

LISTA LUCRĂRILOR ȘTIINȚIFICE

Prof.univ.dr.ing.habil. Lăcrămioara Rusu

A. Teza de abilitare

Titlul tezei: “Innovative materials and processes with application in environmental protection” (susținere publică 22.09.2022).

Domeniu: Ingineria Mediului

Acordare atestat conform OME 6353/05.12.2022.

B. Teza de doctorat

Titlul tezei: „Contribuții la studiul proceselor de recuperare a unor metale din catalizatori uzați”

Conducător de doctorat: Prof.univ.dr.ing. Ion Balasanian, Facultatea de Chimie Industrială, Universitatea Tehnică „Gheorghe Asachi” din Iași

Domeniu: Inginerie Chimică

Titlul științific de doctor conferit prin OMEN nr. 3467/16.03.2001

C. Articole publicate în reviste din fluxul științific internațional principal

C.1. Articole publicate în reviste cotate ISI

1. Suteu, D., Blaga, A. C., Rusu, L*, Puitel, A. C., & Tataru-Farmus, R. E. (2026). Transforming Residual Microbial Biomass into High-Value Bicomposite Material for Reactive-Dye Removal: Insights from Batch Investigations to Fluidized-Bed Reactor Applications. *Materials (Special Issue Recent Innovations in Adsorbent Materials for Emerging Water Pollutants)*, eISSN:1996-1944,19(16), 3534.
<https://doi.org/10.3390/ma19163534>
WOS:001859849400001
2. Niță, N. T., Suceveanu, E. M., Nedeff, F. M., Favier, L., Herghelegiu, E., & Rusu, L*. (2026). Design and Application of a Sawdust–Alginate Biocomposite for Sustainable Cationic Dyes Removal from Aqueous Solutions, *Polymers (Special Issue Polymer Materials for Ecological and Environmental Applications)*, eISSN 2073-4360, 18(9), 1136.
<https://doi.org/10.3390/polym18091136>
WOS:001763477800001
3. Fanache M., Rusu L*, Vasiliu L., Lazăr L., & Harja, M*. (2026). Transforming windows glass waste into functional aggregates for sustainable composite production. *Scientific Study & Research, Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, Volume 27, No. 2, pp. 223 – 240,
<https://doi.org/10.29081/ChIBA.2026.681>
4. Suceveanu E. M., Nita N-T., Rusu L*. (2025). Synthesis, Characterization and Potentia Application of Biocomposite Material Based on Sawdust Biomass for Removal of Persistent Organic Pollutants from Aqueous Solutions. *Scientific Study & Research, Chemistry & Chemical Engineering, Biotechnology, Food Industry/* Volume 26, No. 3, pp. 335 – 351, ISSN 1582-540X;
<https://doi.org/10.29081/ChIBA.2025.653>
WOS:001664805500003

