



international conference

19. Ružička days

TODAY SCIENCE – TOMORROW INDUSTRY
September 21–23, 2022 | Vukovar, Croatia



Program
Programme

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8. SUSRET MLADIH KEMIČARA

21. rujna 2022., VUKOVAR, HRVATSKA



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Europsko kemijsko društvo | *European Chemical Society (EuChemS)*
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Mrežna stranica konferencije | *Conference web-site*

<http://www.ruzickadays.eu>

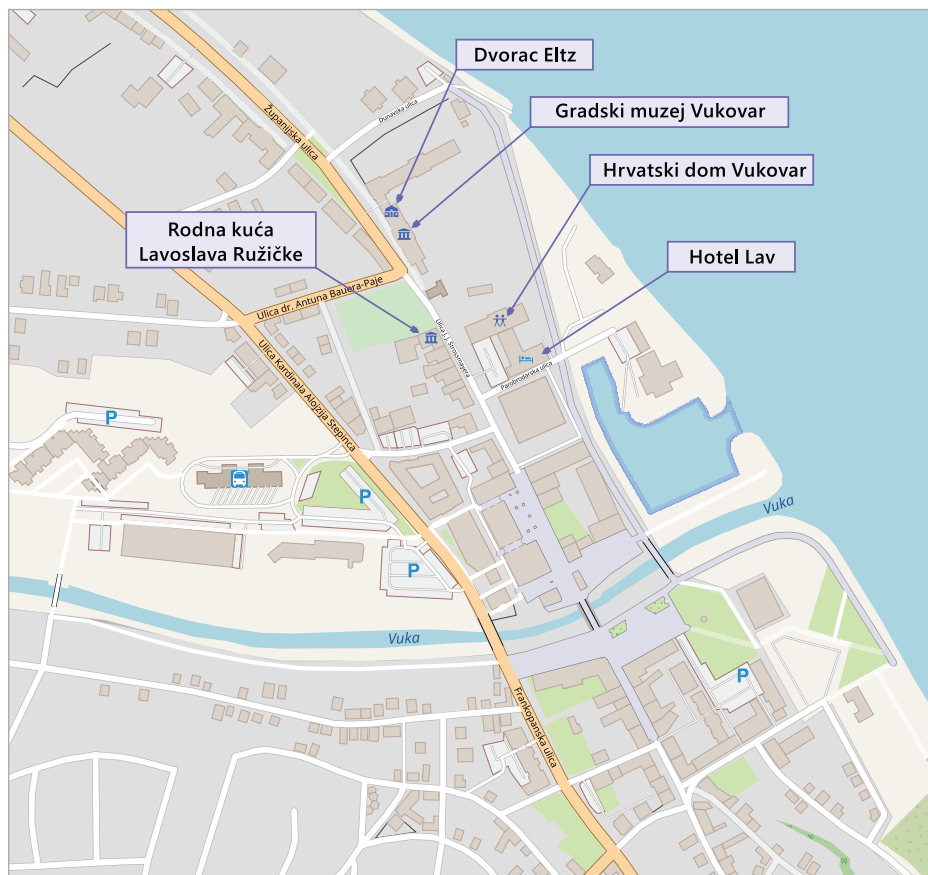
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Hrvatsko društvo kemijskih inženjera i tehnologa |
Croatian Society of Chemical Engineers

Javna ustanova u kulturi „Hrvatski dom Vukovar“, J. J. Strossmayera 20, Vukovar, Croatia
 Ružičkina kuća, J. J. Strossmayera 25, Vukovar, Croatia
 Hotel LAV, J. J. Strossmayera 18, Vukovar, Croatia



Ružičkini dani | *Ružička Days*

Međunarodni znanstveno-stručni skup **Ružičkini dani** tradicionalni je skup stručnjaka i znanstvenika iz područja kemije, kemij-skog i biokemijskog inženjerstva, prehrambene tehnologije, me-dicinske biokemije i farmacije, te kemije u poljoprivredi, šumarstvu i zaštiti okoliša, koji se tradicionalno održava u Vukovaru u sjeća-nje na istaknutog hrvatskog znanstvenika i nobelovca Leopolda (Lavoslava) Ružičku. Skup organiziraju Hrvatsko društvo kemijskih inženjera i tehnologa i Prehrambeno-tehnološki fakultet Sveučili-šta Josipa Jurja Strossmayera u Osijeku, uz područna društva HDKI

iz Osijeka, Vukovara, Požege i Belišća i međunarodne suorganizatore EuChemS i EHEDG.

Ružičkini dani su nastali inicijativom i predanim radom nekoliko uglednih znanstvenika na čelu s prof. dr. sc. Verom Johanides, profesorima i akademikima Nenadom Trinajstićem i Dragutinom Flešom i prof. dr. Ivanom Butulom, u suradnji s vukovarskim javnim i gospodarskim djelatnicima, dr. sc. Vladom Horvatom i dr. sc. Vladimirom Husarom.

Cilj Skupa je promicanje izvrsnosti u znanstvenim i stručnim istraživanjima s naglaskom na primjenu najnovijih znanstvenih rezultata i stručnih dostignuća. Skup je ujedno i pri-goda za susrete, razmjenu mišljenja i iskustava te uspostavu suradnje među sudionicima s visokih učilišta, instituta i gospodarstva.

Rad Skupa odvija se kroz plenarna i pozvana predavanja, usmena i posterska priopćenja, kao i sponzorirana predstavljanja gospodarskih subjekata. Skup prate i brojne druge aktivnosti, od izložbi i predstavljanja opreme i uređaja do različitih društvenih događanja.

*International conference **Ružička Days** is the traditional meeting of experts and scientists in the field of chemistry, chemical and biochemical engineering, food technology, medi-cal biochemistry and chemistry in agriculture, forestry and environment protection, that is traditionally held in Vukovar, the native town of famous Croatian scientist and Nobel laureate professor Lavoslav Ružička. The Conference is organized by Croatian Society of Chemical Engineers (CSCE), Zagreb and Faculty of Food Technology University of Josip Juraj Strossmayer in Osijek with the regional CSCE societies from Osijek, Vukovar, Požega and Belišće, and international co-organizers EuChemS, and EHEDG.*

Conference was initiated by dedicated work of several eminent scientists led by professor Vera Johanides, professors and academicians Nenad Trinajstić and Dragutin Fleš and pro-fessor Ivan Butula, in cooperation with Vukovar public and economic employees, dr. Vlado Horvat and dr. Vladimir Husar.

The main goal of this interdisciplinary conference is to promote excellence in science and engineering as well as application of up-to-date research results and technological achievements. In addition, the conference gives the opportunity for meetings, exchange of ideas, opinions, experiences and cooperation between participants from different working surroundings.

The Conference will include plenary, invited and conventional oral lectures, and poster ses-sions. During the Conference the presentation of companies, exhibition of equipment and devices and numerous social events will take place.

Susret mladih kemičara | Meeting of Young Chemists

U okviru međunarodnog znanstveno-stručnog skupa Ružičkini dani, od 2008. godine zahvaljujući inicijativi prof. Ivanke Miličić, održava se i **Susret mladih kemičara**, gdje učenici srednjih škola uz pomoć svojih mentora predstavljaju radove iz područja kemije, a nagrađuju se tri najbolja. Do sada su sudjelovale srednje škole iz Vukovara, Osijeka, Vinkovaca, Đakova, Slavonskog Broda, Žepča, Zagreba i Kutine.

