

PERSONAL INFORMATION

Dušan Čulum



 Ilidža, Bosnia and Herzegovina

 +387 33 279 999

 dusan.culum@pmf.unsa.ba

Google scholar: <https://scholar.google.com/citations?user=7sE2YcAAAAJ&hl=hr>
 ORCID: <https://orcid.org/0000-0002-9044-4013>

WORK EXPERIENCE

| | |
|----------------|----------------------------------------------------------------------------------------------------------------------|
| 10/2022-today | Assistant professor University of Sarajevo – Faculty of Science, Department of Organic chemistry and Biochemistry |
| 2/2018-10/2022 | Senior assistant University of Sarajevo – Faculty of Science, Department of Organic chemistry and Biochemistry |
| 3/2022-6/2022 | Senior assistant University of Sarajevo-Faculty of Health Studies |
| 10/2020-1/2021 | Senior assistant University of Sarajevo- Faculty of Veterinary Medicine |
| 10/2016-9/2019 | Teaching assistant University of Sarajevo-Faculty of Health Studies |
| 10/2014-2/2018 | Teaching assistant University of Sarajevo – Faculty of Science, Department of Organic chemistry and Biochemistry |

EDUCATION AND TRAINING

| | |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2019-2022 | PhD studies University of Sarajevo – Faculty of Science, Sarajevo, Bosnia and Herzegovina “Chemical composition and biological activity of selected medicinal and endemic plants of BiH”, |
| 2013-2014 | Master studies University of Sarajevo – Faculty of Science, Sarajevo, Bosnia and Herzegovina “Determination of phenolic compounds content by HPLC method in extracts of plant material <i>Crataegus microphylla</i> L. “ |
| 2009-2013 | Bachelor studies University of Sarajevo – Faculty of Science, Sarajevo, Bosnia and Herzegovina “Determination of total flavonoids and antioxidant activity in extracts of some plants of the genus <i>Crataegus</i> L.“ |

PERSONAL SKILLS

Mother tongue(s) Serbian

| Other language(s) | UNDERSTANDING | | SPEAKING | | WRITING |
|-------------------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | B2 | B1 | B1 | B1 | B1 |

Computer skills

- good command of Microsoft Office™ tools
- good command of different chemical software (Lab Solution, Mass Hunter, Mass Finder, Chem Draw etc.)

Other skills Work on different instruments for chemical analysis:

- UV/Vis spectrophotometer
- Spectrofluorimeter
- HPLC-ED
- HPLC-DAD
- LC-QTOF
- GC-MS

Driving licence B1, B, BE, C1, C

ADDITIONAL INFORMATION

Projects

- 2021-today – „Adsorpcija i uklanjanje organofosfatnog pesticida iz uzoraka vode upotrebom filisilikatnog minerala". Financier: Ministry of Science, Higher Education and Youth; Project leader: prof.dr. Lejla Klepo
- 2021-today – „Izolacija, identifikacija i antioksidativna aktivnost biološki aktivnih spojeva vrsta roda *Fraxinus* L.«. Financier: Federal Ministry of Education and Science. Project leader: prof.dr. Amira Čopra-Janićjević.
- 2019-2022 – „Bioprospekting odabranih ljekovitih i endemičnih biljaka BiH – hemijski sastav, biološka aktivnost i veličina genoma«. Financier Ministry of Science, Higher Education and Youth; Project leader: prof.dr. Danijela Vidic.
- 2015-2018 - „Određivanje sastava i sadržaja odabranih fenolskih spojeva HPLC-ED metodom u biljkama roda *Crataegus* L«. Financier: Federal Ministry of Education and Science; Project leader: prof.dr. Amira Čopra-Janićjević.

Conferences

| | |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 7/2022 | 4 th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina |
| 10/2018 | 3 rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina |
| 10/2014 | 1st Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina |

Seminars

02/02-06/02/2015.-TEMPUS project „, Network for education and training for public environmental laboratories".
Code of project: 530554-TEMPUS-1-2012-1-SK-JPHES
„Processing of water samples - education for laboratory staff from Bosnia and Herzegovina ", University of Sarajevo

17/11-20/11/2014.- TEMPUS project„, Network for education and training for public environmental laboratories".
Code of project : 530554-TEMPUS-1-2012-1-SK-JPHES

„Validation of water testing methods ", University of Banja Luka

10/02-14/02/2014.- TEMPUS project, „ Network for education and training for public environmental laboratories".

