

Curriculum Vitae Tomislav Ivanković

Biography

Name: **Tomislav Ivanković**

Birth date: 9. 3. 1981., Zagreb, Croatia

e-mail: tomislav.ivankovic@biol.pmf.hr

phone: 00 385 1 618 9712, personal: 00 385 98 1870 737

Current employment:

Professors assistant / Junior researcher

Department of Microbiology, Division of Biology

Faculty of Science, University of Zagreb

Rooseveltovo trg 6

10 000 Zagreb, Croatia

Area of interest

Bacterial biofilms, biological wastewater treatment, carriers of bacteria.

Background

Since I graduated molecular biology at Faculty of Science, University of Zagreb, I have been working in bacteriological laboratory at the same faculty. The research was oriented at phosphate (P) removal from wastewater. More specifically we have been investigating potential of wastewater bioaugmentation using P-accumulating bacteria immobilized on mineral carriers. My PhD thesis "Aluminosilicate materials as carriers of phosphate-accumulating bacteria in wastewater treatment" came out of the mentioned research as well as 6 published papers. Some research was also being conducted on toxicity of surfactants and bioremediation.

Education

1999-2006. M.Sc. in Biology/ Molecular Biology, Faculty of Science, University of Zagreb

2007-2012. Ph.D. in Biology, Microbiology, Faculty of Science, University of Zagreb.

Ph.D. Thesis: „Aluminosilicate materials as carriers of phosphate-accumulating bacteria in wastewater treatment“

Work experience

February 2007 - July 2007. Volunteering at Bacteriological laboratory at Faculty of Science, Zagreb.

July 2007 – now, Professors assistant / Junior science researcher at project funded by Ministry of Science, Education and Sports, Croatia, entitled "Interaction between mineral carriers and phosphate accumulating bacteria in wastewaters" under mentoring of professor Jasna Hrenovic.

From September 2014. to September 2015., working as a post-doc in Laboratoire 3SR, Université Joseph Fourier, France, on a project entitled "Experimental investigation of biomass distribution in porous media by using X-Ray tomography" mentored by prof. Sabine Rolland du Roscoat.

Leader of Bacteriology practical classes for all students of Biology at Faculty of Science; "General Microbiology", "Bacteriology and Virology", "Bioremediation", "Biology of

wastewaters”, “Ecology of bacteria and viruses”. Teaching approximately 120 students a year.

Other teaching activities

Leader of Section for Microbiology at BIUS (Society of Biology Students, <http://www.bius.hr/>)
– organizing and maintaining various activities and small research projects with students.
Current project: microbiological analysis of cave “Veternica” near Zagreb.

Leader in organizing a popular science manifestation “Biology Night” from 2009. This manifestation is organized like “open door” of Faculty of Biology in collaboration with students. (<https://www.facebook.com/media/set/?set=a.105146752948556.4456.100003596948237&type=3#!/media/set/?set=a.105141212949110.4441.100003596948237&type=3>)

Maintaining facebook page “BakteriologijaPmf” intended to keep in touch with students through popular social network (<https://www.facebook.com/home.php#!/bakteriologija>)

Association membership

Croatian Microbiological Society
Croatian Water Pollution Control Society
Croatian Zeolite Association
International Zeolite Association

Awards

FEMS 2013. Young scientist award

Community service and hobbies

Appearance at Croatian National TV in popular science shows:

http://www.youtube.com/watch?v=81sqY0y0iD8&feature=player_embedded

<http://www.youtube.com/watch?v=KFfKKIaXR-A>

<http://www.youtube.com/watch?v=SAU11ChRsbE&feature=youtu.be>

Long time scale modeler and active member of Croatian scale modeller society „Slavoljub Penkala“ (<http://mksp.hr/index.html>). The club is actively participating on domestic and international plastic scale modeling events and competitions. The club is also organizing events regarding scale modeling and promoting technological culture in Croatia.

Publications

(Journal IF/Median Area Impact Factor)

1. **Ivankovic, Tomislav**; Mejdandzic, Maja; Postic, Sandra; Malesevic, Nikola; Hrenovic, Jasna. Practical bioremediation course – laboratory exercises on biodegradation of cationic surfactant, JMBE (2014). Accepted for publishing.