SUSRET MLADIH KEMIČARA

Cilj Susreta mladih kemičara je usmjeriti učenike i mlade prema tehničkim i prirodnim strukama, osobito kemiji, te promicati izvrsnost, interdisciplinarnost, originalnost i inovativnost u znanstvenim istraživanjima, koja trebaju biti povezana s gospodarstvom i industrijskim potrebama.

U okviru 19. Ružičkinih dana održat će se po osmi put Susret mladih kemičara – učenika srednjih škola i njihovih mentora.

*Since 2008, thanks to the initiative of Prof Ivanka Miličić, within the international conference Ružička Days, **Meeting of Young Chemists** is also held, where high school students, with the help of their mentors, present papers in the field of chemistry, and the best three are awarded.*

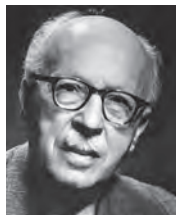
Until now, high schools from Vukovar, Osijek, Vinkovci, Đakovo, Slavonski Brod, Žepče, Zagreb, and Kutina have participated. In addition to promoting excellence, interdisciplinarity, originality, and innovation in scientific research, which all need to be linked to the economy and industrial needs, the aim of Ružička Days is to direct students and young people to the technical and natural sciences, especially chemistry.

For the eight time, the Meeting of Young Chemists – high school students and their mentors will be held during 19th Ružička Days.



6. susret mladih kemičara, 19. rujna 2018. | 6th Meeting of Young Chemists, September 19, 2018

Lavoslav Ružička



Lavoslav Ružička rođen je u Vukovaru 13. rujna 1887. godine. U razdoblju od 1906. do 1910. studirao je kemiju na Visokoj tehničkoj školi u Karlsruheu u Njemačkoj, gdje je stekao zvanje dr. pod nadzorom profesora Staudingera, osnivača makromolekularnih znanosti. Kao asistent profesora Staudingera do 1916. radio je na istraživanju strukture aktivnih komponenata biljke dalmatinskog buhača. Posebno se interesirao za kemiju terpena i istraživanja sinteze mirisa.

U tom razdoblju Ružička je dokazao da su mošusni mirisi, muskon i cibeton, makrociklički ketoni, što je omogućilo sintetsku proizvodnju skupocjenih mošusnih mirisa i povezano ga s farmaceutskom industrijom. Jedno vrijeme živi u Ženevi, a u razdoblju od 1927. do 1929. radi kao profesor organske kemije u Utrechtu. Povratak u Zürich 1929. početak je najuspješnijeg dijela njegove karijere. Godine 1934. Ružička je izazvao veliku pozornost kada je objavio djelomičnu sintezu muškog spolnog hormona androsterona, a već sljedeće godine i testosterona.

Radovi na spolnim hormonima i steroidima učvrstili su Ružičkin znanstveni ugled te je 1939. dobio Nobelovu nagradu za kemiju za rad na polimetilenima i višim terpenima. Zbog početka II. svjetskog rata nagrada mu je predana na ETH.

Sa suradnicima je objavio čak 583 znanstvena rada i to većinom u razdoblju između 1930. i 1950. Dodijeljeno mu je 13 različitih medalja i nagrada. Iako je primio švicarsko državljanstvo, Hrvatsku je smatrao svojom domovinom te je pomogao brojnim hrvatskim kemičarima. Lavoslav Ružička umro je 26. rujna 1976. u Mammernu na Bodenskom jezeru u 89. godini života, a pokopan je u Zürichu.

Lavoslav Ružička was born in Vukovar on September 13th, 1887. From 1906 to 1910, he studied chemistry at the Technical High School in Karlsruhe, Germany, where he earned a doctorate under the supervision of Professor Staudinger, the founder of macromolecular sciences. Until 1916, as an assistant to Professor Staudinger, he worked on researching the structure of the active components of the Dalmatian pyrethrum plant. He was particularly interested in terpene chemistry and odor synthesis research.

During this period, Ružička proved that musk fragrances, male and cibeton, are macrocyclic ketones, which enabled the synthetic production of precious musk fragrances and connected it with the pharmaceutical industry. He lived for a while in Geneva, and from 1927 to 1929 worked as a professor of organic chemistry in Utrecht. Returning to Zurich in 1929 was the beginning of the most successful part of his career. In 1934, Ružička caused a great deal of attention when he published a partial synthesis of the male sex hormone androsterone, and the following year testosterone. Work on sex hormones and steroids strengthened Ružička's scientific reputation, and in 1939 he was awarded the Nobel Prize in Chemistry for his work on Polymethylenes and higher terpenes. Due to the beginning of II. World War II, the award was presented to him at ETH.

He and his collaborators published 583 scientific papers, mostly in the period 1930–1950. During his scientific work he was awarded 13 different medals and awards. Although he received Swiss citizenship, he considered Croatia his homeland and helped many Croatian chemists. Lavoslav Ružička died on September 26, 1976 in Mammern on Lake Constance, at the age of 89, and was buried in Zurich.

Prehrambeno-tehnološki fakultet Osijek | Faculty of Food Technology Osijek

Prehrambeno-tehnološki fakultet Osijek moderna je visoko školska obrazovna institucija s 51-godišnjom tradicijom. Misija Fakulteta je sustavno razvijanje i širenje nacionalno i međunarodno prepoznate izvrsnosti u obrazovanju i istraživanju u području biotehničkih, tehničkih i prirodnih znanosti. Fakultet je organizator/suorganizator nekoliko znanstvenih i stručnih skupova. Zaposlenici Fakulteta svoje su aktivno sudjelovanje na „Ružičkinim danima“ započeli 1978. Fakultet se 2004. uključuje u organizaciju Skupa, a zahvaljujući naporima organizacijskog odbora s Fakulteta, godine 2010. Skup je prerastao u međunarodni uključenjem European Federation of Food Science and Technology (EFFoST). Mrežna stranica: <http://www.ptfos.unios.hr/>.

PTF

***The Faculty of Food Tehnology Osijek** is a modern higher education institution with 51 years of tradition. The mission of the Faculty is to develop and spread nationally and internationally recognized excellence in education and research in the field of biotechnical, technical and natural sciences. Faculty is the organizer/co-organizer of several scientific and professional congresses. Since 1978 the Faculty employees actively participate in the „Ružička days“. Since 2004, the Faculty has been co-organizing the conference „Ružička days“, so that in 2010, due to the effort of the Faculty organizing committee, the conference became international, joining the European Federation of Food Science and Technology (EFFoST). Web-site: <http://www.ptfos.unios.hr/>.*

**Hrvatsko društvo kemijskih inženjera i tehnologa (HDKI) |
Croatian Society of Chemical Engineers (CSCE)**

Hrvatsko društvo kemijskih inženjera i tehnologa (HDKI) jedinstvena je udruga kemijskih inženjera, kemičara i tehnologa, koja djeluje na području Republike Hrvatske. HDKI okuplja kemijske inženjere, kemičare i tehnologe radi unaprjeđenja kemijske i kemijsko-inženjerske struke te srodnih struka. Radi na razvoju prirodnih i tehničkih znanosti i njihovoj primjeni u praksi. Prati razvoj znanosti, tehnike i tehnologije, daje mišljenja o tehničkim i tehnološkim rješenjima, o planiranju izgradnje, uređivanju prostora i čuvanju čovjekova okoliša. HDKI izdaje časopise: **Kemija u industriji** (www.hdki.hr/kui), **Chemical and Biochemical Engineering Quarterly** (www.hdki.hr/cabeq) i **Reaktor ideja** (https://www.hdki.hr/hdki/casopisi/reaktor_ideja). Mrežna stranica društva: www.hdki.hr.