5. Niță, N. T., Suceveanu, E. M., Nedeff, F. M., Tița, O., & **Rusu, L.*** (2024). Biocomposite Material Based on *Lactococcus lactis* sp. Immobilized in Natural Polymer Matrix for Pharmaceutical Removal from Aqueous Media. *Polymers*, eISSN 2073-4360, 16(13), 1804.
<https://doi.org/10.3390/polym16131804>
WOS:001268242500001
6. Vasiliu L., Lazar L., Rusu L., Harja M. (2024). Effect of alternative raw materials over clincker quality and CO₂ emissions, *Scientific Study & Research. Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, 25(3), 325-334.
WOS:001334270100008
7. Tița, O., Constantinescu, M. A., **Rusu, L.***, & Tița, M. A. (2024). Natural Polymers as Carriers for Encapsulation of Volatile Oils: Applications and Perspectives in Food Products. *Polymers*, eISSN 2073-4360, 16(8), 1026.
<https://doi.org/10.3390/polym16081026>
WOS:001210398300001
8. Opruța, T., Tița, M., Constantinescu, A., **Rusu, L.**, & Tița, O. (2024). Characterization of *Juniperus communis* L. essential oil obtained from berries harvested from the Balkan area. *Scientific Study & Research. Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, 25(1), 91-99.
WOS:001196254200001
9. Suteu, D., Blaga, A. C., **Rusu, L.***, & Tanasa, A. M. (2024). *Saccharomyces pastorianus* Residual Biomass Immobilized in a Polymer Matrix as a Biosorbent for Reactive Dye Removal: Investigations in a Dynamic System. *Polymers*, eISSN 2073-4360, 16(4), 491.
<https://doi.org/10.3390/polym16040491>
WOS:001177127700001
10. Dabija A.*, **Rusu L.**, Codina G.G. (2023). Studies on the Manufacturing of Food Products Using Unconventional Raw Materials, *Applied Sciences*, eISSN: 2076-3417. 13 (13), 7990.
<https://doi.org/10.3390/app13137990>
WOS:001032308400001
11. **Rusu, L.***, Suceveanu, E. M., Blaga, A. C., Nedeff, F. M., & Șuteu, D. (2023). Insights into Recent Advances of Biomaterials Based on Microbial Biomass and Natural Polymers for Sustainable Removal of Pharmaceuticals Residues. *Polymers*, eISSN 2073-4360, 15(13), 2923.
<https://doi.org/10.3390/polym15132923>
WOS:001028305700001
12. Tița, M. A., Constantinescu, M. A., Opruța, T. I., Bătușaru, C., **Rusu, L.***, & Tița, O. (2023). Kefir Enriched with Encapsulated Volatile Oils: Investigation of Antimicrobial Activity and Chemical Composition. *Applied Sciences*, 13(5), 2993. eISSN: 2076-3417,
<https://doi.org/10.3390/app13052993>
WOS:000947172900001
13. Daraban, G. M., **Rusu, L.***, Dinica, R. M., Roșca, M., Badeanu, M., Mihaila, M. D. I., & Suteu, D.* (2022). Exploring the Antioxidant and Bioinsecticidal Activity of Spontaneous Flora Vegetal Extracts for Plant Protection and Prevention of Soil Contamination. *Separations*, ISSN:2297-8739, 9(9), 260.
<https://doi.org/10.3390/separations9090260>
WOS:000859605900001
14. **Rusu, L. ***, Grigoraș, C. G., Simion, A. I., Suceveanu, E. M., Schnakovszky, C., & Favier, L. (2022). Investigation into Biosorption of Pharmaceuticals from Aqueous Solutions by Biocomposite Material Based on Microbial Biomass and Natural Polymer: Process Variables Optimization and Kinetic Studies. *Polymers*, eISSN 2073-4360, 14(16), 3388.

