

PERSONAL INFORMATION

Marina Tišma

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Sex F | Date of birth 04/04/1977 | Nationality Croatian

WORK EXPERIENCE

2016. -

Associate Professor

Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology Osijek
Bologna 2nd Cycle Programme (University Study Programme of Process Engineering), courses: Mass and Energy Balances, Chemical and Biochemical Reactors, Industrial Ecology, Ecological Process Engineering
Bologna 3rd Cycle Programme (Doctoral Programme Food Technology and Nutrition), course: Food Industry Waste Management

Josip Juraj Strossmayer University of Osijek, The Department of Biology
Bologna 3rd Cycle Programme (Interdisciplinary Doctoral Programme of Molecular Biosciences), course: Application of White-rot Fungi in Biotechnology

2011. - 2016.

Assistant Professor

Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology Osijek
Bologna 2nd Cycle Programme (University Study Programme of Process Engineering), courses: Chemical and Biochemical Reactors, Industrial Ecology

2013. – 2016.

University of Mostar, Faculty of Agriculture and Food Technology, Bosnia and Herzegovina
Bologna 2nd Cycle Programme (University Study Programme of Food Engineering), course: Malt and Beer Technology

2010. - 2011.

Senior Assistant

Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology Osijek
Bologna 2nd Cycle Programme (University Study Programme of Process Engineering), courses: Chemical and Biochemical Reactors, Industrial Ecology, Basic Concepts in Bioprocess Engineering, Bioprocesses in Environmental Protection, Wastewater treatment,)

2005. - 2010.

Assistant

Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology Osijek
Bologna 2nd Cycle Programme (University Study Programme of Process Engineering), courses: Chemical and Biochemical Reactors, Industrial Ecology

2002. - 2005.

Chief of the laboratory for barley and malt quality control

Slavonija slad d.o.o., Urije bb, 35 400 Nova Gradiška

EDUCATION AND TRAINING

16. 6. 2011.

Pedagogical – psychological and didactic - methodological education

Josip Juraj Strossmayer University of Osijek Faculty of Education

5. 7. 2010.

PhD in Biotechnology

University of Zagreb, Faculty of Food Technology and Biotechnology

3. 4. 2008. **MSc in Biochemical Engineering**
University of Zagreb, Faculty of Food Technology and Biotechnology

8. 3. 2001. **BSc in Biochemical Engineering**
University of Zagreb, Faculty of Food Technology and Biotechnology

PERSONAL SKILLS

Mother tongue Croatian

Other languages	UNDERSTANDING		UNDERSTANDING		UNDERSTANDING
	Listening	Listening	Listening	Listening	Listening
English	C1	C1	C1	C1	C1
German	B2	B2	B2	B2	B2
Italian	A2	A2	A2	A2	A2

Organisational / managerial skills Head of Department of Process Engineering, 2017. – 2019.
Coordinator of graduation study of Process Engineering, Faculty of Food Technology Osijek, 2012. – 2019.
Member of Organization Board of Science Festival, 2011., 2012. i 2013.
President of the Supervisory Authority, Centre of competence for eco-technology, Brodarski Institute, Zagreb, Croatia 2012. - 2015.
Chief of the laboratory for barley and malt quality control, 2002. – 2005.; HACCP team leader 2004. And 2005., Slavonija slad d.o.o.

Computer skills Good command of Microsoft Office™ tools, SigmaPlot, Scientist

Hobby Piano playing, hiking

Driving licence B

ADDITIONAL INFORMATION

Projects

Project leader

"Development of innovative process of agricultural waste biological treatment in biogas production - ProBioTech" co-funded by European regional development fund (ERDF); (project duration: 21.10. 2014. – 20. 2. 2016.).

