

ANDREI-IONUȚ SIMION
Ș. I. univ. dr. ing. ec.

Universitatea „Vasile Alecsandri” din Bacău, Facultatea de Inginerie
Departamentul de Inginerie Chimică și Alimentară
Calea Mărășești 157, 600115, Bacău, România
Telefon: +40 234/542.411, int. 233, Fax: +40 234/580170
E-mail: asimion@ub.ro

LISTA DE 10 LUCRĂRI RELEVANTE

1. **Simion, A.I.**, Grigoraș, C.G., Favier L., (2025), Batch Adsorption of Orange II Dye on a New Green Hydrogel – Study on Working Parameters and Process Enhancement, *Gels*, ISSN 2310-2861, **11**(1), 79.
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10. **Simion, A.I.**, Rusu, L., Ștefănescu, I., Gavrilă, L., (2008), Influence of Various Thermal Treatments over Vitamin C Concentration in Lemons, *Scientific Study & Research - Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, **IX**(4), p. 519-530. WOS: 000217215100011, IF₂₀₂₄ = 0,7

TEZA DE DOCTORAT

Cercetări privind metode și tehnologii de valorificare a subproduselor din industria zahărului – Impact tehnic și ecologic

Universitatea Tehnică „Gh. Asachi” Iași, Facultatea de Inginerie Chimică și Protecția Mediului „Cristofor Simionescu”, Bulevardul Prof. Dimitrie Mangeron, nr. 73, Iași, 700050, România

BREVE TE DE INVENȚIE

1. *Procedeu de biodegradare anaerob pentru amestecul format din subprodusele organice industriale și produsele tip biofort organic ecologic realizate*, Nedeff, V., Ciobanu, D., Macoveanu, M., Chiriac, A., Rusu, L., **Simion, A.I.**, **R0129161-B1 C05F 5/00** (2006.01).
2. *Procedeu ecologic aerob de biodegradare a amestecului format din valorificarea subproduselor excedentare din industria lemnului și industria berii, cu produsele realizate; biofertilizatori organici ecologici*, Nedeff, V., Ciobanu, D., Macoveanu, M., Chiriac, A., Rusu, L., **Simion, A.I.**, **R0129229-B1 C05F 5/00** (2006.01).

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1. **Simion, A.I.**, Grigoraș, C.G., (2025), *Fenomene de transfer și operații unitare. Îndrumar de laborator. Ediția a II-a (revizuită și adăugită)*, ISBN 978-606-527-734-2, Editura Alma Mater, Bacău.
2. Grigoraș, C.G., **Simion, A.I.**, (2025), *Fenomene de transfer și operații unitare. Unități de măsură, bilanț de materiale, bilanț termic*, ISBN 978-606-527-733-5, Editura Alma Mater, Bacău.
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6. Azzouz, A., Zvolinschi A., **Simion, A.I.**, Grig I., (2001), *Utilaj și Tehnologie în Industria Laptelui. Îndrumar de laborator*, ISBN 974-8076-13-7, Casa Editorială Demiurg, Iași.

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2. **Simion, A.I.**, Hlihor, R.M., Favier, L. (2021). *Successful Use of Response Surface Methodology to Enhance the Degradation Efficiency of a Water Pollutant of Emerging Concern*. în: Ksibi, M., *et al.*, Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition). EMCEI 2019. Environmental Science and Engineering, ISBN 978-3-030-51209-5, Springer, Cham, Switzerland.