Code of project : 530554-TEMPUS-1-2012-1-SK-JPHES

„ Education on the processing of water samples ", University of Sarajevo

Publications

Published peer-reviewed classbooks

1. Maksimović, M., Čopra-Janićijević, A., Vidic, D., Topčagić, A., Klepo, L., Dizdar, M., **Čulum, D.** (2019). Osnove organske hemije zbirka zadataka, Prirodno-matematički fakultet, Sarajevo, ISBN 978-9926-453-21-3.
2. Vidic, D., **Čulum, D.**, Maksimović, M. (2022). Praktikum hemije prirodnih produkata, Prirodno-matematički fakultet, Sarajevo, ISBN 978-9926-453-44-2

Scientific papers in journals covered by ISI Web of Knowledge - Current Contents Connect®

1. Čulum, D., Čopra-Janićijević, A., Muratović, E., Siljak-Yakovlev, S., Maksimović, M., Vidic, D. (2021). Essential Oil Composition and Antioxidant Activity of Endemic *Achillea lingulata* Waldst. & Kit. Compared to Common *A. millefolium* L. Records of Natural Products.
2. Čopra-Janićijević, A., Čulum, D., Vidic, D., Tahirović, A., Klepo, L., Bašić, N. (2018). Chemical composition and antioxidant activity of the endemic *Crataegus microphylla* Koch subsp. malyana Kl Chr. & Janjić from Bosnia. Industrial Crops and Products, 113, 75-79.

Scientific papers in journals covered by ISI Web of Knowledge - Current Contents Connect®

1. Osmic, N., Čulum, D., Ibragic, S. (2022). Catechins and other phenolic compounds in herb of eight *Ephedra* species in comparison to *Camellia sinensis*. Natural Product Research, 1-6.
2. Mahmutović-Dizdarević, I., Dizdar, M., Čulum, D., Vidic, D., Dahija, S., Jerković-Mujkić, A., Bešta-Gajević, R. (2020). Phenolic Composition, Antioxidant and Antimicrobial Activity of Cotoneaster Medik. Species from Bosnia and Herzegovina. Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, 54 (1).
3. Etminan, A., Uzunović, A., Topčagić, A., Žero, S., Dizdar, M., Klepo, L., Čulum, D., Džudžević-Čančar, H., Tahirović, I. (2019). Quantification of Active Substances in Some Drugs Using by Derivative UV/Vis spectroscopy. In International Conference on Medical and Biological Engineering (pp. 553-557). Springer, Cham.
4. Čulum, D., Čopra-Janićijević, A., Vidic, D., Klepo, L., Tahirović, A., Bašić, N., & Maksimović, M. (2018). HPLC-ED Analysis of Phenolic Compounds in Three Bosnian *Crataegus* Species. Foods (Basel, Switzerland), 7(5).
5. Nuhanovic, M., Topalovic, A., Čulum, D., Ibragic, S. (2018). The Effectiveness of Natural and Synthetic Antioxidant Additives on the Oxidation Stability of Biodiesel Synthesized from Fresh and Waste Sunflower Oil. Orbital: The Electronic Journal of Chemistry, 10(7), 535-543.

Abstracts of scientific papers in journals covered by ISI Web of Knowledge - Web of Science®

1. Čulum, D., Vidic, D., Maksimović, M., Čopra-Janićijević, A., Muratović, E., Siljak-Yakovlev, S. (2022). Chemical Characterization of Essential Oils of *Achillea nobilis* L. and *Achillea millefolium* L. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of

- Bosnia and Herzegovina, Special Issue, Book of Abstracts, 77.
2. Mehić, K., Jevđević, K., Čulum, D., Čopra-Janićijević, A., Vidic, D. (2022). Qualitative and Quantitative Analysis of Flavonoids of *Achillea lingulata* Waldst. & Kit. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 78.
 3. Marković, I., Pešković, L., Čulum, D., Vidic, D., Maksimović, M., Čopra-Janićijević, A. (2022). Total Phenolic Content and Antioxidant Activity of *Juniperus communis* L. subsp. nana. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 79.
 4. Karadža, A., Smaka, E., Čulum, D., Čopra-Janićijević, A. (2022). Content of Total Phenols, Total Flavonoids and Antioxidant Activity of Cosmetic Skin Care Products. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 82.
 5. Nuić, A., Piljug, M., Čulum, D., Muratović, E., Vidic, D. (2022). Chemical Composition and Antioxidant Activity of *Lilium bosniacum*. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 83.
 6. Marković, I., Čulum, D., Vidic, D., Čopra-Janićijević, A., Topčagić, A., Klepo, L. (2022). Identification of Chemical Constituents from Two *Fraxinus* Species by GC-MS and HPLC-DAD Methods. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 84.
 7. Suljić, M., Čulum, D., Vidic, D., Čopra-Janićijević, A. (2022). Chemical Composition and Antioxidant Activity of *Achillea millefolium*. 4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 85.
 8. Etminan, A., Uzunović, A., Topčagić, A., Žero, S., Dizdar, M., Klepo, L., Čulum, D., Tahirović, I. (2018). Utilisation of Derivative UV/Vis Spectrophotometry in Determination of Active Pharmaceutical Ingredient Content in Some Drugs. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 24.
 9. Džafo, A., Klepo, L., Čopra-Janićijević, A., Čulum, D. (2018). Spectrophotometric Determination of Glyphosate in Selected Samples. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 42.
 10. Kristić, D., Šimunić, I., Ibragić, S., Čulum, D., Klepo, L., Tahirović, I. (2018). Determination of Total Protein Content in Royal Jelly Samples by an UV Spectrophotometric Method. Drugs. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 59.
 11. Šimunić, I., Kristić, D., Ibragić, S., Čulum, D., Klepo, L., Tahirović, I. (2018). Determination of Total Phenolic Content of Royal Jelly by Using a Spectrophotometric Method. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 60.