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- <https://doi.org/10.3390/polym14163388>
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15. **Rusu, L.***, Grigoraș, C. G., Simion, A. I., Suceveanu, E. M., Dediu Botezatu, A. V., & Harja, M. (2022). Biosorptive Removal of Ethacridine Lactate from Aqueous Solutions by *Saccharomyces Pastorianus* Residual Bio-mass/Calcium Alginate Composite Beads: Fixed-bed Column Study. *Materials*, eISSN:1996-1944, 15(13), 4657.
<https://doi.org/10.3390/ma15134657>
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16. **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*, eISSN 2073-4360, 14(14), 2855.
<https://doi.org/10.3390/polym14142855>
WOS:000832305000001
17. **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*, eISSN:2073-4360, 14(1), 170.;
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18. Istrate, A. M., Dabija, A., Codină, G. G., & **Rusu, L.*** (2021). Influence of hemp flour on dough rheology and bread quality. *Scientific Study & Research. Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, 22(4), 521-531.
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19. **Rusu, L.***, Grigoraș, C. G., Simion, A. I., Suceveanu, E. M., Șuteu, D., & Harja, M. (2021). Application of *Saccharomyces cerevisiae*/calcium alginate composite beads for cephalixin antibiotic biosorption from aqueous solutions. *Materials*, eISSN:1996-1944, 14(16), 4728.
<https://doi.org/10.3390/ma14164728>
WOS:000689581500001
20. **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*, eISSN:1996-1944, 14(17), 4810.,
<https://doi.org/10.3390/ma14174810>
WOS:000694414700001
21. Horciu, L. I., Zaharia, C., Blaga, A. C., **Rusu, L.**, & Suteu, D. (2021). Brilliant Red HE-3B Dye Biosorption by Immobilized Residual Consortium *Bacillus* sp. Biomass: Fixed-Bed Column Studies. *Applied Sciences*, eISSN: 2076-3417, 11(10), 4498.,
<https://doi.org/10.3390/app11104498>
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22. Daraban, G. M., Zaharia, C., **Rusu, L.**, Puitel, A. C., Badeanu, M., & Suteu, D. (2021). Ultrasonic extraction for preparation of plant extracts with bioinsecticidal effects on pest from seed deposits. *Studia Universitatis Babes-Bolyai, Chemia*, ISSN:1224-7154, 66(2), 309-324., DOI:10.24193/subbchem.2021.2.27
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23. Suteu, D., **Rusu, L.**, Zaharia, C., Badeanu, M., & Daraban, G. M. (2020). Challenge of utilization vegetal extracts as natural plant protection products. *Applied Sciences*, eISSN: 2076-3417, 10(24), 8913.
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24. Horciu, I. L., Blaga, A. C., **Rusu, L.**, Zaharia, C., & Suteu, D. (2020). Biosorption of reactive dyes from aqueous media using the *Bacillus* sp. residual biomass. *Desalination and Water Treatment*, ISSN:1944-3994 (Print), ISSN:1944-3986(Online), 195, 353-360. doi: 10.5004/dwt.2020.25901
WOS:000558661500035
25. Alio, M. A., Tugui, O. C., **Rusu, L.**, Pons, A., & Vial, C. (2020). Hydrolysis and fermentation steps of a pretreated sawmill mixed feedstock for bioethanol production in a wood biorefinery. *Bioresource technology*, ISSN:0960-8524, eISSN:1873-2976, 310, 123412. <https://doi.org/10.1016/j.biortech.2020.123412>
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26. Nica, I., Biliuta, G., Zaharia, C., **Rusu, L.**, Coseri, S., & Suteu, D. (2020). Fixed-bed-column studies for methylene blue removal by cellulose cellets. *Environmental Engineering & Management Journal (EEMJ)*, ISSN: 1582-9596, 19(2), 269-279.
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27. Dabija, A., Oroian, M., Codină, G. G., & **Rusu, L.*** (2020). Assessment the influence of the main technological factors on yogurt quality. *Scientific Study & Research. Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, 21(1), 83-94.
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28. Hultuana, E. D., Favier, L., **Rusu, L.**, Cretescu, I., Ciobanu, G., & Harja, M. (2020). Packed column simulation for CO₂ chemisorption in activated solutions. *Environmental Engineering & Management Journal (EEMJ)*, ISSN: 1582-9596, 19(2), 325-333.
