


PERSONAL INFORMATION



Ivica Strelec

 Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology Osijek, Franje Kuhača 18, 31000 Osijek, Croatia

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Sex M | Date of birth 29/12/1972 | Nationality Croatian

SCIENTIFIC FIELD(S) & KEYWORDS

(up to 3 fields and up to 10 keywords)

Field(s): biotechnology, food technology, biochemistry

Keywords: biochemistry, food biochemistry, enzymology, proteins and enzymes, enzyme immobilization, protein purification, industrial food waste transformation

RESEARCH DATABASES

WOS <https://www.webofscience.com/wos/author/record/730763>

ORCID <https://orcid.org/0000-0003-3999-8499>

SCOPUS <https://www.scopus.com/authid/detail.uri?authorId=23029106000>

GOOGLE SCHOLAR <https://scholar.google.com/citations?user=6ZcKtt8AAAAJ&hl=en>

CROSB/CRORIS <https://www.croris.hr/crosbi/searchByContext/2/4082>

EDUCATION

15.11.2007.	PhD; Biotechnology Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia	HKO 8.2, EQF 8; QF-EHEA 3 cycle
14.10.2004.	MSc; Chemistry/Biochemistry Faculty of Science, University of Zagreb, Croatia	HKO 8.1, EQF 8; QF-EHEA 2 cycle
03.02.1998.	MEng; Food Technology Faculty of Food Technology, University of Osijek, Croatia	HKO 7.1, EQF 7; QF-EHEA 2 cycle

WORK EXPERIENCE

26.06.2019. - onward	Full professor Faculty of Food Technology, University of Osijek, Franje Kuhača 18, 31000 Osijek, Croatia Science and higher education
31.10.2013. – 26.06.2019.	Associate professor Faculty of Food Technology, University of Osijek, Franje Kuhača 18, 31000 Osijek, Croatia Science and higher education
31.03.2009. – 30.10.2013.	Assistant professor Faculty of Food Technology, University of Osijek, Franje Kuhača 18, 31000 Osijek, Croatia Science and higher education
29.01.2008. – 31.03.2009.	Senior assistant Faculty of Food Technology, University of Osijek, Franje Kuhača 18, 31000 Osijek, Croatia Science and higher education

- 22.11.1999. – 29.01.2008. **Assistant**
Faculty of Food Technology, University of Osijek, Franje Kuhača 18, 31000 Osijek, Croatia
Science and higher education
- 01.05.1998. – 22.11.1999. **Engineer - trainee**
Saponia d.d. Osijek, Matije Gupca 2, 31000 Osijek, Croatia
Detergent and personal hygiene products production