***The Croatian Society of Chemical Engineers (CSCE)** is a unique association of chemical engineers, chemists, and technologists that functions in the Republic of Croatia. CSCE gathers chemical engineers, chemists and technologists to improve chemical, chemical engineering and related professions. It is permanently acting on the improvement of natural and technical sciences and their application in practice; it encourages all kinds of engineering activities aimed at the optimization of technical and economic development, welfare, security, health, environmental protection and social well-being. CSCE is the publisher of the journals: **Kemija u industriji** (www.hdki.hr/kui), **Chemical and Biochemical Engineering Quarterly** (www.hdki.hr/cabeq), and **Reactor of Ideas** (https://www.hdki.hr/hdki/casopisi/reaktor_ideja). Society web-site: www.hdki.hr.*

Europsko kemijsko društvo | *European Chemical Society (EuChemS)*



Europsko kemijsko društvo (EuChemS) je krovna organizacija koja predstavlja nacionalna kemijska društva i druge organizacije povezane s kemijom u Europi. EuChemS želi njegovati platformu za znanstvenu raspravu i pružiti jedinstven, nepristran europski glas o ključnim političkim pitanjima u kemiji i srodnim područjima.

EuChemS djeluje od 1970. godine, u početku pod imenom FECS (*Federation of European Chemical Sciences*). FECS je 3. srpnja 1970. u Pragu osnovalo 17 društava članica istočne i zapadne Europe. Dana 14. listopada 2004. godine, na Generalnoj skupštini u Bukureštu, FECS je pridružio EuCheMS, Europsko udruženje za kemijske i molekularne znanosti sa sjedištem u Belgiji i pripremio novi ustav objavljen u Belgijskom listu 28. travnja 2006. U ljeto 2018. godine usvojeno je novo ime, kratica i logotip: EuChemS, Europsko kemijsko društvo.

Predstavljajući više od 160 000 kemičara iz 51 Društva članova i drugih organizacija povezanih s kemijom, EuChemS se oslanja na jedinstvenu mrežu aktivnih istraživača koji su uključeni u sva područja kemije. Putem te mreže EuChemS organizira nekoliko specijaliziranih akademskih konferencija kao i dvogodišnji kongres EuChemS Chemistry, Europski kongres kemijskih znanosti. EuChemS također promiče ulogu i ugled kemijskih znanosti u široj javnosti putem društvenih medija i biltena te organizacijom konferencija i radionica otvorenih za društvo. Mrežna stranica: www.euchems.eu.

The European Chemical Society (EuChemS), is an umbrella organisation representing national Chemical Societies and other chemistry-related organisations in Europe. EuChemS aims to nurture a platform for scientific discussion and to provide a single, unbiased European voice on key policy issues in chemistry and related fields.

EuChemS has been active since 1970, initially under the name of FECS (Federation of European Chemical Sciences). FECS was established on 3 July 1970 in Prague by 17 Member Societies from both east and west Europe. On 14 October 2004 in its General Assembly in Bucharest, FECS decided to adopt the EuCheMS, the European Association for Chemical and Molecular Sciences designation, with its headquarters in Belgium, and to prepare a new constitution, which was published in the Belgian Gazette on 28 April 2006. In the summer of 2018, a new name, acronym and logo was adopted: EuChemS, the European Chemical Society.

Representing more than 160,000 chemists from 51 Member Societies and other chemistry related organisations, EuChemS relies on a unique network of active researchers involved in all the fields of chemistry. Through this network, EuChemS organises several specialised academic conferences as well as the biannual EuChemS Chemistry Congress, the European congress of chemical sciences. EuChemS also promotes the role and image of the chemical sciences among the general public and policy-makers through social media, newsletters and through the organisation of conferences and workshops open to the society. Web-site: www.euchems.eu.

Europska udruga za higijensko inženjerstvo i dizajn | European Hygienic Engineering & Design Group (EHEDG)



Europska udruga za higijensko inženjerstvo i dizajn (EHEDG) osnovana je 1989. kao neprofitna organizacija proizvođača opreme, prehrambenih industrija, dobavljača za prehrambenu industriju, istraživačkih instituta i sveučilišta, javnih zdravstvenih organizacija i državnih institucija. Osnovni cilj EHEDG-a je promocija sigurne hrane kroz unaprjeđenje higijenskog inženjerstva i dizajna u svim područjima proizvodnje i prerade hrane. EHEDG aktivno podržava europsko zakonodavstvo, koje zahtijeva da se rukovanje, obrada i pakiranje hrane provede na higijenski način, koristeći higijenski ispravne uređaje i prostorije prema direktivi o higijeni hrane, direktivi za strojeve i direktivi o materijalima u kontaktu s hranom (EC Direktiva 2006/42/EC za strojeve, EN 1672-2 i EN ISO 14159 Higijenski zahtjevi koji se odnose na uređaje u proizvodnji). Proizvođači opreme kao i njihovi korisnici obavezuju se da će implementirati te zahtjeve i EHEDG njima osigurava smjernice za esencijalne higijenske standarde pri tom poštujući nacionalne i međunarodne zakone. Definicija EHEDG misije je: "EHEDG omogućuje sigurnu proizvodnju hrane pružajući smjernice, kao autoritet u higijenskom inženjerstvu i dizajnu." Mrežna stranica: <https://ehedg.hr>.

The European Hygienic Engineering & Design Group (EHEDG) was founded in 1989 as a non-profit consortium of equipment manufacturers, food producers, suppliers to the food industry, research institutes and universities, public health authorities and governmental organisations.

The principal goal of EHEDG is the promotion of safe food by improving hygienic engineering and design in all aspects of food manufacture.

EHEDG actively supports European legislation, which requires that handling, preparation processing and packaging of food is done hygienically using hygienic machinery and in hygienic premises according to the food hygiene directive, the machinery directive and the food contact materials directive (see EC Directive 2006/42/EC for Machinery, EN 1672-2 and EN ISO 14159 on Hygiene requirements for the design of machinery).

Equipment manufacturers and users are responsible to implement these requirements and EHEDG provides them guidance on the essential hygienic design standards in compliance with national and international legislation.

The EHEDG mission is defined as: "Raise awareness of hygienic engineering, develop guidance and solutions, and provide a platform to promote EHEDG expertise that facilitates networking between hygienic engineering experts from around the world."

Web-site: www.ehedg.org.

Sveučilište Josipa Jurja Strossmayera u Osijeku
Prehrambeno-tehnološki fakultet Osijek
Hrvatsko društvo kemijskih inženjera i tehnologa (HDKI)
European Chemical Society (EuChemS)
European Hygienic Engineering & Design Group (EHEDG)

international conference
19. Ružička days
TODAY SCIENCE – TOMORROW INDUSTRY
September 21–23, 2022 | Vukovar, Croatia

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Utorak | Tuesday, 20. 9. 2022.

19. Ružičkini dani | 19th Ružička Days



17:30 – 19:00 **Prijava sudionika i postavljanje postera*** (Hrvatski dom Vukovar)
Registration of participants and poster setup*
(Croatian home Vukovar)

19:00 **Prijem dobrodošlice** (Ružičkina kuća)
Welcome Reception (Ružička house)

- **1. dan:** SEKCIJA A (1. – 39.); SEKCIJA B (40. – 65.)
 - **2. dan:** SEKCIJA C (1. – 20.); SEKCIJA D (21. – 37.); SEKCIJA E (38. – 40.); SEKCIJA F (41. – 64.)
 - **Day 1st:** SECTION A (1. – 39.); SECTION B (40. – 65.)
 - **Day 2nd:** SECTION C (1. – 20.); SECTION D (21. – 37.); SECTION E (38. – 40.); SECTION F (41. – 64.)
- *

Srijeda | Wednesday, 21. 9. 2022.

