


14th **hranom** **do** **zdravlja** **with** **food** **to** **health**



14th International Scientific
and Professional Conference
WITH FOOD TO HEALTH

14. međunarodni
znanstveno-stručni skup
HRANOM DO ZDRAVLJA

KNJIGA SAŽETAKA
BOOK OF ABSTRACTS

**BOOK OF ABSTRACTS |
KNJIGA SAŽETAKA**

*14th International Scientific and Professional
Conference WITH FOOD TO HEALTH*
14. međunarodni znanstveno-stručni skup
HRANOM DO ZDRAVLJA

Published by | Izdavač

*Josip Juraj Strossmayer University of Osijek,
Faculty of Food Tehnology Osijek*
Sveučilište Josipa Jurja Strossmayera u Osijeku,
Prehrambeno-tehnološki fakultet Osijek

Chief Editors | Glavni urednici

Jurislav Babić, Drago Šubarić

**Executive and Technical Editor |
Izvršna i tehnička urednica**

Ivana Lauš

Text prepared by | Tekst pripremili

AUTORI, koji su odgovorni za tekst sažetaka i slike
*AUTHORS, who are fully responsible for the abstracts
and figures*

**Graphic layout |
Grafičko oblikovanje**

Đuro Jelečević, HS Studio d.o.o.

ISBN 978 - 953 - 7005 - 92 - 4
EAN 9789537005924

Osijek, 2023.

*The Conference will be credited as “International Course of the first category” according to
the Rules of Croatian Medical Chamber.*

Skup će biti bodovan kao „Međunarodni tečaj prve kategorije” sukladno Pravilniku Hrvatske
liječničke komore.

The Conference will be credited according to the Rules of Croatian Chamber of Pharmacists.

Skup će biti bodovan sukladno Pravilniku Hrvatske ljekarničke komore.

Organizator / Organizer

Prehrambeno-tehnološki fakultet
Sveučilišta u Osijeku

/ Faculty of Food Technology Osijek
(University of Osijek, Croatia)

Suorganizatori / Coorganizers

Hrvatska agencija za poljoprivredu i
hranu

/ Croatian Agency for Agriculture and Food

Farmaceutski fakultet Univerziteta u Tuzli
(BIH)

/ Faculty of Pharmacy (University of Tuzla,
B&H)

European Hygienic Engineering & Design
Group – EHEDG (Njemačka)

/ European Hygienic Engineering & Design
Group – EHEDG (Germany)

Medicinski fakultet Sveučilišta u Osijeku

/ Faculty of Medicine (University of Osijek,
Croatia)

Komora magistara farmacije Tuzlanskog
kantona (BIH)

/ Chamber of Pharmacists of Tuzla Canton
(Tuzla, B&H)

Fakultet za dentalnu medicinu i
zdravstvo Sveučilišta u Osijeku
(Hrvatska)

/ Faculty of Dental Medicine and Health
(University of Osijek, Croatia)

Prehrambeno-biotehnološki fakultet
Sveučilišta u Zagrebu

/ Faculty of Food Technology and
Biotechnology (University of Zagreb,
Croatia)

Hrvatski zbor nutricionista (Hrvatska)

/ The Croatian Association of Nutritionists
(Croatia)

Fakultet agrobiotehničkih znanosti
Sveučilišta u Osijeku

/ Faculty of Agrobiotechnical Sciences
Osijek (University of Osijek, Croatia)

Udruga narodnog zdravlja Andrija
Štampar, Hrvatska

/ Andrija Štampar – Association of
People's Health (Croatia)

Nastavni zavod za javno zdravstvo
Osječko-baranjske županije (Hrvatska)

/ The Teaching Institute for Public Health
(Osijek, Croatia)

Odjel za Biologiju Sveučilišta u Osijeku

/ Department of Biology (University of
Osijek, Croatia)

Kemijsko-tehnološki fakultet Sveučilišta
u Splitu

/ Faculty of Chemistry and Technology
(University of Split, Croatia)

Fakultet turizma i ruralnog razvoja u Požezi Sveučilišta u Osijeku	/	<i>Faculty of Tourism and Rural Development (University of Osijek, Croatia)</i>
Tehnološki fakultet Univerziteta u Tuzli (BiH)	/	<i>Faculty of Technology (University of Tuzla, B&H)</i>
Agronomski i prehrambeno-tehnološki fakultet Sveučilišta u Mostaru (BiH)	/	<i>Faculty of Agriculture and Food Technology (University of Mostar, B&H)</i>
Akademija tehničkih znanosti Hrvatske	/	<i>Croatian Academy of Engineering (Croatia)</i>
Tehnološki fakultet Zvornik Univerziteta u Istočnom Sarajevu (BIH)	/	<i>Faculty of Technology Zvornik (University of East Sarajevo, B&H)</i>
Udruženje za nutricionizam i dijetetiku (BIH)	/	<i>Association for Nutrition and Dietetics (B&H)</i>
Udruga bivših studenata i prijatelja Prehrambeno-tehnološkog fakulteta Osijek – TehnOS (Hrvatska)	/	<i>Association of former students and friends of the Faculty of Food Technology Osijek – TehnOS (Croatia)</i>
Kineziološki fakultet Osijek Sveučilišta u Osijeku	/	<i>Faculty of Kinesiology (University of Osijek, Croatia)</i>
Studentski zbor Prehrambeno-tehnološkog fakulteta Osijek (Hrvatska)	/	<i>Student Council of the Faculty of Food Technology Osijek (Croatia)</i>
Društvo kemičara i tehnologa Osijek		<i>Association of Chemists and Technologists Osijek</i>