Associate in scientific projects:

1. Development and Establishment of Graduate study „Biotechnology in English“, European Social Fund, 2018. - 2020.
2. Development of a sustainable integrated process for the production of bioactive isolates from food industry residues (POPI-WinCEco); Croatian Science Foundation; 2018 – 2022.
3. Development of integrated micro-system based biocatalytic process for biodiesel production; foundation source: Croatian Science Foundation; 2019 – 2021.
4. Influence of biological treatment of grape pomace on extraction of polyphenols“; foundation source: Josip Josip Juraj Strossmayer University of Osijek; 2013 - 2014
5. Sustainable bioseparation processes; funding source: Croatian Science Foundation, 2009 - 2012.
6. Biocatalyst and biotransformation125-1252086-2793; bilateral project; foundation source: Ministry of Science, Education and Sport of Croatia, 2008 – 2013.
7. Health safety improvement in cereal production and processing; foundation source: Ministry of Science, Education and Sport of Croatia, 2008 – 2013.
8. Biotransformations and bioseparation processes; bilateral project; foundation source: Ministry of Science, Education and Sport of Croatia and Javna agencija za raziskovalno dejavnost Republike Slovenije, 2006.– 2007.

Training/mobility

University College of London, Department for Biochemical Engineering

Giving lectures at Biochemical Reaction Engineering module (Bachelor studies) and Bio-microfluidics and Microsystem Engineering module (Master studies) and seminars; grant: Erasmus; duration: 11/2018 (10 days)

The Institute of Chemical Process Fundamentals (ICPF), Czech Academy of Sciences, Prague, Czech Republic

1. Giving lectures at Doctoral Program of Physical Chemistry at the University of Chemistry and Technology; grant: Erasmus; duration: 6/2016 (10 days)
2. Research within project „Membrane separation – the more effective separation of a pure enantiomer from a racemic mixture“; grant:; Czech National grant No =106/12/0569; project leader: Dr. Pavel Izák; duration: 8/2012 – 9/2012
3. Training in the field of butanol separation using membrane separation processes with ionic liquids; grant: ICPF; duration: 6/2007 – 7/2007

University of Calabria, Department of Computer Engineering, Modeling, Electronics and Systems, Laboratory of Transport Phenomena and Biotechnology, Rende, Italy

Giving lectures; grant: Erasmus; duration: 5/2014 (10 days)

Department of Chemical, Biochemical and Environmental Engineering, Faculty for Chemistry and Chemical Technology, University of Ljubljana, Ljubljana, Slovenia

1. Giving lectures at graduation studies of Chemical Engineering and Biochemistry Kemijsko inženjerstvo i Biokemija (prof. Polona Žnidaršič-Plazl); grant: Erasmus; duration: 1/2013
2. Work on Master Thesis (supervisors: prof. Žnidaršič-Plazl, prof. Igor Plazl); duration: periodically in 2006. i 2007.

Institute for Biotechnology and Bioengineering, Centre for Biological and Chemical Engineering, Department of Bioengineering, Instituto Superior Técnico, Universidade Technica de Lisboa, Lisbon, Portugal

Training in the field of enzyme immobilization, enzyme kinetics, biotransformations; grant: Erasmus; duration: 9/2011 – 10/2011.

University Babes Bolyai, Faculty of Economics; Institute of technology, Cluj Napoca, Romania

Giving lectures in the field of Industrial Ecology; grant: CEEPUS; duration: 9/2010 (10 days)

Invited lectures

European Biotechnology Congress, EuroBiotech 2019, Valencia, Spain, 2019
 European Biotechnology Congress - EuroBioTech 2017, Dubrovnik, Croatia, 2017
 9th International Congress "Flour-Bread '17" and the 11th Croatian Congress of Cereal Technologists "Brašno-Kruh '17, Opatija, Croatia, 2017.
 24. hrvatski skup kemičara i kemijskih inženjera, Zagreb, Croatia, 2015.