19. Ružičkini dani | 19th Ružička Days

08:00 **Prijava sudionika i postavljanje postera*** (Hrvatski dom Vukovar)
Registration of participants and poster setup*
(Croatian home Vukovar)

9:00 – 9:45 **Otvaranje i pozdravni govori** (Hrvatski dom Vukovar)
Opening ceremony (Croatian home Vukovar)
(kratka stanka nakon pozdravnih govora 5 – 10 min)
(short break after the welcome speeches of 5–10 min)

9:50 – 11:10 **PLENARNA I POZVANA PREDAVANJA** (Hrvatski dom Vukovar)
PLENARY AND INVITED LECTURES (Croatian home Vukovar)
Moderatori | Chairs: Igor Jerković, Fabio Faraguna

09:50 – 10:20 **Peter Chen**
De novo MECHANISTIC DESIGN OF CATALYSTS,
WITH A HISTORICAL TWIST
Laboratory of Organic Chemistry, ETH Zurich
(plenarno predavanje | *plenary lecture*)

10:20 – 10:50 **Miroslav Slouf**
APPLIED RESEARCH IN THE FIELD OF POLYMER MORPHOLOGY:
FROM TOTAL JOINT REPLACEMENTS TO NOVEL MICROSCOPIC
METHODS
Institute of Macromolecular Chemistry, Czech Academy of Sciences
(plenarno predavanje | *plenary lecture*)

- 10:50 – 11:10 **Hrvoje Kušić**
PHOTOCATALYTIC WATER TREATMENT OF CONTAMINANTS OF
EMERGING CONCERN USING SOLAR ACTIVE MATERIALS
Faculty of Chemical Engineering and Technology,
University of Zagreb
(pozvano predavanje | *invited lecture*)
- 11:10 – 11:50 **Posterska priopćenja* i stanka za kavu** (Hrvatski dom Vukovar)
Poster presentations* and coffee break (Croatian home Vukovar)
- 11:50 – 13:25 **PLENARNA I POZVANA PREDAVANJA** (Hrvatski dom Vukovar)
PLENARY AND INVITED LECTURES (Croatian home Vukovar)
USMENA PRIOPĆENJA (Hrvatski dom Vukovar)
ORAL PRESENTATION (Croatian home Vukovar)
Moderatori | *Chairs*: Đurđica Ačkar, Jelka Pleadin
- 11:50 – 12:20 **Volkmar Passoth**
OLEAGINOUS YEASTS FOR BIOCHEMICALS, FEED AND FOOD
FROM LOW VALUE RESIDUES
Swedish University of Agricultural Sciences
(plenarno predavanje | *plenary lecture*)
- 12:20 – 12:40 **Danijela Bursać Kovačević**
THE USE OF 3D-PRINTING IN THE PRODUCTION OF FUNCTIONAL
PRODUCTS BASED ON STRAWBERRY TREE FRUIT (*Arbutus unedo* L.)
Faculty of Food Technology and Biotechnology, University of Zagreb
(pozvano predavanje | *invited lecture*)
- 12:40 – 12:55 **Angela Matanović**, Marina Svetec Miklenić, Anamarija Štafa,
Božidar Šantek, Ivan Krešimir Svetec
PRODUCTION OF L-LACTATE AND 2,3-BUTANEDIOL USING
GENETICALLY MODIFIED YEAST *Kluyveromyces marxianus*
(usmeno priopćenje | *oral presentation*)
- 12:55 – 13:10 **Sanja Miloš**, Martina Jurković, Dražen Knežević
SETTING UP A STUDY ON SAMPLING OF INDUSTRIAL HEMP
PRODUCTS IN RETAILS IN REPUBLIC OF CROATIA
(usmeno priopćenje | *oral presentation*)
- 13:10 – 13:25 Petar Šušnjara, Olivera Galović, Nikolina Kolobarić, Zrinka Mihaljević,
Ines Drenjančević
MEASUREMENT OF LUTEIN CONCENTRATION
IN SERUM OF YOUNG HEALTHY SUBJECT
(usmeno priopćenje | *oral presentation*)
- 13:25 – 15:00 **Stanka za ručak | Lunch break**

15:00 – 16:40

PLENARNO PREDAVANJE (Hrvatski dom Vukovar)
PLENARY LECTURE (Croatian home Vukovar)
USMENA PRIOPĆENJA (Hrvatski dom Vukovar)
ORAL PRESENTATION (Croatian home Vukovar)
Sponzorsko predavanje (Hrvatski dom Vukovar)
Sponsorship lecture (Croatian home Vukovar)
Moderatori | Chairs: Elvira Vidović, Maja Molnar

15:00 – 15:30

Marijana Hranjec
N-BENZIMIDAZOLE AND IMIDAZO[4,5-*b*]PYRIDINE DERIVED
TUBULINE POLYMERIZATION INHIBITORS
Faculty of Chemical Engineering and Technology, University of Zagreb
(plenarno predavanje | *plenary lecture*)

15:30 – 15:45

Suzana Kralj, Tatiana Soto Montero, Monica Morales-Masis
MECHANOCHEMICAL SYNTHESIS OF HYBRID HALIDE PEROVSKITES:
SCREENING, CHARACTERIZATION AND APPLICATION
(usmeno priopćenje | *oral presentation*)

15:45 – 16:00

Stanislav Kurajica, Katarina Mužina, Goran Dražić, Ivana Katarina
Ivković, Marina Duplančić, Gordana Matijašić, Vilko Mandić,
Patrick Guggenberger, Martina Župančić, Filip Brleković, Ivana Panžić,
Iva Minga, Juraj Šipušić, Vesna Tomašić, Sabina Kesser, Ivan Simčić,
Dražan Jozić, Vasyl Shvalya, Uroš Cvelbar, Fabio Faraguna, Arijeta
Bafti, Leo Bauer, Luka Pavić, Monika Mihaljević, Jakov-Stjepan Pavelić,
Lucija Volf, Helena Bach-Rojecky, Tea Grbešić, Emina Ema Alić
DOPED CERIA NANO CATALYSTS
(usmeno priopćenje | *oral presentation*)

16:00 – 16:15

Magdalena Jajčinović, Ljerka Slokar Benić, Anita Štrkalj, Andreja Carek
INFLUENCE OF CORROSIVE MEDIA ON ELUTION OF TITANIUM
ALLOY METAL IONS
(usmeno priopćenje | *oral presentation*)

16:15 – 16:30

Dubravka Madunić-Čačić, Nikola Sakač, Blaženka Čiško-Anić,
Marija Jozanović
PRINCIPLES OF GREEN CHEMISTRY IN SURFACTANT ANALYSIS IN
DETERGENT INDUSTRY
(usmeno priopćenje | *oral presentation*)

16:30 – 16:40

Sponzorsko predavanje: Sigma d.o.o.
Sponsorship lecture: Sigma d.o.o.

19:30

Zajednička večera (Gradski muzej Vukovar)
Gala dinner (Gradski muzej Vukovar)

- **1. dan:** SEKCIJA A (1. – 39.); SEKCIJA B (40. – 65.)
- **2. dan:** SEKCIJA C (1. – 20.); SEKCIJA D (21. – 37.); SEKCIJA E (38. – 40.); SEKCIJA F (41. – 64.)
- **Day 1st:** SECTION A (1. – 39.); SECTION B (40. – 65.)
- **Day 2nd:** SECTION C (1. – 20.); SECTION D (21. – 37.); SECTION E (38. – 40.); SECTION F (41. – 64.)