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29. Vrinceanu, N., Hlihor, R. M., Simion, A. I., **Rusu, L.***, Fekete-Kertész, I., Barka, N., & Favier, L. (2019). New evidence of the enhanced elimination of a persistent drug used as a lipid absorption inhibitor by advanced oxidation with UV-A and nanosized catalysts. *Catalysts*, eISSN 2073-4344, 9(9), 761.
<https://doi.org/10.3390/catal9090761>
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30. Favier, L., **Rusu, L.***, Simion, A. I., Hlihor, R. M., Pacala, M. L., & Augustyniak, A. (2019). Efficient degradation of clofibric acid by heterogeneous photocatalytic oxidation process. *Environmental Engineering and Management Journal*, ISSN 1582-9596, 18(8), 1683-1692.
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31. Acatrinei-Insuratelu, O. A., Buftia, G., Lazar, I. M., & **Rusu, L.** (2019). Aerobic composting of mixing sewage sludge with green waste from lawn grass. *Environmental Engineering and Management Journal*, ISSN 1582-9596, eISSN:1843-3707, 18(8), 1789-1798.
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32. Suteu, D., Biliuta, G., **Rusu, L.***, Coseri, S., Vial, C., & Nica, I. (2019). A regenerable microporous adsorbent based on microcrystalline cellulose for organic pollutants adsorption. *Desalination and Water Treatment*, ISSN:1944-3994, eISSN:1944-3986, 146, 176-187., doi: 10.5004/dwt.2019.23638
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33. Harja, M., Ciobanu, G., **Rusu, L.***, & Lazăr, L. (2018). Effectiveness factor approach for chemical absorption process. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 17(4), 813-820.
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34. Dabija, A., Codină, G. G., Gâtlan, A. M., & **Rusu, L.*** (2018). Quality assessment of yogurt enriched with different types of fibers. *Cyta-Journal of food*, ISSN:1947-6337, eISSN:1947-6345, 16(1), 859-867.
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35. Dabija, A., Codină, G. G., Gâtlan, A. M., Sănduleac, E. T., & **Rusu, L.* (2018)**. Effects of some vegetable proteins addition on yogurt quality. *Scientific Study & Research. Chemistry & Chemical Engineering, Biotechnology, Food Industry*, ISSN 1582-540X, 19(2), 181-192.
WOS:000436394900007
36. Dabija, A., Codină, G. G., Ropciuc, S., Gâtlan, A. M., & **Rusu, L.* (2018)**. Assessment of the antioxidant activity and quality attributes of yogurt enhanced with wild herbs extracts. *Journal of Food Quality*, ISSN: 0146-9428, eISSN: 1745-4557, 2018, 5329386.
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37. Kadmi, Y., Favier, L., Simion, A. I., **Rusu, L.**, Pacala, M. 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, eISSN:1744-3598, 108, 7-17.
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38. Ciobanu, G., Harja, M., & **Rusu, L. (2017)**. Biomimetic hydroxyapatite-silver coatings on titanium surfaces. *Revue Roumaine de Chimie*, ISSN: 0035-3930, 62(4-5), 449-454.
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39. **Rusu, L.***, Suceveanu, M., Șuteu, D., Favier, L., & Harja, M. (2017). Assessment of groundwater and surface water contamination by landfill leachate: a case study in Neamt county, Romania. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 16(3), 633-641.
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40. Suteu, D., Coseri, S., & **Rusu, L. (2016)**. Kinetics studies on the adsorption behaviour of Basic Blue 9 dye on macroporous ion exchanger resins. *Desalination and Water Treatment*, ISSN:1944-3994, eISSN:1944-3986, 57(31), 14665-14673.
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41. Suteu, D., Zaharia, C., Popovici, C., Malutan, T., **Rusu, L.***, & Tabacaru, L. (2016). Wood waste as a renewable source of energy. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 15(3), 665-673.
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42. Favier, L., Harja, M., Simion, A. I., **Rusu, L.**, Kadmi, Y., Pacala, 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), 1132-1141.
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43. **Rusu, L.***, Harja, M., Suteu, D., Dabija, A., & Favier, L. (2016). Pesticide residues contamination of milk and dairy products. A case study: Bacau district area, Romania. *Journal of Environmental Protection and Ecology*, ISSN:1311-5065, 17(3), 1229-1241.
