

PERSONAL INFORMATION

Biljana Damjanović-Vratnica

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JOB APPLIED FOR
POSITION
PREFERRED JOB
STUDIES APPLIED FOR
PERSONAL STATEMENT

Faculty of Metallurgy and Technology, Podgorica, Montenegro

Full professor

WORK EXPERIENCE

Replace with dates (from - to)

2016-present

Full professor, Faculty of Metallurgy and Technology, University of Montenegro

Responsible for courses: Organic chemical technology I and II, Chemical reactors, Technology of bioactive natural products (Chemical Technology)

Responsible for courses: Technologies as pollution sources II, Biotechnology in environmental protection (Study of Environmental protection)

Responsible for course: Biotechnology (Faculty of Natural Sciences and Mathematics)

Business or sector Education

Replace with dates (from - to)

2011-2016

Associate professor, Faculty of Metallurgy and Technology, University of Montenegro

Responsible for courses: Organic chemical technology I and II, Chemical reactors (Chemical Technology)

Responsible for courses: Technologies as pollution sources II, Biotechnology in environmental protection (Study of Environmental protection)

Responsible for course: Biotechnology (Faculty of Natural Sciences and Mathematics)

Business or sector Education

Replace with dates (from - to)

2006-2011

Assistant professor, Faculty of Metallurgy and Technology, University of Montenegro

Responsible for courses: Organic chemical technology I and II, Chemical reactors, Technology of fruit and vegetable processing, Technology of pharmaceutical products (Chemical Technology)

Responsible for courses: Technologies as pollution sources II, Biotechnology in environmental protection (Study of Environmental protection)

Business or sector Education

EDUCATION AND TRAINING

Replace with dates (from - to) **2005**

Replace with EQF (or other) level if relevant

PhD, Extraction of bioactive compounds from herbs (Clevenger method, Soxhlet method, microwave and ultrasound extraction), supercritical and subcritical extraction (with CO₂ as extraction fluid), biological activities of herb extracts (disc diffusion microorganisms tests, antioxidant activity – DPPH and Rancimat), chemical analysis of essential oil and extracts (GC-FID, GC-MS, HPLC). University of Novi Sad, Serbia, University of Birmingham, UK.

Biochemical engineering and pharmaceutical technology

Replace with dates (from - to) **2000**

Replace with EQF (or other) level if relevant

MSc, extraction of bioactive compounds from *Juniperus communis* fruit, with different extraction method. Quality and composition of obtained extracts by different physico-chemical and chromatograph methods. Investigation of monoterpenes, sesquiterpenes and oxygenated compounds as well as cuticular waxes. Faculty of Technology and Metallurgy, Belgrade University, Serbia.

Biochemical engineering, bioactive compounds isolation

Replace with dates (from - to) **1996**

Replace with EQF (or other) level if relevant

Graduated Engineer of technology,

- Wine quality analysis, Organic chemical technology, Inorganic chemical technology, General and Inorganic Chemistry, Organic chemistry, Analytical chemistry, Physical chemistry, Chemical engineering.
- Faculty of Metallurgy and Technology, University of Montenegro

PERSONAL SKILLS

Mother tongue(s) Montenegrin

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C2
	Replace with name of language certificate. Enter level if known.				
Italian	B2	B2	A2	A1	A1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- good communication skills gained through teaching activities and work with students
- good communication skill gained through different Projects as leader or member

Organisational / managerial skills

- leadership (responsible for few national and international projects, with teams up to 5 people)

Job-related skills

- ability to work in team, as well as alone
- capable to work in multicultural environment

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Basic user	Basic user	Basic user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Replace with name of ICT-certificates

- good command of office suite (word, excel, powerpoint)
- work in origin
- good command of photo editing software gained through lectures, manuscripts and thesis writing

Driving licence

B

ADDITIONAL INFORMATION

Publications (examples)