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- 11:45 – 12:00 **Otvaranje Susreta mladih kemičara** (Ružičkina kuća)
Meeting of Young Chemists – Opening (Ružička house)
Predsjedavajući | *Chairs:* Olgica Martinis, Vesna Ocelić Bulatović,
Dajana Kučić Grgić
- 12:00 – 13:00 **Izlaganja učenika**
Student lectures
- 12:00 – 12:15 Erika Mičić, Matej Maljak, Marko Šeper, Leonarda Puđa, Kiara Lemac,
Anja Vinković, Marta Atanasovski, Antonija Milić, Nataša Vinković
LAVOSLAV RUŽIČKA – EIGHT HONORARY DOCTORATES
FOR THE 8th MEETING OF YOUNG CHEMISTS
Gimnazija Vukovar
- 12:15 – 12:30 Centner Ena, Matuš Vladimira, Radić Maja
DETERMINATION OF CAFFEINE IN TEA
Tehnička škola Nikole Tesle Vukovar
- 12:30 – 12:45 Karolina Dvojković, Ana Kujundžić,
Marinela Ižaković Ivić, Ivan Matijanić
CHEMISTRY BEHIND THE PHOTOGRAPHIC PROCESS
AND THE PHYSICS OF LIGHT
Gimnazija Vukovar
Srednja škola Valpovo
- 12:45 – 13:00 Nika Đuzel, Josipa Jurčević, Antea Kukolj,
Kristina Trogrlić, Slavica Jukić
TESTING THE QUALITY OF HANDMADE NATURAL SOAP
Katolički školski centar "Don Bosco", Opća gimnazija (Žepče, BiH)
- 13:00 – 13:30 **Pauza**
Pause
- 13:30 – 15:30 **Izlaganja učenika**
Student lectures
- 13:30 – 13:45 Helena Floreani, Teuta Muharemi, Lucija Hunjadi, Ivor Janković,
Silvija Krnić, Nikolina Filipović
INFLUENCE OF INHIBITORS ON SALIVARY AMILASE ACTIVITY
III. gimnazija Osijek
Odjel za kemiju Sveučilišta u Osijeku
- 13:45 – 14:00 Magdalena Jurić, Sandra Maglica, Renata Šimić, Maja Spajić
ANTIOXIDATIVE CAPACITY OF VEGETABLE GROWN IN THE KŠC
„DON BOSCO“ ŽEPČE
Katolički školski centar „Don Bosco“, Tehničko-obrtnička škola
(Žepče, BiH)

- 14:00 – 14:15 Petra Novak Mlinarić, Tamara Tkalec-Car
MONITORING THE WATER QUALITY
OF NATURAL SOURCE BELSKI DOL
Graditeljska prirodoslovna i rudarska škola Varaždin
- 14:15 – 14:30 Maja Skrenković, Anja Kovač, Dominik Vučković, Adrian Čukić,
Kristina Kristek, Nikolina Filipović
THE EASY WAY TO COMPLEX MOLECULES
III. gimnazija Osijek
Odjel za kemiju Sveučilišta u Osijeku
- 14:30 – 14:45 Vanja Perković, Ana Penava, Marko Tomas
TESTING OF PHYSICO-CHEMICAL PARAMETERS
OF GREEN CLAY FACE MASK
Katolički školski centar „Don Bosco“, Opća gimnazija (Žepče, BiH)
- 14:45 – 15:00 Nikolina Velikić, Željana Milić, Đurđevka Pecikozić
ENERGY DRINKS
Tehnička škola Nikole Tesle Vukovar
- 15:00 – 15:15 Antonio Mamić, Kale Marković, Dorotea Štefanac, Nika Vitas,
Jasminka Žiža, Ivana Ćosić, Bojan Matijević
INFLUENCE OF DIFFERENT STORAGE TEMPERATURES ON THE
PROPERTIES OF BEER CONTAMINATED WITH *Lactobacillus brevis*
Gimnazija Karlovac
Veleučilište u Karlovcu
- 15:15 – 15:30 Igor Prašnikar, Tatjana Varga, Nina Radaković, Lara Vrajić, Maja Vranić
WELLS IN OSIJEK-BARANJA COUNTY
Tehnička škola i prirodoslovna gimnazija Ruđera Boškovića Osijek
- 15:30 – 16:00 **Zaključci na temelju izlaganja radova učenika**
Conclusions based on the students' lectures

Četvrtak | Thursday, 22. 9. 2022.

- 08:30 **Prijava sudionika i postavljanje postera*** (Hrvatski dom Vukovar)
Registration of participants and poster setup*
(Croatian home Vukovar)
- 9:30 – 11:15 **PLENARNA I POZVANA PREDAVANJA** (Hrvatski dom Vukovar)
PLENARY AND INVITED LECTURES (Croatian home Vukovar)
USMENA PRIOPĆENJA (Hrvatski dom Vukovar)
ORAL PRESENTATIONS (Croatian home Vukovar)
Sponzorsko predavanje (Hrvatski dom Vukovar)
Sponsorship lecture (Croatian home Vukovar)
Moderatori | Chairs: Dajana Gašo Sokač, Petar Kassal

- 09:30 – 10:00 **Igor Jerković**
NONPOLAR COMPOUNDS OF MACROALGAE
Faculty of Chemistry and Technology, University of Split
(plenarno predavanje | *plenary lecture*)
- 10:00 – 10:20 **Nataša Šjaković Vujičić**
SELF-HEALING ORGANOGELEATORS
OF VEGETABLE OIL AND W/O EMULSIONS
Ruđer Bošković Institute
(pozvano predavanje | *invited lecture*)
- 10:20 – 10:35 **Katarina Mužina**, Helena Bach-Rojecky, Stanislav Kurajica
COMBUSTION SYNTHESIS OF ZIRCONIUM DOPED CeO_2
(usmeno priopćenje | *oral presentation*)
- 10:35 – 10:50 **TamilSelvi Selvam**, Ana Tolić, Vlasta Mohaček Grošev, Mile Ivanda
MICROPLASTICS DISTRIBUTION IN ZAGREB TAP-WATER ANALYSED
BY RAMAN SPECTROSCOPY
(usmeno priopćenje | *oral presentation*)
- 10:50 – 11:05 **Filip Brleković**, Andrej Terzin, Stanislav Kurajica
COBALT DOPED WILLEMITE SYNTHESIS
(usmeno priopćenje | *oral presentation*)
- 11:05 – 11:15 **Sponzorsko predavanje:** Selvita d.o.o.
Sponsorship lecture: Selvita d.o.o.
- 11:15 – 12:00 **Posterska priopćenja* i stanka za kavu** (Hrvatski dom Vukovar)
Poster presentations* and coffee break (Croatian home Vukovar)
- 12:00 – 13:20 **POZVANO PREDAVANJA** (Hrvatski dom Vukovar)
INVITED LECTURE (Croatian home Vukovar)
USMENA PRIOPĆENJA (Hrvatski dom Vukovar)
ORAL PRESENTATION (Croatian home Vukovar)
Moderatori | *Chairs:* Ante Lončarić, Sanja Miloš
- 12:00 – 12:20 **Jelka Pleadin**
CONDITIONS INFLUENCING MYCOTOXIN CONTAMINATION OF
CROATIAN TRADITIONAL MEAT PRODUCTS
The Croatian Veterinary Institute
(pozvano predavanje | *invited lecture*)
- 12:20 – 12:35 Amina Kolić, **Amela Kusur**, Martina Tanović, Amel Selimović,
Dijana Miličević, Gordan Avdić
EFFECTS OF ADDITION ON PASTA TASTE
(usmeno priopćenje | *oral presentation*)
- 12:35 – 12:50 **Stipe Čelan**, Aldina Kesić, Orjana Semren, Zora Pilić,
Nadira Ibrišimović Mehmedinović
THE EFFECT OF ENRICHMENT HONEY WITH PROPOLIS ON
ANTIOXIDANT CAPACITY AND POLYPHENOL CONTENT
(usmeno priopćenje | *oral presentation*)