Organizacijski odbor | Organizing Committee

Jurislav Babić (chairman / predsjednik) (Croatia)

Drago Šubarić (vice-chairman / zamjenik predsjednika) (Croatia)

Midhat Jašić (vice-chairman / zamjenik predsjednika) (B&H)

Ivana Lauš (secretary / tajnik) (Croatia)

Đurđica Ačkar (Croatia), Rita Ambrus (Hungary), Ines Banjari (Croatia), Daniela Čačić Kenjerić (Croatia), Ivana Flanjak (Croatia), Ljubica Glavaš-Obrovac (Croatia), Artur Gryszkin (Poland), Stela Jokić (Croatia), Antun Jozinović (Croatia), Draženka Komes (Croatia), Tihomir Kovač (Croatia), Greta Krešić (Croatia), Ante Lončarić (Croatia), Marta Lores (Spain), Mario Lovrić (Austria), Mario Oršolić (Croatia), Mario Panjičko (Croatia), Dunja Paulik (Croatia), Jelka Pleadin (Croatia), Jasmina Ranilović (Croatia), Darja Sokolić (Croatia), Marija Stjepanović (Croatia), Alen Štimac (Croatia), Ivana Tomac (Croatia)

Znanstveni odbor | Scientific Committee

Marijana Blažić (Croatia), Ines Drenjančević (Croatia), Dubravka Havaš Auguštin (Croatia), Mirela Kopjar (Croatia), Valentina Pavić (Croatia), Anita Pichler (Croatia), Martina Smolić (Croatia), Jelena Šarac (Croatia), Dubravka Vitali Čepo (Croatia)

Počasni odbor | Honorary Committee

Ivan Anušić (Croatia), Vili Beroš (Croatia), Luka Burilović (Croatia), Aneda Cipurković (B&H), Sead Čatić (B&H), Matko Erceg (Croatia), Branka Levaj (Croatia), Radovan Fuchs (Croatia), Vlado Guberac (Croatia), Dragan Kovačević (Croatia), Andro Matković (Croatia), Helga Medić (Croatia), Ivica Mihaljević (Croatia), Borislav Miličević (Croatia), Vesnica Mlinarević (Croatia), Vedran Mornar (Croatia), Ivan Ostojić (B&H), Ivan Radić (Croatia), Adaleta Softić (B&H), Darja Sokolić (Croatia), Silvio Špičić (Croatia), Nataša Turić (Croatia), Aleksandar Včev (Croatia), Darija Vranešić Bender (Croatia), Marija Vučković (Croatia), Dragan Vujadinović (B&H), Tanja Žuna Pfeiffer (Croatia)

**PRODUCTION OF SAFE FOOD
AND FOOD WITH ADDED NUTRITIONAL VALUE**

**PROTEIN ISOLATES FROM OILSEED PRESS CAKES: UNLOCKING
THE POTENTIAL FOR SUSTAINABLE NUTRITION**

**Bojana Šarić^{1*}, Branislava Đermanović¹, Aleksandar Marić¹, Jelena Vujetić¹,
Ljiljana Popović², Marijana Sakač¹, Pavle Jovanov¹**

¹*University of Novi Sad, Institute of Food Technology in Novi Sad,
Bulevar cara Lazara 1, 21000 Novi Sad, Serbia*

²*University of Novi Sad, Faculty of Technology in Novi Sad, Bulevar cara Lazara 1,
21000 Novi Sad, Serbia*

**bojana.saric@fins.uns.ac.rs*

poster presentation

Increasing environmental and health concerns regarding consumption of animal proteins have led to an increased interest in alternative protein sources. Oilseed press cakes have emerged as promising protein sources due to their high protein content and potential to promote sustainability in the food industry. Protein isolates derived from these sources are rich in essential amino acids, making them valuable ingredients for developing nutritionally balanced food products. With high protein content and low levels of antinutritional factors, these isolates have great potential to be used in various food items, including baked goods, meat alternatives, and plant-based dairy substitutes. Moreover, their bioactivity extends beyond their nutritional benefits. The presence of bioactive peptides within the isolates contributes to their potential in improving human health, reducing the risk of chronic diseases, and enhancing overall well-being. These protein isolates also exhibit exceptional techno-functional properties such as emulsification, foaming, and gelation. These properties contribute to texture improvement, stability enhancement, and better sensory attributes in food formulations. To ensure the commercial success of oilseed press cake protein isolates, scientific research should be focused on their sensory attributes and consumer acceptance, as well as safety concerns associated with them, including allergenicity, toxicological assessments, and compliance with food regulations.

Keywords: oilseed press cake, protein isolate, nutritionally balanced food, sustainability

Acknowledgment

This work was financially supported by the Ministry of Science, Technological Development and Innovations, Republic of Serbia (Contract No. 451-03-47/2023-01/200222), as well as by the Science Fund of the Republic of Serbia, Grant No 6673, PROTein from Rapeseed Oil Processing Waste: Application in Food and Wastewater Treatment – PROTOPOWER.