1. B. Damjanović-Vratnica, I. Kasalica, S. Perović, S. Krivokapić (2024) Effect of Extraction Process Parameters on The Recovery of Bioactive Phenolic Compounds from Blueberry Pomace, 27th Congress of SCTM, 25-28 September 2024, Ohrid, Macedonia
2. B. Damjanović-Vratnica, B. Đurišić, Svetlana Perović, A. Perović, S. Krivokapić (2024) Extraction Techniques Impact on Oregano Post-Distillation Waste Biomass Valorization, 27th Congress of SCTM, 25-28 September 2024, Ohrid, Macedonia
3. B. Damjanović-Vratnica, V. Krunić, S. Perović, A. Perović, S. Krivokapić (2023) Effect of Vegetation Cycle on the Chemical Composition and Antimicrobial Activity of Rosmarinus officinalis Essential Oil, EMEC 2023 (23rd European Meeting on Environmental Chemistry), 3-6 December 2023, Budva, Montenegro
4. S. Perović, A. Kurtiš, S. Krivokapić, A. Perović, B. Damjanović-Vratnica (2023) Bioactive compounds from plants extracts with significant biological potential, GREENTECH conference, 11-12 September 2023, Belgrade, Serbia
5. B. Damjanović-Vratnica, N. Tepavčević, S. Krivokapić, S. Perović (2023) Dalmatian sage postdistillation waste material as valuable source of bioactive compounds, Fifth international symposium on corrosion and protection of materials, environmental protection and protection against fire, 26-29 September 2023, Bar, Montenegro
6. S. Krivokapić, M. Otović, S. Perović, B. Damjanović-Vratnica (2022) Total phenols, flavonoids, anthocyanins and antioxidant activity of wild pomegranate (*Punica granatum L.*) biowaste from Montenegro, Agriculture and Forestry, 68 (2), 157-165
7. S. Krivokapić, M. Vlaović, B. Damjanović-Vratnica, A. Perović, S. Perović, (2021) Biowaste as a Potential Source of Bioactive Compounds—A Case Study of Raspberry Fruit Pomace" Foods 10, no. 4: 70
8. S. Perović, S. Pantović, V. Šćepanović, A. Perović, A., V. Živkovic, B. Damjanovic Vratnica, (2019) Evaluation of antimicrobial activity and activity on the autonomic nervous system of the lavender essential oils from Montenegro. Progress in Nutrition. 21, 3, 584-590.
9. D. Stešević, Ž. Jacimović, Z. Šatović; Šapčanin A., Jančan G., Kosović M., B. Damjanović - Vratnica, (2018) Chemical characterization of wild growing *Origanum vulgare* populations in Montenegro, Natural product communications (1934-578X) 13, 10; 1357-1362
10. B. Damjanović-Vratnica, Tadić.V. (2017) „Variability of essential oils from wild-growing and cultivated *Salvia officinalis L.* from Montenegro“, 10th World Congress of Chemical Engineering, 1.-6.10. 2017., Barcelona, Spain
11. B. Damjanović-Vratnica, S. Krivokapić, S. Pantović, S. Perović (2017) "Biological activities of extracts from thyme (*Thymus vulgaris*) leaves" 10th Joint Meeting on Medicinal Chemistry, June

25–28, Dubrovnik, Croatia.

12. S. Krivokapic, S. Perović, D. Stešević, D. Caković, A. Perović, B. Damjanović-Vratnica (2017) "Antioksidativni potencijal ekstrakata brdena (*Asphodelus aestivus*)" 54th Meeting of the Serbian Chemical Society, Belgrade, Serbia

13. B. Damjanović-Vratnica (2016). Herbal Extracts – Possibility of Preventing Food-Borne Infection, Significance, Prevention and Control of Food Related Diseases, Dr. Hussaini Makun (Ed.), InTech, DOI: 10.5772/62268.

14. B. Damjanović-Vratnica, Svetlana Perović, Tiejun Lu, Regina Santos (2016) Effect of matrix pretreatment on the supercritical CO₂ extraction of *Satureja montana* essential oil, Chemical Industry&Chemical Engineering Quarterly, 22(2):201-209, ISSN 1451-9372.

15. B. Damjanović-Vratnica, Šuković, D., Perović, S. (2016) Essential oil components and antimicrobial activity of peppermint (*Mentha piperita*) from Montenegro, Agriculture and Forestry, 62 (1): 259-268, ISSN 0554-5579

16. B. Damjanović-Vratnica (2015) Influence of some aromatic plants on oxidative stability of rapeseed oil based biodiesel. In: Gligorić, M. (Ed.) The Book of Abstracts, IV International Congress "Engineering, Environment and Materials in Processing Industry", Jahorina, Bosnia and Hercegovina, 4-6. 03. 2015., 82.

17. B. Damjanović-Vratnica, Caković, D., Perović, S. (2015) Composition and antimicrobial studies of essential oil of *Thymus vulgaris* from Montenegro, Biologica Nyssana, 6 (2): 13-19, ISSN: 2217-4606

18. Perović, A., Šuković, D., Vukić, J., Damjanović–Vratnica, B., Trebše, P., Perović, S. (2013) Quality evaluation of soils and sediments in Zeta plain using *Danio rerio* embryo toxicity test, In: Jaćimović, Ž. (Ed.) Book of abstracts, 14th European Meeting on Environmental Chemistry, Budva, Montenegro, 4-7.12.2013., str. 73-74.