**THE MOST RELEVANT
PEER REVIEW
PUBLICATIONS IN THE
LAST 5 YEARS**
(up to 10 publications)

- Strelec, Ivica**, Katarina Peranović, Marta Ostojčić, Krunoslav Aladić, Hrvoje Pavlović, Igor Djerdj, Dalibor Tatar, Nikola Maravić, Željko Skoko, and Sandra Budžaki. **2024**. "Eggshell Waste Transformation to Calcium Chloride Anhydride as Food-Grade Additive and Eggshell Membranes as Enzyme Immobilization Carrier." *Green Processing and Synthesis* 13 (1). <https://doi.org/10.1515/gps-2023-0254>.
IF (2022) = 4.3 **Quartile: Q2**
- Strelec, Ivica**, Vladimir Mrša, Dragana Šoronja Simović, Jovana Petrović, Jana Zahorec, and Sandra Budžaki. **2024**. "Biochemical and Quality Parameter Changes of Wheat Grains during One-Year Storage under Different Storage Conditions." *Sustainability* 16 (3): 1155. <https://doi.org/10.3390/su16031155>.
IF (2024) = 3.9 **Quartile: Q2**
- Brekalo, Mirna, Blanka Bilić Rajs, Krunoslav Aladić, Lidija Jakobek, Zita Šereš, Saša Krstović, Stela Jokić, Sandra Budžaki, and **Ivica Strelec**. **2023**. "Multistep Extraction Transformation of Spent Coffee Grounds to the Cellulose-Based Enzyme Immobilization Carrier." *Sustainability* 15 (17): 13142. <https://doi.org/10.3390/su151713142>.
IF (2022) = 3.9 **Quartile: Q2**
- Strelec, Ivica**, Klara Tomičić, Marko Zajec, Marta Ostojčić, and Sandra Budžaki. **2023**. "Eggshell-Waste-Derived Calcium Acetate, Calcium Hydrogen Phosphate and Corresponding Eggshell Membranes." *Applied Sciences* 13 (13): 7372. <https://doi.org/10.3390/app13137372>.
IF (2022) = 2.8 **Quartile: Q2**
- Budžaki, Sandra, Natalija Velić, Marta Ostojčić, Marija Stjepanović, Blanka Bilić Rajs, Zita Šereš, Nikola Maravić, Jovana Stanojev, Volker Hessel, and **Ivica Strelec**. **2022**. "Waste Management in the Agri-Food Industry: The Conversion of Eggshells, Spent Coffee Grounds, and Brown Onion Skins into Carriers for Lipase Immobilization." *Foods* 11 (3): 409. <https://doi.org/10.3390/foods11030409>.
IF (2022) = 5.2 **Quartile: Q1**
- Jakobek, Lidija, **Ivica Strelec**, Daniela Kenjerić, Lidija Šoher, Ivana Tomac, and Petra Matić. **2022**. "Simulated Gastric and Intestinal Fluid Electrolyte Solutions as an Environment for the Adsorption of Apple Polyphenols onto β -Glucan." *Molecules* 27 (19): 6683. <https://doi.org/10.3390/molecules27196683>.
IF (2022) = 4.6 **Quartile: Q2**
- Lončarić, Melita, **Ivica Strelec**, Valentina Pavić, Vesna Rastija, Maja Kamaš, and Maja Molnar. **2022**. "Green Synthesis of Thiazolidine-2,4-Dione Derivatives and Their Lipoxygenase Inhibition Activity With QSAR and Molecular Docking Studies." *Frontiers in Chemistry* 10 (July). <https://doi.org/10.3389/fchem.2022.912822>.
IF (2022) = 5.5 **Quartile: Q2**
- Šafranko, Silvija, Anamarija Stanković, Sugato Hajra, Hoe-Joon Kim, **Ivica Strelec**, Maja Dutour-Sikirić, Igor Weber, et al. **2021**. "Preparation of Multifunctional N-Doped Carbon Quantum Dots from Citrus Clementina Peel: Investigating Targeted Pharmacological Activities and the Potential Application for Fe³⁺ Sensing." *Pharmaceuticals* 14 (9): 857. <https://doi.org/10.3390/ph14090857>.
IF (2021) = 5.215 **Quartile: Q2**
- Kovač, Tihomir, Ivana Borišev, Marija Kovač, Ante Lončarić, Frane Čačić Kenjerić, Aleksandar Djordjevic, **Ivica Strelec**, et al. **2020**. "Impact of Fullerol C₆₀(OH)₂₄ Nanoparticles on the Production of Emerging Toxins by *Aspergillus Flavus*." *Scientific Reports* 10 (1): 725. <https://doi.org/10.1038/s41598-020-57706-3>.
IF (2020) = 4.379 **Quartile: Q1**
- Lončarić, Melita, **Ivica Strelec**, Valentina Pavić, Domagoj Šubarić, Vesna Rastija, and Maja Molnar. **2020**. "Lipoxygenase Inhibition Activity of Coumarin Derivatives—QSAR and Molecular Docking Study." *Pharmaceuticals* 13 (7): 154. <https://doi.org/10.3390/ph13070154>.
IF (2020) = 5.683 **Quartile: Q1**

**ONGOING AND FINISHED
PROJECTS****Project leader**[Young Researchers' Career Development Project – Training New Doctoral Students](#)

Funding: Croatian Science Foundation Project duration: 12.10.2021.-11.10.2025.

[Transformation of Eggshell Waste to Value-Added Products](#)

Funding: Osijek-Baranja County Project duration: 22.12.2020. – 22.12.2021.

[Applicability of Fluorescence Spectroscopy for Honey Botanical Origin Identification](#)

Funding: Osijek-Baranja County Project duration: 1.12.2018. – 1.12.2019.

[Inhibition of aflatoxin synthesis by fullerenes](#)

Funding: Josip Juraj Strossmayer University of Osijek Project duration: September 2013. – September 2014.

