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Gordana Šelo

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WORK EXPERIENCE

23/11/2022 – CURRENT Osijek, Croatia

POSTDOCTORAL RESEARCHER FACULTY OF FOOD TECHNOLOGY OSIJEK

Current research is in the field of:

- extraction of bioactive compounds from biologically treated agricultural waste and food industry waste,
- improvement of bioavailability and bioaccessibility of phenolic compounds using different encapsulation methods and natural coatings.

01/12/2016 – 23/11/2022 Osijek, Croatia

RESEARCH ASSISTANT FACULTY OF FOOD TECHNOLOGY OSIJEK

Teaching assistant in the Sub-department of mechanical, thermal and separation processes (Department of Process Engineering)
Courses:

- Heat and Mass Transfer
- Unit Operations in Food Engineering
- Unit Operations in Process Engineering
- Process Ecological Engineering

11/04/2016 – 30/11/2016 Vinkovci, Croatia

FOOD TECHNOLOGIST PEKAR LTD

- modification of existing products and processes and development of new ones
- monitoring and controlling the production process of bakery products
- verification and improvement of safety and quality control, from the initial phase to the final product

17/12/2014 – 20/02/2016 Osijek, Croatia

UNIVERSITY RESEARCH ASSISTANT FACULTY OF FOOD TECHNOLOGY OSIJEK

- experience in the project ProBioTech financed by EU structural funds (http://www.ptfos.unios.hr/probiotech/hr/)
- cultivation of different microorganisms by submerged and solid-state fermentation processes in tray bioreactor and horizontal bioreactor with stirrer
- production of biogas in pilot plant
- analysis of different products by TOC, UHPLC and UV-VIS spectrophotometer

EDUCATION AND TRAINING

20/09/2023 – 21/09/2023 Zagreb, Croatia

GREENERING BUBBLE WORKSHOP Faculty of Food Technology and Biotechnology, University of Zagreb

Greenering Bubble workshop: *The possibility of plant extracts preparation by applying the green extraction solvents with hands-on: deep eutectic solvents*.

2017 – 2022 Osijek, Croatia
PHD STUDENT AT POSTGRADUATE UNIVERSITY STUDY FOOD TECHNOLOGY AND NUTRITION Faculty of Food Technology Osijek

Thesis Development of Biological Treatment and Fractionation of Grape Pomace for the Recovery of Phenolic Compounds

2012 – 2014 Osijek, Croatia
MSC IN PROCESS ENGINEERING Faculty of Food Technology Osijek

2007 – 2012 Osijek, Croatia
BSC IN FOOD TECHNOLOGY Faculty of Food Technology Osijek

06/07/2017 – 07/07/2017 Zagreb, Croatia
XVII. INTERNATIONAL CHROMATOGRAPHY SCHOOL University of Zagreb, Faculty of Chemical Engineering and Technology

01/09/2017 – 13/10/2017 Ljubljana, Slovenia
PROFESSIONAL DEVELOPMENT Jozef Stefan Institute, Department of Ecology

Website http://www.environment.si//

25/09/2017 – 27/09/2017 Ljubljana, Slovenia
ISO-FOOD SUMMER SCHOOL ON TRACE ELEMENT SPECIATION IN FOOD ("ELEMENTAL SPECIATION IN FOOD") Jozef Stefan Institute

20/06/2013 – 20/09/2013 Prague, Czechia
PROFESSIONAL PRACTICE Institute of Chemical Technology in Prague, Department of Microbiology and Biochemistry

Website https://www.vscht.cz/?jazyk=en

LANGUAGE SKILLS

Mother tongue(s): **CROATIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
GERMAN	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Publications (full list available at: https://www.croris.hr/crosbi/searchByContext/2/33657)

- Perković G, Planinić M, **Šelo G**, Martinović J, Nedić R, Puš M, Bucić-Kojić A (2024) Optimisation of the Encapsulation of Grape Pomace Extract by Spray Drying Using Goat Whey Protein as a Coating Material. Coatings, 14(9):1101. doi:10.3390/coatings14091101.

- **Šelo G**, Planinić M, Tišma M, Klarić AM, Bucić-Kojić A (2024) Effects of Fungal Solid-State Fermentation on the Profile of Phenolic Compounds and on the Nutritional Properties of Grape Pomace. Microorganisms, 12(7):1310. doi:10.3390/microorganisms12071310.

- Martinović J, Ambrus R, Planinić M, **Šelo G**, Klarić AM, Perković G, Bucić-Kojić A (2024) Microencapsulation of Grape Pomace Extracts with Alginate-Based Coatings by Freeze-Drying: Release Kinetics and In Vitro Bioaccessibility Assessment of Phenolic Compounds. Gels, 10(6):353. doi:10.3390/gels10060353.