2. **Ivankovic, Tomislav**; Hrenovic, Jasna; Itskos, Gregorios; Koukouzas, Nikolaos; Kovacevic, Davor; Milenkovic, Jelena. Alkaline disinfection of urban wastewater and landfill leachate by wood fly ash, *Arh. Hig. Rada Toksikol.* 65 (2014), 365-375. DOI: 10.2478/10004-1254-65-2014-2546. (1,048/1,527)
3. **Ivankovic, Tomislav**; Hrenovic, Jasna; Matonickin-Kepecija, Renata. Resistance of bioparticles formed of phosphate-accumulating bacteria and zeolite to harsh environmental conditions, *Biofouling* 29 (2013) 641-649 DOI:10.1080/08927014.2013.786048. (4,429/1,620).
4. Hrenović, Jasna; Milenkovic, Jelena; **Ivankovic, Tomislav**; Rajic, Nevenka. Antibacterial activity of heavy-metal loaded natural zeolite, *J. Haz. Mat.* 201 (2012) 260-264. (4,173/1,620)
5. Hrenović, Jasna; Kovacevic, Davor; **Ivankovic, Tomislav**; Tibljas, Darko. Selective immobilization of *Acinetobacter junii* on the natural zeolitized tuff in municipal wastewater, *Colloids Surf. B.* 88 (2011) 208-214. (3,456/2,578)
6. **Ivankovic, Tomislav**; Hrenovic, Jasna; Sekovanic, Lavoslav. Influence of the degree of perlite expansion on immobilization of *Acinetobacter junii*, *Biochem. Eng. J.* 51 (2010), 117-123. (2,645/2,033)
7. Hrenovic, Jasna; **Ivankovic, Tomislav**; Rozic, Mirela. Requirement of *Acinetobacter junii* for magnesium, calcium and potassium ions, *J. Biosci. Bioeng.* 110 (2010), 180-186. (1,793/1,165)
8. Hrenovic, Jasna; Tibljas, Darko; **Ivankovic, Tomislav**; Kovacevic, Davor; Sekovanic, Lavoslav; Sepiolite as carrier of the phosphate-accumulating bacteria *Acinetobacter junii*, *Appl. Clay Sci.* 50 (2010), 582-587. (2,474/1,997)
9. Hrenovic, Jasna; **Ivankovic, Tomislav**; Tibljas, Darko. The effect of mineral carrier composition on phosphate-accumulating bacteria immobilization, *J. Haz. Mat.* 166 (2009), 1377-1382. (4,173/1,620)
10. **Ivankovic, Tomislav**; Hrenovic, Jasna; Gudelj, Ivana. Toxicity of commercial surfactants to phosphate-accumulating bacterium, *Acta Chim. Slov.* 56 (2009), 1003-1009. (1,328/1,316)
11. **Ivankovic, Tomislav**; Hrenovic, Jasna. Surfactants in the environment, *Arh. Hig. Rada Toksikol.* 61 (2010), 95-110. (1,048/1,527)
12. Hrenovic, Jasna; **Ivankovic, Tomislav**. Survival of *Escherichia coli* and *Acinetobacter junii* at various concentrations of sodium chloride, *Eurasia. J. Biosci.* 3 (2009), 144-151.

13. Hrenovic, Jasna; Rozic, Mirela; **Ivankovic, Tomislav**; Farkas, Ana-Marija. Biosorption of phosphate from synthetic wastewater by biosolids, *Cent. Eur. J. Biol.* 4(3) (2009), 397-403. (1,000/1,540)
14. Hrenovic, Jasna; **Ivankovic, Tomislav**; Sekovanic, Lavoslav; Rozic, Mirela. Toxicity of dodecylpyridinium and cetylpyridinium chlorides against phosphate-accumulating bacterium, *Cent. Eur. J. Biol.* 3(2) (2008), 143-148. (1,000/1,540)
15. Hrenovic, Jasna; **Ivanković, Tomislav**. Toxicity of anionic and cationic surfactant to *Acinetobacter junii* in pure culture, *Cent. Eur. J. Biol.* 2(3) (2007), 405-414. (1,000/1,540)
16. Hrenović, Jasna; Kovač, Veronika; **Ivanković, Tomislav**. Microbial colonization of high density polyethylene garbage bags, *Croatian Journal of Food Technology Biotechnology and Nutrition* 6 (2011), 52-57.
17. **Ivanković, Tomislav**; Hrenović, Jasna. Negativan utjecaj povišenih koncentracija željeza na fosfat-akumulirajuću bakteriju *Acinetobacter junii* u obradi otpadnih voda, *Hrvatske vode* 79/80 (2012), 23-28.