- 12:50 – 13:05 **Siniša Ozimec**, Denise Deže, Dragan Prlić
FLORISTIC CHARACTERISTICS OF KOPAČKI RIT AND DANUBE DELTA
(usmeno priopćenje | *oral presentation*)
- 13:05 – 13:20 **Orjana Semren**, Aldina Kesić, Stipe Čelan, Zora Pilić, Nadira
Ibrišimović Mehmedinović
THE QUALITY OF BOSNIAN-HERZEGOVINIAN HONEY IN THE LIGHT
OF HONEY REGULATIONS
(usmeno priopćenje | *oral presentation*)
- 13:20 **Zatvaranje Skupa** uz poziv na 20. Ružičkine dane (2024.)
(Hrvatski dom Vukovar)
Conference closing ceremony with a call for 20th Ružička days
(2024) (Croatian home Vukovar)

- **1. dan:** SEKCIJA A (1. – 39.); SEKCIJA B (40. – 65.)
- **2. dan:** SEKCIJA C (1. – 20.); SEKCIJA D (21. – 37.); SEKCIJA E (38. – 40.); SEKCIJA F (41. – 64.)
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Petak | Friday, 23. 9. 2022.

- 10:00 – 14:00 **Izlet:** Đakovačka katedrala i podrumi Misnih vina
(polazak ispred Ružičkine kuće u 10:00)
Excursion: *The Đakovo cathedral and wine cellar of „Misna vina“*

21. i 22. 9. 2022. sudionici Ružičkinih dana i Susreta mladih kemičara mogu besplatno posjetiti Vukovarski vodotoranj (radno vrijeme od 9 do 21 h). Besplatnu kartu preuzeti na blagajni vodotoranja uz predočenje akreditacije Skupa.

On September 21 and 22, 2022, participants of 19th Ružička Days and the 8th Meeting of Young Chemists can visit the Vukovar Water Tower (working hours from 9 a.m. to 9 p.m.) for free. A free ticket can be collected at the cash desk of the Vukovar Water Tower upon presentation of the Conference accreditation.

SEKCIJA A: KEMIJSKA ANALIZA I SINTEZA
 CHEMICAL ANALYSIS AND SYNTHESIS

A-1.	Ana Tolić, TamilSelvi Selvam, Vlasta Mohaček Grošev, Lara Mikac, Mile Ivanda DEVELOPMENT OF METHOD FOR MICROPLASTICS DETECTION IN DRINKING WATER BY MICRO-RAMAN SPECTROSCOPY
A-2.	Ana-Marija Gotal Skoko, Maria Celeiro, Aly Castillo, Marta Lores, Martina Skendrović Babojelić, Leonardo Vinković, Tihomir Kovač, Ante Lončarić CROATIAN TRADITIONAL APPLE VARIETIES AS A SOURCE OF BIOACTIVE COMPOUNDS
A-3.	Anita Štrkalj, Zoran Glavaš, Martina Marić STAINLESS STEEL COOKWARE ANALYSIS
A-4.	Anita Štrkalj, Zoran Glavaš, Uršula Apalović MIGRATION OF NICKEL FROM STEEL JEWELRY
A-5.	Anja Rakas, Kristina Olujić, Jurja Vukovinski, Tatjana Gazivoda Kraljević PALLADIUM CATALYZED SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF NOVEL 2-ARYLBENZOXAZOLE DERIVATIVES
A-6.	Azra Đulović, Luana Grmuša, Ivica Blažević INFLUENCE OF SELENIUM ON GLUCOSINOLATE PROFILE IN ROCKET SPROUTS
A-7.	Filip Vranješević, Maria Kolympadi-Markovic, Davor Šakić, Valerije Vreck, Dean Marković CO ₂ AS A STARTING MATERIAL IN THE CATALYTIC SYNTHESIS OF CARBONATES AND CARBAMATES
A-8.	Fran Prašnikar, Mario Komar, Valentina Pavić, Maja Molnar SYNTHESIS OF QUINAZOLINONE DERIVATIVES USING SELECTED GREEN METHODS AND THEIR POTENTIAL ANTIBACTERIAL ACTIVITY
A-9.	Hana Zajkić, Milenko Korica, Tomislav Balić EXTRACTION OF METAL CATIONS WITH POROUS OXO-AZA MACROCYCLIC COMPOUNDS
A-10.	Iva Pukleš, Nikola Sakač, Brunislav Matasović, Bojan Šarkanj, Ana Vesigner, Marija Jozanović DEVELOPMENT OF NEW COST-EFFECTIVE MICROFLUIDICS METHOD FOR CARNOSINE DETERMINATION IN DIETARY SUPPLEMENTS
A-11.	Ivan Ćorić, Jelena Kojčinović, Dalibor Tatar, Elvira Kovač-Andrić OPTIMIZATION OF SONOCHEMICAL SYNTHESIS OF ZrO ₂ NANOPARTICLES
A-12.	Ivan Pucko, Rafael Anelić, Fabio Faraguna, Marko Racar SYNTHESIS OF METHACRYLIC POLYMER ADDITIVES WITH DIFFERENT AMOUNTS OF BENZYL METHACRYLATE AS POUR POINT DEPRESSANTS FOR DIESEL FUEL

A-13.	Jasmina Lapić, Rebeka Perčić, Iva Logarušić, Martina Bagović, Kristina Radošević, Senka Djaković BIOCONJUGATES OF FERROCENE AND 2-THIOURACIL DERIVATIVES: SYNTHESIS, SPECTRAL CHARACTERIZATION AND BIOLOGICAL ACTIVITY
A-14.	Josip Radić, Marija Bralić, Anđela Radan, Lana Škutin, Marija Vučetić DEVELOPMENT OF CARBON PASTE ELECTRODE FOR THE POTENTIOMETRIC DETERMINATION OF ACEBUTOLOL
A-15.	Leo Štefan, Ivica Đilović, Ana Čikoš, Miljenko Dumić STABILITY OF METHIMAZOLE IN DICHLOROMETHANE
A-16.	Lucija Rebrović, Mihovil Medić, Fabio Faraguna, Elvira Vidović, Ante Jukić EFFECT OF POLYMERIC SURFACTANTS ON STABILITY OF CARBON NANOTUBES AND SYNTETIC OIL-BASED NANOFLUIDS
A-17.	Ljilja Žilić, Lidija Pirija, Ani Radonić VOLATILE COMPOUNDS FROM <i>Aurinia sinuata</i> AND <i>Aurinia leucadea</i>
A-18.	Magda Relić, Mario Herceg, Ana Sutlović, Mihajlo Banjanac, Vedrana Radovanović, Leentje Persoons, Dirk Daelemans, Livio Racané SYNTHESIS, DYEING PROPERTIES AND BIOLOGICAL ACTIVITY OF NEW BENZOTHAZOLE AZO DYES
A-19.	Martina Piškor, Silvija Maračić, Sandra Kraljević Pavelić, Krešimir Pavelić, Silvana Raić-Malić ESTER AND OXIME-ETHER LINKED HETEROCYCLIC DERIVATIVES OF FERROCENE: MECHANOCHEMICAL SYNTHESIS AND ANTIPROLIFERATIVE EVALUATION
A-20.	Martina Sušjenka, Martina Jakovljević Kovač, Mislav Mustapić, Maja Molnar USAGE OF PLANT EXTRACTS IN GREEN SYNTHESIS OF IRON NANOPARTICLES
A-21.	Mia Gotovuša, Matija Krvavica, Fabio Faraguna THE INFLUENCE OF THE REACTION PARAMETERS ON THE SYNTHESIS OF FATTY ACID HEXYL ESTERS
A-22.	Mia Mrčela, Dubravka Gembarovski, Nina Krpan, Sandro Makarić, Anamarija Skenderović, Vladimir Radić <i>In vitro</i> CHARACTERIZATION OF THE GENERIC PEPTIDE THERAPEUTIC: THE GLP-1R AGONIST CASE STUDY
A-23.	Mihovil Medić, Lucija Rebrović, Fabio Faraguna, Elvira Vidović, Ante Jukić POUR POINT AND LUBRICITY IMPROVEMENT OF MINERAL YUBASE 4 OIL WITH HYDROXYPROYL AND BENZYL METHACRYLATE POLYMER ADDITIVES
A-24.	Mirjana Lončar, Maja Molnar, Marco Blangetti, Davide Arnodo, Federica de Nardi AN ECO-FRIENDLY ROUTE FOR THE SYNTHESIS OF COUMARIN BASED TRIAZOLE DERIVATIVES
A-25.	Mitar Ivana, Paut Andrea, Guć Lucija, Vrankić Martina, Marcius Marijan, Krehula Stjepko, Prkić Ante INFLUENCE OF THE ADDITION OF PLANT MATERIAL IN THE MICROWAVE-ASSISTED SYNTHESIS OF IRON OXIDES