Organization or Scientific Board Member

European Biotechnology Congress, EuroBiotech 2019, Valencia, Spain, 2019
 10th International Congress "Flour-Bread '19" and the 12th Croatian Congress of Cereal Technologists "Brašno-Kruh '19, Osijek, Hrvatska, 2019.
 Natural Resources, Green Technology and Sustainable Development – GREEN/3, Zagreb, 2018.
 9th International Congress "Flour-Bread '17" and the 11th Croatian Congress of Cereal Technologists "Brašno-Kruh '17, Opatija, Croatia, 2017.
 Implementation of microreactor technology in biotechnology – IMTB 2015, Opatija, Croatia

Memberships

TechnOS, Croatian Society of Chemists and Chemical Engineers (HDKI), European Federation of Biotechnology, Asia-Pacific Chemical, Biochemical and Environmental Engineering Society (APCBES)

Honours and awards

Annual Award of the Faculty of Food Technology Osijek for 2014.

SELECTED PUBLICATIONS

(full list available at:
<http://bib.irb.hr/lista-radova?autor=274504>)

2019

Tišma, Marina; Tadić, Toma; Budžaki, Sandra; Ostojčić, Marta; Šalić, Anita; Zelić, Bruno; Tran, Nghiep Nam; Ngothai, Yung; Hessel, Volker. Lipase production by solid-state cultivation of *Thermomyces lanuginosus* on by-products from cold-pressing oil production. *Processes*. 7, 7.
 Kovačić, Đurđica; Kralik, Davor; Rupčić, Slavko; Jovičić, Daria; Spajić, Robert; **Tišma, Marina**. Electroporation of harvest residues for enhanced biogas production in anaerobic co-digestion with dairy cow manure. *Bioresource Technology*. 274, 215-224.
 Budžaki, Sandra; Sundaram, Smitha; **Tišma, Marina;** Hessel, Volker. Cost analysis of oil cake-to-biodiesel production in packed bed micro-flow reactors with immobilized lipases. *Journal of Bioscience and Bioengineering*. 128 (1), 98-102.

2018

Tran, Nghiep Nam, **Tišma, Marina;** Budžaki, Sandra; McMurchie, Edward J; Morales Gonzalez, Olivia Maria; Hessel, Volker, Ngothai, Yung. *Applied Energy*. 210, 142-150.
Tišma, Marina; Jurić, Anita; Bucić-Kojić, Ana; Panjičko, Mario; Planinić, Mirela. Biovalorization of brewers' spent grain for the production of laccase and polyphenols. *Journal of the Institute of Brewing*. 124 (2) 182-186.
 Šalić, Anita; Strelec, Ivica; Zelić, Bruno; **Tišma, Marina**. Potential use of apple polyphenol oxidase for bioremediation of phenolic contaminants. *Kemija u industriji: časopis kemičara i tehnologa Hrvatske*. 67 (3-4), 109-116.
 Budžaki, Sandra; Miljić, Goran; Sundaram, Smitha; **Tišma, Marina;** Hessel, Volker. Cost analysis of enzymatic biodiesel production in small-scaled packed-bed reactors. *Applied Energy*. 210, 268-278.
 Kovačić, Đurđica; Kralik, Davor; Jovičić, Daria; Rupčić, Slavko; Popović, Brigita; **Tišma, Marina**. Thermal pretreatment of harvest residues and their use in anaerobic co-digestion with dairy cow manure. *Applied Biochemistry and Biotechnology*. 184 (2), 471-483.
Tišma, Marina; Planinić, Mirela; Bucić-Kojić, Ana; Panjičko, Mario; Zupančić, Drago Gregor; Zelić, Bruno. Corn silage fungal-based solid-state pretreatment for enhanced biogas production in anaerobic co-digestion with cow manure. *Bioresource Technology*. 253, 220-226.