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4. Rusu, L., Grigoraș, C.G., **Simion, A.I.**, Suceveanu E.M., Istrate, B., Harja M. (2022), Biosorption Potential of Microbial and Residual Biomass of *Saccharomyces pastorianus* Immobilized in Calcium Alginate Matrix for Pharmaceuticals Removal from Aqueous Solutions, *Polymers*, ISSN 2073-4360, **14**(1), 2855.
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6. Rusu, L., Grigoraș, C.G., **Simion, A.I.**, Suceveanu E.M., Blaga A.C., Harja M. (2022), Encapsulation of *Saccharomyces pastorianus* Residual Biomass in Calcium Alginate Matrix with Insights in Ethacridine Lactate Biosorption, *Polymers*, ISSN 2073-4360, **14**(1), 170.
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7. Rusu, L., Grigoraș, C.G., Suceveanu E.M., **Simion, A.I.**, Dediu Botezatu A.V., Istrate B., Doroftei I. (2021), Eco-friendly biosorbents based on microbial biomass and natural polymers: synthesis, characterization and application for the removal of drugs and dyes from aqueous solutions, *Materials*, ISSN 1996-1944, **14**(17), 4810.
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9. Kadmi, Y., Favier, L., Yehya, T., Soutrel, I., **Simion, A.I.**, Vial, C., Wolbert, D., (2019), Controlling Contamination for Determination of Ultra-Trace Levels of Priority Pollutants Chlorophenols in Environmental Water Matrices, *Arabian Journal of Chemistry*, ISSN 1878-5352, **12**(8), p. 2905-2913.

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 13. **Simion, A.I.**, Grigoraş, C.G., Favier, L., Gavrilă, L., (2019), Mathematical Modelling and Prediction of Congo Red Adsorption on Cherry Stones Activated Carbon, *Studia UBB Chemia*, ISSN 1224-7154, **64**(2), p. 139-157.
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 15. **Simion, A.I.**, Grigoraş, C.G., Favier, L., Moroi, A.M., Kadmi, Y., Bahrim, G.E., (2017), Successful Fodder Yeast Production from Agro-industrial by Products Through a Statistical Optimization Approach, *Romanian Biotechnological Letters*, ISSN 1224-5984, **22**(3), p. 12671-12679.
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 16. Kadmi, Y., Favier, L., **Simion, A.I.**, Păcală, M.L., Rusu, L., Wolbert, D., (2017), Measurement of Pollution Levels of N-Nitroso Compounds of Health Concern in Water Using Ultra-Performance Liquid Chromatography-Tandem Mass Spectrometry, *Process Safety and Environmental Protection*, ISSN 0957-5820, **108**, p. 7-17.
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 17. Favier, L., Harja, M., **Simion, A.I.**, Rusu, L., Kadmi, Y., Păcală, M.L., Bouzaza, A., (2016), Advanced Oxidation Process for the Removal of Chlorinated Phenols in Aqueous Suspensions, *Journal of Environmental Protection and Ecology*, ISSN 1311-5065, **17**(3), p. 1132-1141.
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 19. Favier, L., **Simion, A.I.***, Matei, E., Grigoraş, C.G., Kadmi, Y., Bouzaza, A., (2016), Photocatalytic Oxidation of a Hazardous Phenolic Compound Over TiO₂ in a Batch System, *Environmental Engineering and Management Journal*, ISSN 1582-9596, **15**(5), p. 1059-1067.
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 21. Kadmi, Y., Favier, L., **Simion, A.I.**, Matei, E., Wolbert, D., (2016), Improved Determination of Dichloroacetic and Trichloroacetic Acids in Water by Solid Phase Extraction Followed by Ultra-High Performance Liquid Chromatography Tandem Mass Spectrometry, *Analytical Letters*, ISSN 0003-2719, **49**(3), p. 433-443.

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 27. Rusu, L., Harja, M., **Simion, A.I.**, Șuteu, D., Ciobanu, G., Favier-Teodorescu, L., (2014), Removal of Astrazone Blue from Aqueous Solutions onto Brown Peat. Equilibrium and Kinetics Studies, *Korean Journal of Chemical Engineering*, ISSN 0256-1115, **31**(6), p. 1008-1015. WOS: 000337060500013, DOI: 10.1007/s11814-014-0009-3, IF₂₀₂₄ = 3,2
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