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**Conf. univ. dr. ing. ec.**

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**LISTĂ LUCRĂRI RELEVANTE**

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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.  
WOS: 001403817800001, DOI: 10.3390/gels11010079, IF<sub>2024</sub> = 5,3
2. Grigoraș, C.G., **Simion, A.I.\***, (2024), Synthesis of a New Composite Material Derived from Cherry Stones and Sodium Alginate and its Application to the Adsorption of Methylene Blue from Aqueous Solution: Process Parameter Optimization, Kinetic Study, Equilibrium Isotherms, and Reusability, *Journal of Composites Science*, ISSN 2504-477X, **8**, 402.  
WOS: 001342945600001, DOI: 10.3390/jcs8100402, IF<sub>2024</sub> = 3,7
3. Grigoraș, C.G., **Simion, A.I.\***, Favier L., (2023), Exploration of Reactive Black 5 Dye Desorption from Composite Hydrogel Beads – Adsorbent Reusability, Kinetic and Equilibrium Isotherms, *Gels*, ISSN 2310-2861, **9**(4) 299.  
WOS: 000977481900001, DOI: 10.3390/gels9040299, IF<sub>2024</sub> = 5,3
4. Grigoraș, C.G., **Simion, A.I.\***, Favier L., Drob, C., Gavrilă, L. (2022), Performance of Dye Removal from Single and Binary Component Systems by Adsorption on Composite Hydrogel Beads Derived from Fruits Wastes Entrapped in Natural Polymeric Matrix, *Gels*, ISSN 2310-2861, **8**(12), 795.  
WOS: 000901031500001, DOI: 10.3390/gels8120795, IF<sub>2024</sub> = 5,3
5. Muntianu, G., **Simion, A.I.\***, Grigoraș, C.G., Nistor, I.D., Jinescu, G., (2021), Aluminum Pillared Bentonite – Characterization and Synthesis Optimization by Response Surface Methodology, *Studia UBB Chemia*, ISSN 1224-7154, **66**(1), p. 73-88.  
WOS: 000637282000007, DOI: 10.24193/subbchem.2021.1.06, IF<sub>2024</sub> = 0,5
6. Favier, L., Ungureanu, C.V., **Simion, A.I.**, Bahrim, G., Vial, C., (2021), Enhancing the biodegradation efficiency of a emergent refractory water pollutant by a bacterial isolate through a statistical process optimization approach, *Process Safety and Environmental Protection*, ISSN 0957-5820, **148**, p. 1133-1145.  
WOS: 000637217000092, DOI: 10.1016/j.psep.2021.02.012, IF<sub>2024</sub> = 7,8
7. Grigoraș, C.G., **Simion, A.I.**, Favier, L., Gavrilă, L., (2020), Congo Red Removal from Aqueous Effluents by Adsorption on Cherry Stones Activated Carbon, *Environmental Engineering and Management Journal*, ISSN 1582-9596, **19**(2), p. 247-254.  
WOS: 000531733600007, IF<sub>2024</sub> = 0,9
8. **Simion, A.I.**, Grigoraș, 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.  
WOS: 000477816000013, DOI: 10.24193/subbchem.2019.2.12, IF<sub>2024</sub> = 0,5
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## TEZA DE DOCTORAT

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*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

## BREVETE DE INVENȚIE

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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.**, **RO129161-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.**, **RO129229-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.
3. **Simion, A.I.**, Grigoraș, C.G., Gavrilă, L., (2015), *Fenomene de transfer și operații unitare: îndrumar de laborator*, ISBN 978-606-527-45897-7, Editura Alma Mater, Bacău.
4. Grigoraș, C.G., **Simion, A.I.**, Gavrilă, L., (2015), *Depoluarea efluenților din industria alimentară și biotehnologii: îndrumar de laborator*, ISBN 978-606-527-457-0, Editura Alma Mater, Bacău.
5. **Simion, A.I.**, Grigoraș, C.G., (2014), *Tehnici de fabricare a produselor ecologice. Îndrumar de laborator*, ISBN 978-606-527-339-9, Editura Alma Mater, Bacău.
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.

## CAPITOLE DE CĂRȚI PUBLICATE

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1. Rusu L., Grigoraș C.G., Suceveanu E.M., **Simion A.I.**, Dediu Botezatu A.V., Istrate B., Doroftei I. (2024): *Eco-friendly biosorbents based on microbial biomass and natural polymers: synthesis, characterization and application for the removal of drugs and dyes from aqueous solutions*, în: Munteanu, C., Doroftei, I., *Advanced Materials for Multifunctional Applications*, ISBN 978-3-7258-1539-5, MDPI AG, Basel, Switzerland.

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 (2<sup>nd</sup> Edition)*. EMCEI 2019. Environmental Science and Engineering, ISBN 978-3-030-51209-5, Springer, Cham, Switzerland.

## LUCRĂRI PUBLICATE ÎN REVISTE INDEXATE ISI

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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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WOS: 001342945600001, DOI: 10.3390/jcs8100402, IF<sub>2024</sub> = 3,7
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WOS: 000977481900001, DOI: 10.3390/gels9040299, IF<sub>2024</sub> = 5,3
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6. Grigoraș, C.G., **Simion, A.I.\***, Favier L., Drob, C., Gavrilă, L. (2022), Performance of Dye Removal from Single and Binary Component Systems by Adsorption on Composite Hydrogel Beads Derived from Fruits Wastes Entrapped in Natural Polymeric Matrix, *Gels*, ISSN 2310-2861, **8**(12), 795.  
WOS: 000901031500001, DOI: 10.3390/gels8120795, IF<sub>2024</sub> = 5,3
7. Rusu, L., Grigoraș, C.G., **Simion, A.I.**, Suceveanu E.M., Schnakovszky, C., Favier L. (2022), Investigation on Biosorption of Pharmaceuticals from Aqueous Solutions by Biocomposite Material Based on Microbial Bio-mass and Natural Polymer: Process Variables Optimization and Kinetic Studies, *Polymers*, ISSN 2073-4360, **14**(16), 3388.  
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8. 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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  13. Muntianu, G., **Simion, A.I.\***, Grigoraş, C.G., Nistor, I.D., Jinescu, G., (2021), Aluminum Pillared Bentonite – Characterization and Synthesis Optimization by Response Surface Methodology, *Studia UBB Chemia*, ISSN 1224-7154, **66**(1), p. 73-88.  
WOS: 000637282000007, DOI: 10.24193/subbchem.2021.1.06, IF<sub>2024</sub> = 0,5
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## CONTRACTE NAȚIONALE ȘI INTERNAȚIONALE

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1. 2020 – 2022 – membru, „Obținerea de materiale cu valoare adăugată prin valorificarea subproduselor industriale – AddValueMat” .  
PN-III-P2-2.1-PED-2019-1063.
2. 2018 – 2020 – membru (Expert selecție grup țintă, Coordonator rețea de parteneriate), „Parteneriat pentru stagii de practică - Primul pas pentru o carieră în industria alimentară” .  
POCU/90/6.13/6.14/108612/05.07.2018 (49063/05.07.2018).
3. 2013 – membru, „Collège doctoral francophone BIOTECH” .  
BIOTECH, 20664/21.11.2013.
4. 2003 – 2005 – membru (Expert pe termen scurt), „Calitate și expertiză în elaborarea și implementarea metodologiei de obținere și testare a produselor competitive prin formarea profesională în cadrul unor noi programe de master cu impact major pe piața muncii” .  
POSDRU/86/1.2/S/56711.

16/02/2026

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