A-26.	Mladenka Šarolić, Željana Pavlović, Zvonimir Marijanović, Ani Radonić, Žana Delić VOLATILE COMPOUNDS OF BRANDY TRAVARICA
A-27.	Monika Kovačević, Emili Vidan, Klara Širić, Ivan Kodrin, Sunčica Roca, Krešimir Molčanov, Valentina Milašinović, Lidija Barišić THE INFLUENCE OF THE PROTECTING GROUP ON THE CONFORMATIONAL PROPERTIES OF FERROCENE CONJUGATES WITH VALINE
A-28.	Nada Glumac, Marija Jozanović, Dubravka Madunić Čačić, Dean Marković, Tajana Koščak, Nikola Sakač INFLUENCE OF NONIONIC SURFACTANTS ON RESPONSE PROPERTIES OF 2-METHYL-1,3-DIOCTADECYL-1 <i>H</i> -BENZO[d]IMIDAZOL-3-IUM – BASED SURFACTANT SENSOR
A-29.	Olivera Galović, Doris Prokopec, Zlata Kralik, Manuela Košević, Gordana Kralik INFLUENCE OF PARTICLE SIZE AND SAMPLE-EXTRACTION MIXTURE RATIO ON EXTRACTION OF LUTEIN FROM LAYING HENSE FEED MIXTURE
A-30.	Renato Tomaš, Ivan Pehar, Snežana Papović, Zdzisław Kinart, Teona Teodora Borović, Milan Vraneš VOLUMETRIC PROPERTIES OF SOLUTIONS OF 1-METHYLIMIDAZOLIUM ACETATE IN <i>N,N</i> -DIMETHYLACETAMIDE, <i>N,N</i> -DIMETHYLFORMAMIDE AND DIMETHYL SULFOXIDE
A-31.	Robert Ostrički, Tatjana Gazivoda Kraljević SYNTHESIS AND STRUCTURAL CHARACTERIZATION OF NOVEL 1,2,3-TRIAZOLE DERIVATIVES OF BENZO[d]OXAZOLE-2-THIOL
A-32.	Roberto Basara, Ana Ivanković, Dalibor Tatar, Jelena Kojčinović, Igor Djerdj AZO DYE DEGRADATION ACTIVITY OF PEROVSKITE-TYPE MATERIALS
A-33.	Rosana Ribić, Vesna Petrović Peroković, Željka Car, Monika Kovačević, Lidija Barišić DESIGN AND SYNTHESIS OF MANNOSYLATED FERROCENE DERIVATIVES OF DESMURAMYL PEPTIDES
A-34.	Simona Kovačić, Vilma Lovrinčević, Dragana Vuk, Marija Vuković Domanovac BIODEGRADATION OF AMOXICILLIN
A-35.	Slavica Marinović APPLICATION OF PETROLEUM BIOMARKERS FOR CHARACTERIZATION AND SOURCE IDENTIFICATION OF CRUDE OIL
A-36.	Tomislav Šilješ, Sara Goman, Jelena Kojčinović, Dalibor Tatar, Srijita Nundy, Igor Djerdj PREPARATION OF NANOCRYSTALLINE LANTHANIDE-BASED METAL-ORGANIC FRAMEWORKS AND THEIR DERIVATIVES
A-37.	Vanessa Viljevac, Ivan Ćorić, Elvira Kovač Andrić, Valentina Pavić, Vlatka Gvozdić GREEN SYNTHESIS OF SILVER NANOPARTICLES USING THE AQUEOUS EXTRACT OF <i>Fomes fomentarius</i> (L.)

A-38.	Vesna Sokol, Ante Radoš, Boris-Marko Kukovec DETERMINATION OF THE LIMITING CONCENTRATION OF TRIPLE ION FORMATION IN SOLUTIONS OF KBr AND 90 % BUTAN-2-OL
A-39.	Vibor Roje, Ivor Košutić EXTRACTION OF METALS AND METALLOIDS FROM SOIL SAMPLES BY AQUEOUS SOLUTIONS OF AMMONIUM SALTS

Srijeda | Wednesday, 21. 9. 2022.

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B-40.	Aleksandar Bajrović, Petra Gurović, Damir Šahnić LATE APPEARING CRYSTAL POLYMORPHS IN PHARMACEUTICAL INDUSTRY
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B-42.	Andrea Špoljarić, Elvira Vidović INFLUENCE OF TiO ₂ AND SiO ₂ AS CARRIERS FOR IRON NANOPARTICLES ON APPLICATION PROPERTIES OF PLA COMPOSITES
B-43.	Anita Bašić, Ana Herceg, Sandra Svilović, Nenad Kuzmanić IMPACT OF SBT IMPELLER SPEED ON COPPER SORPTION ON ZEOLITE
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B-46.	Domagoj Prlić, Igor Kultan, Ivan Vrban, Ozren Wittine, Eugen Marcelić METHODOLOGY OF SAFETY DEVELOPMENT FOR HYDROGENATION PROCESS
B-47.	Elvira Vidović, Roko Blažić, Domagoj Rebernjak, Katarina Marušić STUDIJA BUBRENJA CELULOZA-g-PDMAEMA HIDROGELOVA
B-48.	Ema Čemerika, Dora Milički, Martina Miloloža, Dajana Kučić Grgić, Vesna Ocelić Bulatović EFFECT OF SPENT COFFEE GROUNDS ON THE PROPERTIES AND BIODEGRABILITY OF BIOCOMPOSITE BASED ON POLYLACTIDE
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B-50.	Irena Krešić, Matko Erceg, Petra Skorić STRUCTURE AND THERMAL PROPERTIES OF PEO/25A/LiBOB NANOCOMPOSITE POLYMER ELECTROLYTES
B-51.	Iva Zokić, Ana Krajina, Luka Dornjak, Jasna Prlić Kardum INFLUENCE OF SOLVENT SYSTEM ON THE CRYSTAL STRUCTURE OF API