- 2017
- Kovačić, Đurđica; Kralik, Davor; Rupčić, Slavko; Jovičić, Darija; Spajić, Robert; **Tišma, Marina**. Soybean straw, corn stover and sunflower stalk as possible substrates for biogas production in croatia: a review. *Chemical and Biochemical Engineering Quarterly*. 31(3), 187-198.
- Panjičko, Mario; Zupančič, Gregor Drago; Fanelj, Lijana; Marinšek Logar, Romana; **Tišma, Marina**; Zelić, Bruno. Biogas production from brewery spent grain as a mono-substrate in a two-stage process composed of solid-state anaerobic digestion and granular biomass reactors. *Journal of Cleaner Production*. 166, 519-529.
- Budžaki, Sandra; Miljić, Goran; **Tišma, Marina**; Sundaram, Smitha; Hessel, Volker. Is there a future for enzymatic biodiesel industrial production in microreactors? *Applied Energy*. 201, 124–134.
- Bucić-Kojić, Ana; Šelo, Gordana; Zelić, Bruno; Planinić, Mirela; **Tišma, Marina**. Recovery of phenolic acid and enzyme production from corn silage biologically treated by *Trametes versicolor*. *Applied Biochemistry and Biotechnology*. 181(3), 948-960.
- 2016
- Planinić, Mirela; Zelić, Bruno; Čubel, Ivan; Bucić-Kojić, Ana; **Tišma, Marina**. Corn forage biological pretreatment by *Trametes versicolor* in a tray bioreactor. *Waste Management & Research*. 34 (8), 802-809.
- 2015
- Budžaki, Sandra; Šalić, Anita; Zelić, Bruno; **Tišma, Marina**. Enzyme catalyzed biodiesel production from edible and waste cooking oil. *Chemical and Biochemical Engineering Quarterly*. 9 (3), 329-333.
- Jurić, Anita; Čorić, Nevena; Odak, Andrea; Herceg, Zoran; **Tišma, Marina**. Analysis of total polyphenols, bitterness and haze in lager pale and dark beers produced under different mashing and boiling conditions. *Journal of the Institute of Brewing*. 121 (4), 541-547.
- 2014
- Tišma, Marina**; Molnar, Maja; Škarica, Marija; Čačić, Milan; Zelić, Bruno. Laccase Inhibiting Activity of Some Coumarin Derivatives, *Letters in Organic Chemistry*. 11, 583-589.
- 2013
- Jurinjak Tušek, Ana; **Tišma, Marina**; Bregović, Valentina; Ptičar, Ana; Kurtanjek, Želimir; Zelić, Bruno. Enhancement of phenolic compounds oxidation using laccase from *Trametes versicolor* in a microreactor. *Biotechnology and Bioprocess Engineering*. 18 (4), 686-696.
- 2012
- Tišma, Marina**; Žnidaršič-Plazl, Polona; Vasić-Rački, Đurđa; Zelić, Bruno. Optimization of laccase production by *Trametes versicolor* cultivated on industrial waste. *Applied Biochemistry and Biotechnology*. 166 (1), 36-46.
- 2010
- Tišma, Marina**; Sudar, Martina; Vasić-Rački, Đurđa; Zelić, Bruno: Mathematical model for *Trametes versicolor* growth in submerged cultivation. *Bioprocess and Biosystems Engineering*. 33 (6), 749-758.
- Tišma, Marina**; Žnidaršič-Plazl, Polona; Plazl, Igor; Vasić-Rački, Đurđa; Zelić, Bruno: Oxidation of coniferyl alcohol catalyzed by laccases from *Trametes versicolor*. *Acta Chimica Slovenica*. 57 (1), 110-117.
- 2009
- Kohoutová, Marie; Sikora, Antonín; Hovorka, Štěpán; Randová, Alena; Šchauer, Jan; **Tišma, Marina**; Setničková, Kateřina; Petričkovič, Roman; Guernik, Silva; Greenspoon, Noan; Izak, Pavel. Influence of ionic liquid content on properties of dense polymer membranes. *European Polymer Journal*. 45 (3), 813-819.
- Tišma, Marina**; Zelić, Bruno; Vasić-Rački, Đurđa; Žnidaršič-Plazl, Polona; Plazl, Igor: Modelling of laccase-catalyzed L-DOPA oxidation in a microreactor. *Chemical Engineering Journal*. 149 (1-3), 383-388.
- 2008
- Tišma, Marina**; Žnidaršič-Plazl, Polona; Plazl, Igor; Zelić, Bruno; Vasić-Rački, Đurđa: Modelling of L-DOPA oxidation catalyzed by laccase. *Chemical and Biochemical Engineering Quarterly*. 3, 307-313.