19. Perović, A., Šuković, D., Vukić, J., Damjanović–Vratnica, B., Trebše, P., Perović, S. (2013) Quality evaluation of soils and sediments in Zeta plain using *Danio rerio* embryo toxicity test, In: Jaćimović, Ž. (Ed.) Book of abstracts, 14th European Meeting on Environmental Chemistry, Budva, Montenegro, 4-7.12.2013.

20. B. Damjanović-Vratnica, Blagojević, N., Raonić, D., Đurović, D. (2012) Monitoring of heavy metal pollution of soil near Alumina Factory, Podgorica. Proceedings of the Symposium, Second International Symposium on Corrosion and protection of materials and Environment, Bar, Montenegro, 17–20. 10. 2012..

21. B. Damjanović-Vratnica (2012) Perspectives of industrial production of environmentally degradable plastics. Proceedings of the Symposium, Second International Symposium on Corrosion and protection of materials and Environment, Bar, Montenegro, 17–20. 10. 2012.

22. B. Damjanović-Vratnica, Blagojević, N., Raonić, D., Đurović, D. (2012) Monitoring of heavy metal pollution of soil near Alumina Factory, Podgorica. In: Vuksanović, D. (Ed.) Proceedings of the Symposium, Second International Symposium on Corrosion and protection of materials and Environment, Bar, Montenegro, 17–20. 10. 2012., str. 313-318.

23. B. Damjanović-Vratnica (2012) Perspectives of industrial production of environmentally degradable plastics. In: Vuksanović, D. (Ed.) Proceedings of the Symposium, Second International Symposium on Corrosion and protection of materials and Environment, Bar, Montenegro, 17–20. 10. 2012., str. 284-288.

24. B. Damjanović-Vratnica, Svetlana Perović, Andrej Perović, Danijela Šuković (2011) Effect of vegetation cycle on chemical content and antimicrobial activity of *Satureja montana* L., Archives of Biological Sciences 63 (4), 1173-1179. ISSN: 0354-4664.

25. B. Damjanović-Vratnica, T. Đakov, D. Šuković, J. Damjanović (2011) Antimicrobial effect of essential oil isolated from *Eucalyptus globulus* Labill. from Montenegro, Czech Journal of Food Science, 29, 3: 277–284, ISSN: 1212-1800.

26. N. Blagojević, B. Damjanović-Vratnica, V. Vukašinović-Pešić, D. Đurović (2009) Heavy metals content in leaves and extracts of wild-growing *Salvia officinalis* from Montenegro, Polish Journal of Environmental Studies, Vol. 18, No. 2 169-173. ISSN: 1230-1485

27. B. Damjanović-Vratnica, T. Đakov, D. Šuković, J. Damjanović (2008) "Chemical composition and antimicrobial activity of essential oil of wild-growing *Salvia officinalis* L. from Montenegro", Journal of Essential oil Bearing Plants, 11 79-89.

28. B. Damjanović, D. Skala, J. Baras, D. Petrović-Đakov (2006) Isolation of essential oil and supercritical carbon dioxide extract of *Juniperus communis* L. fruits from Montenegro, Flavour and Fragrance Journal, 21 (2006) 875-880.

29. B. Damjanović, Ž. Lepojević, V. Živković, A. Tolić (2005) Extraction of fennel (*Foeniculum vulgare* Mill.) seeds with supercritical CO₂: comparison with hydrodistillation, *Food Chemistry*, 92 (2005) 143-149.
30. B. Damjanović, Ž. Lepojević, V. Živković, A. Tolić (2005) "Isolation of essential oil and supercritical carbon dioxide extract of fennel seeds (*Foeniculum vulgare* Mill.) from Montenegro" 36th International Symposium on Essential Oils, Budapest, Hungary, 4-7. septembar 2005. 33.
31. B. Damjanović, S. Shober, T. Đakov, M. Mittelbach (2004) "Antioxidant activity of some aromatic herbs from Montenegro", 4th International Conference of the Chemical Societies of the SouthEast European Countries on Chemical Sciences in Changing Times, Beograd, 18-21. July, 2004.
32. B. Damjanović, D. Skala, D. Petrović-Đakov, J. Baras (2003) "A Comparison between the oil, hexane extract and supercritical carbon dioxide extract of *Juniperus communis* L." *J. Essent. Oil Res.*, 15, str. 90-92, (2003) ISSN: 1041-2905
33. B. Damjanović, J. Damjanović, V. Živković (2002) "Chemical composition and antimicrobial activity of the essential oil of *Eucalyptus globulus* Labill., Myrtaceae, from Montenegro", 33rd International Symposium on Essential Oils, Lisbon, Portugal, 4-7. september 2002.
34. B. Damjanović, D. Skala, D. Petrović-Đakov, J. Baras (2001) "Comparative chemical composition of the essential oil of common Juniper berries produced by the liquid CO₂ extraction and hydrodistillation", 32nd International Symposium on Essential Oils, Wroclaw, Poland 9-12. september 2001.