B-52.	Jakov Sinti, Roko Blažič, Elvira Vidović PHYSICALLY CROSSLINKED CELLULOSE-BASED HYDROGELS MODIFIED WITH POLY(VINYLPYRROLIDONE)
B-53.	Josip Sacher, Marko Sejdić, Matea Gavran, Nenad Bolf, Željka Ujević Andrijić, Nikola Rimac, Srećko Herceg DETERMINATION OF OPTIMAL COOLING PROFILE OF BATCH COOLING CRYSTALLIZER
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B-59.	Sanja Perinović Jozić, Lucija Karaman, Dražan Jozić, Miće Jakić STRUCTURAL AND THERMAL CHARACTERISATION OF POLY(ETHYLENE OXIDE) BLENDS WITH CALCIUM ALGinate
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B-62.	Tonči Rezić, Matea Zrilić, Roland Ludwig <i>Phanerochaete chrysosporium</i> GLYOXAL OXIDASE REACTIVATION BY COPER ION LOADINGS
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B-64.	Željka Ujević Andrijić, Nikola Rimac, Ines Martić DEVELOPMENT OF SOFT SENSORS USING MACHINE LEARNING METHODS
B-65.	Željka Ujević Andrijić, Srećko Herceg, Nenad Bolf DATA-DRIVEN ESTIMATION OF CRITICAL QUALITY ATTRIBUTES ON INDUSTRIAL PROCESSES

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C-3.	Erika Dobrosravić, Ivona Elez Garofulić, Zoran Zorić, Marija Kristina Josipović, David Kolanović, Verica Dragović-Uzelac ENCAPSULATION OF LAUREL (<i>Laurus nobilis</i> L.) LEAF POLYPHENOLS BY SPRAY-DRYING AND ELECTROSTATIC EXTRUSION
C-4.	Frane Čačić Kenjerić, Anamarija Brkić, Natalija Velić, Darko Velić, Hrvoje Pavlović MACHINE VISION FOR FUNGI GROW MONITORING
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C-6.	Ina Ćorković, Mirta Škraba, Anita Pichler, Josip Šimunović, Mirela Kopjar ENCAPSULATION OF VANILLIN IN ALGINATE/CHITOSAN HYDROGEL BEADS
C-7.	Indira Kosović, Ivana Buljeta, Josip Šimunović, Anita Pichler, Mirela Kopjar CASEIN AND WHEY PROTEINS AS CARRIERS OF CHOKEBERRY PHENOLICS
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C-9.	Ivana Ivić, Ivana Buljeta, Mirela Kopjar, Dubravko Pichler, Josip Mesić, Anita Pichler THE INFLUENCE OF PROCESSING PARAMETERS DURING REVERSE OSMOSIS ON ORGANIC ACIDS RETENTION IN CONVENTIONAL AND ECOLOGICAL CABERNET SAUVIGNON WINE CONCENTRATES
C-10.	Ivana Nikolić, Ljubica Dokić, Biljana Pajin, Zita Šereš, Dragana Šoronja-Simović, Ivana Lončarević, Nikola Maravić, Jovana Petrović, Jana Zahorec RHEOLOGICAL PROPERTIES OF CELLULOSE FAT MIMETIC WITH THE ADDITION OF FRUCTOSE SWEETENERS
C-11.	Josipa Martinović, Gabriela Perković, Gordana Šelo, Ana-Marija Klarić, Mirela Planinić, Marina Tišma, Ana Bucić-Kojić <i>In vitro</i> RELEASE OF PHENOLIC COMPOUNDS FROM ALGINATE/CHITOSAN MICROPARTICLES

C-12.	Jovana Petrović, Biljana Pajin, Dragana Šoronja-Simović, Ivana Lončarević, Antun Jozinović, Dušan Rakić, Ivana Nikolić, Zita Šereš, Nikola Maravić SENSORY CHARACTERISTICS OF COOKIES ENRICHED WITH EXTRUDED SUGAR BEET PULP
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C-19.	Tina Lešić, Ana Vulić, Manuela Zadavec, Nada Vahčić, Irena Perković, Bojan Šarkanj, Nina Kudumija, Jelka Pleadin CONTAMINATION OF CROATIAN TRADITIONAL MEAT PRODUCTS WITH OCHRATOXIN A AND IT'S MOULD PRODUCERS IN RELATION TO REGIONAL WEATHER
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C-21.	Svjetlana Škrabal, Maja Ergović Ravančić, Valentina Obradović, Helena Marčetić, Tanja Abramović ORGANOLEPTIC, PHYSICAL – CHEMICAL AND MICROBIOLOGICAL QUALITY OF FRESH CHEESE ON THE MARKET

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D-23.	Anja Beč, Teo Tomić, Livio Racané, Leentje Persoons, Dirk Daelemans, Mihailo Banjanac, Vedrana Radovanović and Marijana Hranjec SYNTHESIS AND BIOLOGICAL ACTIVITY OF AMIDINO SUBSTITUTED BENZIMIDAZOLES AND BENZOTHIAZOLES
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D-26.	Domagoj Šubarić, Mario Komar, Maja Karnaš, Drago Bešlo, Vesna Rastija SCHIFF BASE DERIVATIVES AS POTENTIAL ACETYLCHOLINESTERASE INHIBITORS – AN <i>in vitro</i> STUDY
D-27.	Dunja Šamec, Bojan Šarkanj, Erna Karalija GINKO (<i>Ginko biloba</i> L.) AS A SOURCE OF BIFLAVONOIDS WITH BIOLOGICAL ACTIVITY
D-28.	Ida Boček, Leentje Persoons, Dirk Daelemans, Mihajlo Banjanac, Vedrana Radovanović, Marijeta Kralj, Katarina Zlatić, Robert Vianello, Marijana Hranjec SYNTHESIS AND BIOLOGICAL ACTIVITY OF NOVEL AMIDINO-SUBSTITUTED IMIDAZO[4,5- <i>b</i>]PYRIDINES
D-29.	Ilija Klarić, Jelena Kovačić, Mario-Livio Jeličić, Ana Mornar, Snježana Zubčić, Daniela Amidžić Klarić TRACE AND HEAVY METAL IMPURITY EVALUATION IN DIETARY SUPPLEMENTS USED IN THE TREATMENT OF INFLAMMATORY BOWEL DISEASE
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D-32.	Josipa Božić, Zvonimir Mlinarić, Lu Turković, Biljana Nigović, Miranda Sertić DEVELOPMENT AND VALIDATION OF A NOVEL CE METHOD FOR SIMULTANEOUS ANALYSIS OF RIBOCICLIB, LETROZOLE AND IBUPROFEN

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Četvrtak | Thursday, 22. 9. 2022.

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E-39.	Luna Maslov Bandić, Kristina Vlahoviček Kahlina, Marija Sigurnjak Bureš, Slaven Jurić OPTIMIZATION OF CAROTENOID EXTRACTION FROM <i>Citrus unshiu</i> PEELS USING GREEN SOLVENTS
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F-63.	Valentina Gluščić, Ranka Godec, Gordana Pehnec, Ivan Bešlić PM _{2.5} CONTENT IN AIR IN WESTERN PART OF CITY ZAGREB
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F-66.	Karlo Josić, Martina Miloloža, Dajana Kučić Grgić AUTOMATED COUNTING OF BACTERIAL COLONIES

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Primarni korisnici ove opreme su javni vodovodi (za dezinfekciju pijaće vode), prehrambena industrija (dezinfekcija vode u procesu proizvodnje hrane), privatni bazeni, banje i javna kupališta (dezinfekcija vode za kupanje u bazenima).



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



Spektrofotometri mjere intenzitet svjetlosti koju apsorbiraju ili emitiraju kemijske tvari.



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

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