- Perković G, Martinović J, **Šelo G**, Bucić-Kojić A, Planinić M, Ambrus R (2024) Characterization of Grape Pomace Extract Microcapsules: The Influence of Carbohydrate Co-Coating on the Stabilization of Goat Whey Protein as a Primary Coating. Foods, 13(9):1346. doi:10.3390/foods13091346.

- **Šelo G**, Planinić M, Tišma M, Martinović J, Perković G, Bucić-Kojić A. Bioconversion of Grape Pomace with *Rhizopus oryzae* under Solid-State Conditions: Changes in the Chemical Composition and Profile of Phenolic Compound. Microorganisms, 11(4):956, 2023. doi:10.3390/microorganisms11040956.

- **Šelo G**, Planinić M, Tišma M, Grgić J, Perković G, Koceva Komlenić D, Bucić-Kojić A (2022) A Comparative Study of the Influence of Various Fungal-Based Pretreatments of Grape Pomace on Phenolic Compounds Recovery. Foods, 11(11):1665. doi:10.3390/foods11111665

- Bucić-Kojić A, Tišma M, **Šelo G**, Grgić J, Perković G, Planinić M (2022) Winery Production Residues as Feedstocks within the Biorefinery Concept. Engineering Power, 17(1):11-17.

- **Šelo G**, Planinić M, Tišma M, Tomas S, Koceva Komlenić D, Bucić-Kojić A (2021) A Comprehensive Review on Valorization of Agro-Food Industrial Residues by Solid-State Fermentation. Foods 10(5):927, 26. doi:10.3390/foods10050927

- Tišma M, Žnidaršič-Plazl P, **Šelo G**, Tolj I, Šperanda M, Bucić-Kojić A, Planinić M (2021) *Trametes versicolor* in lignocellulose-based bioeconomy: State of the art, challenges and opportunities. Bioresource technology, 330, 124997, 13. doi:10.1016/j.biortech.2021.124997

- Tišma M, Šalić A, Planinić M, Zelić B, Potočnik M, **Šelo G**, Bucić Kojić A (2020) Production, characterisation and immobilization of laccase for an efficient aniline based dye decolourization. J Water Proc. Eng . 36, 101327.

- Bucić-Kojić A, Fernandes F, Silva T, Planinić M, Tišma M , **Šelo G**, Šibalić D, Pereira, DM, Andrade PB (2020) Enhancement of the anti inflammatory properties of grape pomace treated by *Trametes versicolor*. Food Funct. 11, 680-688.

- Bucić-Kojić A, **Šelo G**, Zelić B, Planinić M, Tišma M (2017) Recovery of phenolic acid and enzyme production from corn silage biologically treated by *Trametes versicolor*. Applied Biochemistry and Biotechnology, 181(3), 948-960.

DRIVING LICENCE

Driving Licence: B

OTHER SKILLS

Computer skills

- Good command of Microsoft Office™ tools and SigmaPlot

ADDITIONAL INFORMATION

Scientific and Organising Committee Member

- Member of the Scientific and Organising Committee at the International conference 17th Ružička days "Today science - tomorrow industry", September 19-21, 2018, Vukovar, Croatia.

- Member of the technical editorial board of the *Croatian Journal of Food Science and Technology* (CJFST) published by Faculty of Food Technology Osijek, Josip Juraj Strossmayer University of Osijek (9/2022 - current).

Associate in scientific projects:

1. Inovative production of organic fertilizers and substrates for growing seedlings; European regional development fund (ERDF) (project duration: 2019. - 2022.)
2. Bioconversion of lignocellulosic materials into high value feed; European regional development fund (ERDF) (project duration: 2019. - 2022.)
3. Development of a sustainable integrated process for the production of bioactive isolates from food industry residues; Croatian Science Foundation (project duration: 2018. - 2022.)
4. Croatian-Hungarian bilateral project; Encapsulation of extracts rich in polyphenols from production residues of the food industry and characterization of encapsulated particles (project duration: 2021. - 2023.)
5. Chinese-Croatian bilateral project; Isobutanol production from lignocellulosic materials (project duration: 2019. - 2021.)

6. Biotransformation of solid winery waste into biologically active products; OTP bank Croatia (project duration: 2017. - 2017.)
7. Development of innovative process of agricultural waste biological treatment in biogas production "ProBioTech"; European regional development fund (ERDF) (project duration: 2014. - 2016.)