Postgraduate and postdoctoral studies programs	<p>2001. - Institute of Chemistry, University of Graz, Austria, research group "Renewable Resources", investigation on biodiesel</p> <p>2003. - School of Chemical Engineering, University of Birmingham, UK, research Group "Supercritical Fluid Technology Group", investigation of solubility of bioactive compounds in supercritical fluids</p> <p>2007. - School of Chemical Engineering, University of Birmingham, UK, Research Group "Supercritical Fluid Technology Group", investigation of solubility of bioactive compounds in supercritical fluids</p>
Projects (examples)	<p>National scientific Project "Optimisation of bioactive compounds extraction operation parameters (Juniperus communis L.) in conventional, subcritical and supercritical conditions, 2000-2002, team member</p> <p>National scientific Project 'Synthesis, characterisation and biological activity of the newest series of polydentate dithiocarbamate ligands and corresponding complexes of some transitional metals', Ministry of Education and Science, 2000-2002, team member.</p> <p>National scientific Project "Extraction and examination of quality of some bioactive compounds from aromatic herbs from Montenegro" Ministry of education and science of Montenegro 2008-2011, team leader</p> <p>Project: Environmental and sustainable development- Environmental Quality, Montenegrin Academy of science and art, Project – CRNA GORA U XXI STOLJECU- U ERI KOMPETITIVNOSTI, Podgorica, 2009-2010, team member</p> <p>National scientific Project "Assessment of correlations between stressors and contaminants and toxic effect in Zeta valley using bio tests", Ministry of science of Montenegro 2012-2015, team member</p> <p>Eureka Project "Comprehensive processing of plant extracts for high value added products"- Danube call- 2016-2018 – EUREKA E!9906, Consortium of 11 members, team leader for Montenegrin team</p> <p>Bilateral Project (Montenegro-Serbia): "Investigation of chemoprotective potential of medicinal herbs form rural areas of Montenegro", 2016-2018, team leader for Montenegrin team</p> <p>Eureka project: Phyto preparations - natural materials with supercritical extracts for controlled release of active components, 2018-2020, Consortium of 11 members, (PL, SRB, DE, ME), team member</p> <p>Eureka Project GREENTECH: Active substances from supercritical plant extracts for high value-added products, 2020-2023, (PL, SRB, DE, ME), team member</p> <p>National scientific Project "Extraction and examination of quality of some bioactive compounds from aromatic herbs from Montenegro" Ministry of education and science of Montenegro 2008-2011, team coordinator</p> <p>National scientific Project "Assessment of correlations between stressors and contaminants and toxic effect in Zeta valley using bio tests", Ministry of science of Montenegro 2012-2015. team member</p> <p>Eureka Project "Comprehensive processing of plant extracts for high value added products " -Danube call- 2016-2018 – EUREKA E!9906, team coordinator for Montenegro</p> <p>Adriatic-Ionian ADRION Programme: „Circular Economy Skills enhancement Network – CRESCENTO“, 01/2023 – 09/2023, team member</p>
Memberships	<p>Chemical Society of Montenegro</p> <p>Montenegrin Society for material protection</p> <p>Association for Medicinal and Aromatic Plants of Southeast European Countries (AMAPSEEC)</p>
Scientific meetings - organization	<p>1st Conference of Chemistry and Environment, Budva, Montenegro 12 -15. Jun 2007, Member of the organizing Committee</p> <p>2nd Conference of Chemistry and Environment, Bar, Montenegro, 16 -19. September 2009., Member of the organizing Committee</p> <p>1st International Symposium on Corrosion and protection of materials and Environment in Bar, 23-26. November 2010., Member of the organizing Committee</p>
Certifications	<p>Cleaner Production CP National Expert certificate.</p>