Scientific meetings

1. **Tomislav Ivankovic**, Jasna Hrenovic. Commercial materials as carriers of phosphate accumulating bacteria. FEMS 2013. 5th Congress of European Microbiologists, Leipzig, Germany, July 21-25. 2013. Book of Abstracts. **Poster presentation.**
2. Lucija Nuskern, **Tomislav Ivankovic**, Jasna Hrenovic. Removal of phosphate and heavy metals from wastewater by bacteria immobilized on natural zeolitic tuff. FEMS 2013. 5th Congress of European Microbiologists, Leipzig, Germany, July 21-25. 2013. Book of Abstracts. **Poster presentation.**
3. **Ivanković, Tomislav**; Hrenović, Jasna. Bacteria immobilized on natural zeolitized tuff are able to survive in the conditions of extreme pH, 4th Slovenian-Croatian Symposium on Zeolites, Ljubljana October 17-18, 2011. Proceedings, 73-76. **Poster presentation.**
4. **Ivanković, Tomislav**; Hrenović, Jasna. Biološko uklanjanje fosfata iz otpadnih voda – pregled dosadašnjih istraživanja. 5. Hrvatska konferencija o vodama s međunarodnim sudjelovanjem, Opatija, 18-21. svibnja 2011. Zbornik radova/Proceedings, 1087-1095. **Oral presentation**
5. Hrenović, Jasna; **Ivanković, Tomislav**; Farkaš, Ana-Marija; Tofant, Alenka; Rožić, Mirela; Sekovanić, Lavoslav; S. Tišma: *Mogućnosti biološkog pročišćavanja procjednih voda odlagališta otpada Jakuševac*, Tehnologije obrade voda, Zadar 2007, Zbornik sažetaka priopćenja, 9-14. **Oral presentation**
6. Hrenović, Jasna; Tibljaš, Darko; Sekovanić, Lavoslav; **Ivanković, Tomislav**; Rožić, Mirela. *Effect of natural and synthetic zeolites on bacteria*, First Croatian symposium on zeolites, Split/Croatia 2008, Proceedings, 33-37. **Poster**
7. **Ivankovic, Tomislav**; Hrenovic, Jasna; Sekovanic, Lavoslav; Tofant, Alenka. Perlite as a carrier of phosphate-accumulating bacteria, The Third International Meeting on Environmental Biotechnology and Engineering (3IMEBE), Palma de Mallorca, Spain, 21-25 September 2008, Book of Abstracts pp. 64, **Oral presentation**

8. Hrenovic, Jasna; Rozic, Mirela; **Ivankovic, Tomislav**; Farkas, Ana-Marija. Phosphate removal from wastewater by bacteria and organic bentonite, The Third International Meeting on Environmental Biotechnology and Engineering (3IMEBE), Palma de Mallorca, Spain, 21-25 September 2008, Book of Abstracts pp. 179, **Poster presentation.**
9. Hrenović, Jasna; **Ivanković, Tomislav**; Tofant, Alenka. Toxicity of cationic surfactants to phosphate-accumulating bacterium, 4th Croatian Congress of Microbiology, Zadar/Croatia, September 24-27, 2008, Proceedings 89. **Poster presentation.**
10. **Ivanković, Tomislav**; Hrenović, Jasna; Đuričić, Branka. Influence of the pH of wastewater on the phosphate-accumulating bacterium, 4th Croatian Congress of Microbiology, Zadar/Croatia, September 24-27, 2008, Proceedings 90. **Poster presentation.**
11. Hrenovic, Jasna; Bronic, Josip; Sekovanic, Lavoslav; Rozic, Mirela; **Ivankovic, Tomislav**. *Toxicity of aluminium originating from zeolite A on the Acinetobacter junii*, Eighth Keele Meeting on Aluminium, Třešt, Czech Republic, February 21-25, 2009, Book of Abstracts. **Poster presentation.**
12. L. Kavur, M. Cavka, A. Glasnovic, **T. Ivankovic**, I. Jankovic, P. Rajic-Sikanjic, E. Mlinaric-Missoni, J. Skrlin-Subic: Microbiological analysis of a mummy from the archaeological museum in Zagreb, 18th European Meeting of the Paleopathology Association (PPA2010), Vienna, Austria, August 23-26, 2010, Book of Abstracts pp. 120, **Poster presentation.**