12. Asentić, M., Košarac, G., Čopra-Janićijević, A., Čulum, D. (2018). Determination of Total Phenolic Acids and Antioxidant Activity of *Fraxinus ornus* L. and *Fraxinus excelsior* L. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 72.
13. Balić, S., Čulum, D., Vidic, D., Klepo, L., Bašić, N., Čopra-Janićijević, A. (2018). Determination of Phenolic Compounds in *Fraxinus angustifolia* Vahl. by HPLC-DAD. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 73.
14. Mehić, M., Barešić, M., Čulum, D., Vidic, D., Tahirović, A., Čopra-Janićijević, A. (2018). HPLC-DAD Analysis of Coumarins and Phenolic Acids in Ethanolic Extracts of *Fraxinus ornus* L. and *Fraxinus excelsior* L. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 75.
15. Mahmutagić, E., Čulum, D., Dizdar, M., Vidic, D. (2018). Chemical Composition and Antioxidant Activity of Ethanolic Extracts of Selected Cereals. 3rd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 79.

Scientific papers in local journals

1. Gojak-Salimović, S., Šljivo, E., Vidic, D., Čulum, D. (2018). Determination of total phenolic content and antioxidant activity of aqueous extracts of selected medicinal plants. Works of the Faculty of Forestry University of Sarajevo, (2).

Scientific papers presented at scientific conferences

1. Čulum, D., Kenjić, J., Vidic, D., Klepo, L., Tahirović, A., Bašić, N., Čopra-Janićijević, A. (2014). Determination of some phenolic compounds in *Crataegus monogyna* and *Crataegus microphylla* by HPLC-ED. Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International participation, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 104. (Poster presentation).
2. Hot, D., Čulum, D., Vidic, D., Tahirović, A., Klepo, L., Čopra-Janićijević, A. (2016). Total Flavonoids and TLC Analysis of Three *Crataegus* Species. 2nd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine-Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 13. (Poster presentation).
3. Jozeljčić, B., Talić, L., Vukas, M., Dizdar, M., Čulum, D., Vidic, D. (2016). Spectrophotometric Determination of total Monoterpenes Content in Essential Oil of Selected Aromatic Plants. 2nd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine-Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 23. (Poster presentation).
4. Tomić, Z., Bošnjak, I., Čulum, D., Čopra-Janićijević, A., Klepo, L., Tahirović, A. (2016). Determination of Esculin, Esculetine and Scopoletin in Extracts of *Fraxinus ornus* L. and *Fraxinus excelsior* L. By HPLC-ED. 2nd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine-Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 10. (Poster presentation).
5. Balić, S., Miović, D., Šehić, A., Klepo, L., Čulum, D., Čopra-Janićijević, A., Tahirović, A. (2016). Spectrofluorimetric Determination of Total Coumarins in Various *Fraxinus*

- species from Bosnia and Herzegovina. 2nd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 9. (Poster presentation).
6. Kuljanin, G., Rizvo, L., Ajanović, A., Čulum, D., Vidic, D., Čopra-Janićijević, A., Tahirović, A., Klepo, L., Bašić, N. (2016). Determination of Phenolic Compounds in Crataegus Extract by HPLC-ED Analysis. 2nd International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Glasnik hemičara i tehnologa Bosne i Hercegovine Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Special Issue, Book of Abstracts, 12. (Poster presentation).
 7. Culum, D., Kenjic, J., Vidic, D., Copra-Janicijevic, A. (2014) Determination of total flavonoids and antioxidant activity in selected samples of Crataegus L. plants of the genus Crataegus L., X. Susret mladih kemijskih inženjera, 20 i 21 Februar, Zagreb, Hrvatska, Book of Abstracts, PP-143. (Poster presentation).
 8. Kenjic, J., Culum, D., Copra-Janicijevic, A., Tahirovic, A. (2014) Determination of total anthocyanins in extracts of certain plants of the genus Crataegus L., X. Susret mladih kemijskih inženjera, 20 i 21 Februar, Zagreb, Hrvatska, Book of Abstracts, PP-154. (Poster presentation).