Project researcher[Immobilization of Lipases on Functionalised Carriers Produced from Selected Agro-Food Industrial Waste](#)

Funding: Croatian Science Foundation Project duration: 18.1.2021. – 17.1.2025.

[Reducing Food Waste and Rescue Surplus Food Supplies – “ReS-FOOD”](#)

Funding: Co-funded by EU Project duration: 1.11.2022. – 31.10.2024.

[Bioconversion of lignocellulosic materials to value added feed](#)

Funding: European regional development fund (ERDF) Project duration: 20.12.2019. – 20.6.2023.

[Development and Implementation of the Interdisciplinary Graduate Study Programme “Biotechnology” in English](#)

Funding: European Social Fund (ESF) Project duration: 12.10.2018. – 12.10.2020.

[Synergistic Mixtures in Antifungal and Antimycotoxigenic Food Protection](#)

Funding: Ministry of Science Project duration: 2007. – 2013.

[Improvement of Quality, Shelf Life and Functionality of Wheat-Based Products](#)

Funding: Ministry of Science Project duration: 2007. – 2013.

[Production Promotion of Nutritive and Highly-Valuable Food](#)

Funding: Ministry of Science Project duration: 2002. – 2006.

HONORS AND AWARDS[Award for Academic Achievements](#)

Granted by Faculty of Food Technology Osijek Year: 2021

[Certificate of Appreciation for the valuable contribution to the aims of ICC](#)

Granted by International Association of Cereal Science and Technology Year: 2019

[Certificate of Appreciation for the successful organization of the 7th International Congress „Flour-Bread '13“](#)

Granted by International Association of Cereal Science and Technology Year: 2013

MEMBERSHIPS[International Association of Cereal Science and Technology](#)

2019 - onward Function: National Deputy Delegate

[Croatian Society of Biochemistry and Molecular Biology \(HDBMB\)](#)

2000 - onward Function: Member

2019 - onward Function: Coordinator of Osijek branch

[Croatian Society of Chemical Engineers](#)

2000 - onward Function: Member

[Croatian Microbiological Society](#)

2009 - onward Function: Member

[Global Harmonization Initiative](#)

2017 - onward Function: Member

**ADMINISTRATIVE
EXPERIENCE****University Level**

Committee for publishing issues

1.11.2018. - onward Function: Member

Faculty Level

Department of Applied Chemistry and Ecology

1.10.2021. - 30.9.2023. Function: Head of Department

Sub-department of Applied Chemistry, Biochemistry and Instrumental Methods

1.10.2020. - 30.9.2021. Function: Head of sub-department

Sub-department of Biochemistry and Toxicology

1.10.2018. - 30.9.2020. Function: Head of sub-department

Sub-department of Biochemistry and Toxicology

1.10.2014. - 30.09.2016. Function: Head of sub-department

Department of Applied Chemistry and Ecology

1.10.2012. - 30.09.2014. Function: Head of Department

Committee for publishing issues

1.10.2014. - onward Function: President

Committee for acknowledgements

17.12.2013. - onward Function: President

Commission for postgraduate specialist study programme Nutrition

28.9.2012. - onward Function: Member

**ORGANIZATIONAL
EXPERIENCE***(congresses, workshops, events)*

International Congress of the Croatian Society of Biochemistry and Molecular Biology HDBMB22: From Science to Knowledge (Brela, Croatia)

28.9. - 1.10.2022. Function: Member of the Scientific Committee

1st TwiNSol-CECs Workshop: Advance multicomponent analyses and novel solutions for protection of environmental resources with contaminants of emerging concern in focus (Novi Sad, Serbia)

20. - 21.10.2022. Function: Member of the Scientific Committee

1st International Conference Food Industry By-Products (Kopački rit, Croatia)

26.6.2020. Function: Member of the Scientific and Organizing Committee

10th International Congress „Flour-Bread '19“ and 12th Croatian Congress of Cereal Technologists (Osijek, Croatia)

11. - 14.6.2019. Function: President of the Organizing Committee

9th International Congress „Flour-Bread '17“ and 11th Croatian Congress of Cereal Technologists (Opatija, Croatia)

