

SIMI SCIENTIFIC COMMITTEE
Section: Sustainable Environmental Technologies

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SHORT PROFESSIONAL INFO

Laura Bulgariu is Professor at „Gheorghe Asachi Technical University of Iași, „Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management. She received the B.Sc. in Chemistry (1996), and then M.Sc. (1999), D.Sc. in Chemistry (2006) and habilitation in Environmental Engineering (2013). Starting from 2019, she holds the position of professor, at Department of Environmental Engineering and Management.

Prof. Bulgariu research area include: ecological methods of pollutants (heavy metals, organic dyes, antibiotics) removal from aqueous media, biosorption/adsorption, isotherm and kinetic modeling, waste valorization. She has published more than 250 journal papers and presented numerous papers at international conferences. She has also supervised 4 Ph.D. and 15 M.Sc. theses.

ACTUAL POSITION

Professor at „Gheorghe Asachi” Technical University of Iași, „Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, Bvd. Prof. Dimitrie Mangeron, no. 73, 700050, Iași, România.

ACADEMIC QUALIFICATION

B.Sc.	1996	„Al.I.Cuza” University of Iași
M.Sc.	1999	„Al.I.Cuza” University of Iași
D.Sc.	2006	„Gheorghe Asachi” Technical University of Iași
Habilitation	2013	„Gheorghe Asachi” Technical University of Iași

RESEARCH INTEREST

ecological methods of pollutants (heavy metals, organic dyes, antibiotics) removal from aqueous media; biosorption/adsorption; isotherm and kinetic modeling; waste valorization.

REPRESENTATIVE SCIENTIFIC PUBLICATIONS

1. **Laura Bulgariu**, D. Bulgariu. Extraction of metal ions in aqueous PEG-inorganic salt two phase systems in presence of inorganic extractants: correlation between extraction behaviour and stability constants of extracted species. *Journal of Chromatography A.*, 1196-1197 (1-2), (2008), 117-124.
2. D. Humelnicu, **Laura Bulgariu**, M. Macoveanu, On the retention of uranyl and thorium ions from radioactive solution on peat moss, *Journal of Hazardous Materials*, 174 (2010) 782–787.
3. D. Bulgariu **Laura Bulgariu**, Equilibrium and kinetics studies of heavy metal ions biosorption on green algae waste biomass, *Bioresource Technology*, 103 (2012) 489–493.
4. D. Bulgariu, **Laura Bulgariu**, Sorption of Pb(II) onto a mixture of algae waste biomass and anion exchanger resin in a packed-bed column, *Bioresource Technology*, 129, (2013), 374–380.
5. D. Bulgariu, **Laura Bulgariu**, Potential use of alkaline treated algae waste biomass as sustainable biosorbent for clean recovery of cadmium(II) from aqueous media: batch and column studies, *Journal of Cleaner Production*, 112, (2016), 4525-4533.
6. I.S. Bădescu, D. Bulgariu, **Laura Bulgariu**, Alternative utilization of algal biomass (*Ulva* sp.) loaded with Zn(II) ions for improving of soil quality, *Journal of Applied Phycology*, 29(2), (2017), 1069-1079.
7. I.S. Bădescu, D. Bulgariu, I. Ahmad, **Laura Bulgariu**, Valorisation possibilities of exhausted biosorbents loaded with metal ions – A review, *Journal of Environmental Management*, 224 (2018), 288-297.
8. **Laura Bulgariu**, L.B. Escudero, O.S. Bello, M. Iqbal, J. Nisar, K.A. Adegoke, F. Alakhran, M. Kornaros, I. Anastopoulus, The utilization of leaf- based adsorbents for dyes removal: A review, *Journal of Molecular Liquids*, 276, (2019), 728-747.
9. S. Mazhar, A. Ditta, **Laura Bulgariu**, I. Ahmad, M. Ahmed, A.A. Nadiri, Sequential Treatment of Paper and Pulp Industrial Wastewater: Prediction of Water Quality Parameters by Mamdani Fuzzy Logic Model and Phytotoxicity Assessment, *Chemosphere*, 227, (2019), 256-268.
10. A.R. Lucaci, D. Bulgariu, I. Ahmad, G. Lisă, A.M.Mocanu, **Laura Bulgariu**, Potential Use of Biochar from Various Waste Biomass as Biosorbent in Co(II) Removal Processes, *Water*, 11, (2019), 1565.
11. **Laura Bulgariu**, D.Bulgariu – Chapter 4: Bioremediation of Toxic Heavy Metals Using Marine Algae Biomass, in *Green Materials for Wastewater Treatment*, Edited by: Mu. Naushad and E. Lichtfouse, Springer Nature, 2020, ISBN: 978-3-030-17723-2. DOI: 10.1007/978-3-030-17724-9_4. pp.69-98.
12. A.R. Lucaci, D. Bulgariu, I. Ahmad, **Laura Bulgariu**, Equilibrium and Kinetics Studies of Metal Ions Biosorption on Alginate Extracted from Marine Red Algae Biomass (*Callithamnion corymbosum* sp.), *Polymers*, 12, (2020), 1888.
13. C.S.Ciobanu, R. Copae, D. Bulgariu, **Laura Bulgariu**, Comparative study of Pb(II) ions adsorption on PET fibers and flakes: isotherm, kinetic and mechanism considerations, *Desalination and Water Treatment*, 222, (2021), 375-385.
14. A.R. Lucaci, D. Bulgariu, **Laura Bulgariu**, In Situ Functionalization of Iron Oxide Particles with Alginate: A Promising Biosorbent for Retention of Metal Ions, *Polymers*, 13, (2021), 3554.
15. K. Dziergowska, **Laura Bulgariu**, I. Michalak, Chapter 4: Algae-based low-cost strategy for wastewater treatment, in *Algae and Aquatic Macrophytes in Cities: Bioremediation, Biomass, Biofuels and Bioproducts*, Edited by V.C. Pandey, Elsevier Amsterdam, Netherlands, 2022, ISBN: 978-0-12-824270-4, 390 pgs., pp. 65-102.
16. S. Praveen, J. Jegan, T.B. Pushpa, R. Gokulan, **Laura Bulgariu**, Biochar for removal of dyes in contaminated water: an overview, *Biochar*, 4, (2022), 10.
17. D.I. Ferțu, **Laura Bulgariu**, M. Gavrilăscu, Modeling and Optimization of Heavy Metals Biosorption by Low-Cost Sorbents Using Response Surface Methodology, *Processes*, 10(3), (2022), 523.
18. A. Soudani, L. Youcef, **Laura Bulgariu**, S. Youcef, K. Toumi, N. Soudani, Characterizing and modeling of Oak fruit shells biochar as an adsorbent for the removal of Cu, Cd, and Zn in single and in competitive systems, *Chemical Engineering Research and Design*, 188, (2022), 972-987.
19. H.B. Ortiz-Oliveros, N. Ouerfelli, D. Cruz-Gonzalez, P. Avila-Perez, **Laura Bulgariu**, M.H. Flaifel, F.M. Abouzeid, Modeling of the relationship between the thermodynamic parameters ΔH° and ΔS° with temperature in the removal of Pb ions in aqueous medium: Case study. *Chemical Physics Letters*, 814, (2023), 140329.
20. A.A. Ciobanu, D. Bulgariu, I.A. Ionescu, D.M. Puiu, G.G. Vasile, **Laura Bulgariu**, Evaluation of Thermodynamic Parameters for Cu(II) Ions Biosorption on Algae Biomass and Derived Biochars, *Symmetry*, 15, (2023), 1500.