI

- Tehnologija HTVS (high throughput virtual screening) zagotavlja:
 - Izredno visoko občutljivost
 - Hitrejše zajemanje spektrov
 - Uporabo nižje moči laserja za enako intenziteto signala
- Kontaktna in brezkontaktna sonda, izdelane točno za vaš namen
- Multiplexer omogoča 8 različnih sond na istem instrumentu
- Mogoča analiza tudi v EX območju



BEAM

BREZKONTAKTNI PROCESNI FT-NIR ANALIZATOR

- Namestitev direktno na mesto merjenja, brez optičnih kablov
- Merjenje na razdalji 10 ali 20 cm
- Cenovno ugodna rešitev za eno merilno mesto
- Dokazano stabilna tehnologija

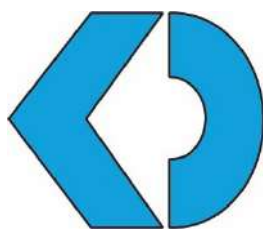


PEAK SCIENTIFIC

GENERATORJI PLINOV VISOKE ČISTOSTI (N_2 , H_2 , ZRAKA BREZ OGLJIKOVODIKOV)

- Zmanjšana nevarnost za operaterje (puščanje jeklen, ipd.)
- Hitra povrnitev investicije
- Možnosti za različne pretoke, čistosti in tlake





Kontakt / Contact

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