25. - 27.10.2017. Function: President of the Organizing Committee

7th International Congress „Flour-Bread '13“ and 9th Croatian Congress of Cereal Technologists (Opatija, Croatia)

16. - 8.10.2013. Function: Member of the Organizing Committee

6th International Congress „Flour-Bread '11“ and 8th Croatian Congress of Cereal Technologists (Opatija, Croatia)

12. - 14.10.2011 Function: Member of the Organizing Committee

International Congress „Power of Microbes in Industry and Environment 2010“ (Malinska, Croatia)

22. - 25.9.2010. Function: Member of the Organizing Committee

5th International Congress „Flour-Bread '09“ and 7th Croatian Congress of Cereal Technologists (Opatija, Croatia)

21. - 23.10.2009. Function: Member of the Organizing Committee

Congress of the Croatian Society of Biochemistry and Molecular Biology with international participation, HDBMB 2008 (Osijek, Croatia)

17. - 20.09.2008 Function: Congress Secretary and Member of the Organizing Committee

OTHER ACADEMIC
ACHIEVEMENTS

Book Chapters

Stjepanović, Marija; Budžaki, Sandra; Velić, Natalija; Ostojčić, Marta; Šereš, Zita; Maravić, Nikola; Brekalo, Mira; **Strelec, Ivica**: Valorizacija i karakterizacija otpadne biomase crvenog luka // Neke mogućnosti iskorištenja nusproizvoda prehrambene industrije / Šubarić, Drago; Jozinović, Antun; Panjičko, Mario (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2022. p. 349-363

Maravić, Nikola; Šoronja-Simović, Dragana; Pajin, Biljana; Budžaki, Sandra; **Strelec, Ivica**; Fišteš, Aleksandar; Velić, Natalija; Šurlan, Jelena; Šereš, Zita: Proizvodnja pektina šećerne repe i njegova primjena // Neke mogućnosti iskorištenja nusproizvoda prehrambene industrije / Šubarić, Drago; Jozinović, Antun; Panjičko, Mario (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2022. p. 139-158

Strelec, Ivica; Ostojčić, Marta; Budžaki, Sandra: Transformacija ljuske kokošnjih jaja u proizvode dodane vrijednosti // Neke mogućnosti iskorištenja nusproizvoda prehrambene industrije - Knjiga 3 / Šubarić, Drago; Miličević, Borislav (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku; Sveučilište u Požegi, 2021. p. 303-327

Budžaki, Sandra; Ostojčić, Marta; **Strelec, Ivica**: Heterogeni biokatalizatori na bazi otpada/nusproizvoda prehrambene industrije za održivu proizvodnju biodizela // Neke mogućnosti iskorištenja nusproizvoda prehrambene industrije – Knjiga 2 / Šubarić, Drago; Babić, Jurislav (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2019. p. 241-258

Editorial Board of the
Scientific Journals

Croatian Journal of Food Science and Technology (2019 – onward)

Editor of Congress
Proceedings

Proceedings of the 10th International Congress Flour – Bread '19 / 12th Croatian Congress of Cereal Technologists Brašno – Kruh '19 / **Strelec, Ivica**; Jozinović, Antun; Budžaki, Sandra (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2020

Proceedings of the 9th International Congress Flour – Bread '17 / 11th Croatian Congress of Cereal Technologists Brašno – Kruh '17. / Jozinović, Antun; Budžaki, Sandra; **Strelec, Ivica** (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2018

Editor of Congress Abstract
Books

10th International Congress Flour – Bread '19/ 12th Croatian Congress of Cereal Technologists Brašno – Kruh '19 Book of Abstracts / Jozinović, Antun; Budžaki, Sandra; **Strelec, Ivica**; Lončarić, Ante (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2019

9th International Congress Flour – Bread '17 / 11th Croatian Congress of Cereal Technologists Brašno – Kruh '17, Book of Abstracts / Jozinović, Antun; Budžaki, Sandra; **Strelec, Ivica** (ur.). Osijek: Prehrambeno tehnološki fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, 2017

HDBMB2008 Congress of the Croatian Society of Biochemistry and Molecular Biology with international participation; Book of Abstracts / **Strelec, Ivica**; Glavaš-Obrovac, Ljubica (ur.). Osijek: Hrvatsko društvo za biokemiju i molekularnu biologiju (HDBMB), 2008