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44. Dumitrescu, A. M., Jucan, V., **Rusu, L.**, Iordan, A. R., & Palamaru, M. N. (2015). The peat–template agent for Ni ferrite obtainment. *Revue Roumaine de Chimie*, ISSN: 0035-3930, 60(11-12), 1033-1037.
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45. Favier, L., Simion, A.I., **Rusu, L.**, Pacala, M. L., Grigoras, C., & Bouzaza, A. (2015). Removal of an organic refractory compound by photocatalysis in batch reactor-kinetic studies. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 14(6), 1327-1328. DOI:10.30638/eemj.2015.144
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46. Kadmi, Y., Favier, L., Harja, M., Ionut Simion, A., **Rusu, L.**, & Wolbert, D. (2015). A new strategy for pentachlorophenol monitoring in water samples using ultra-high performance liquid chromatography-mass spectrometry tandem. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 14(3), 567-574.
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47. Suteu, D., Biliuta, G., **Rusu, L.**, Coseri, S., & Nacu, G. (2015). Cellulose Cellets as new type of adsorbent for the removal of dyes from aqueous media. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 14(3), 525-532. DOI:10.30638/eemj.2015.056
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48. **Rusu, L.***, Harja, M., Simion, A. I., Suteu, D., Ciobanu, G., & Favier, L. (2014). Removal of Astrazone Blue from aqueous solutions onto brown peat. Equilibrium and kinetics studies. *Korean Journal of Chemical Engineering*, ISSN: 0256-1115, eISSN: 1975-7220, 31(6), 1008-1015. DOI:10.1007/s11814-014-0009-3
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49. Ciobanu, G., Harja, M., **Rusu, L.**, Mocanu, A. M., & Luca, C. (2014). Acid Black 172 dye adsorption from aqueous solution by hydroxyapatite as low-cost adsorbent. *Korean Journal of Chemical Engineering*, ISSN: 0256-1115, eISSN: 1975-7220, 31(6), 1021-1027. DOI:10.1007/s11814-014-0040-4
WOS:000337060500015
50. **Rusu, L.***, Harja, M., Munteanu, C., Ciobanu, G., & Suteu, D. (2014). Red and brown peat use in removing pollutants from municipal and industrial wastewater. *Journal of Environmental Protection and Ecology*, ISSN 1311-5065, 15(4), 1690-1699.
WOS:000348254600019
51. Buema, G., Cimpeanu, S. M., Sutiman, D., Bucur, R. D., **Rusu, L.**, Cretescu, I., Ciocinta, R.C. & Harja, M. (2013). Lead removal from aqueous solution by bottom ash. *Journal of Food, Agriculture & Environment*, ISSN 1459-0255, 11(1), 1137-1141.
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52. Simion, A. I., Dobrovici, P. E., **Rusu, L.***, Favier-Teodorescu, L., & Ciobanu, D. (2012). Mathematical modelling of the process of sugar beet pulp valorisation by acid hydrolysis. *Revue Roumaine de Chimie*, ISSN: 0035-3930, 57(11), 915-920.
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53. Suteu, D., & **Rusu, L.** (2012). Removal of methylene blue dye from aqueous solution using seashell wastes as biosorbent. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 11(11), 1977-1985. DOI:10.30638/eemj.2012.247
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54. Simion, A. I., Grigoraș, C. G., **Rusu, L.**, & Gavrilă, L. (2012). Modeling of the thermo-physical properties of liquids involved in food processing. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 11(11), 2035-2045.
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55. Simion, A. I., Dobrovici, P. E., **Rusu, L.**, Gavrilă, L., & Ciobanu, D. (2012). New possibilities for the valorization of sugar industry by-products. *Revue Roumaine de Chimie*, ISSN: 0035-3930, 57(6), 577-586.
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56. Harja, M., **Rusu, L.***, Bucur, D., & Ciocinta, R. C. (2012). Fly ash derived zeolites as adsorbents for Ni removal from wastewater. *Revue Roumaine de Chimie*, ISSN: 0035-3930, 57(6), 587-597.
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57. Ciocinta, R. C., Harja, M., Bucur, D., **Rusu, L.**, Barbuta, M., & Munteanu, C. (2012). Improving soil quality by adding modified ash. *Environmental Engineering and Management Journal*, ISSN 1582-9596, eISSN:1843-3707, 11(2), 297-305.
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58. Harja, M., Barbuta, M., **Rusu, L.**, Munteanu, C., Buema, G., & Doniga, E. (2011). Simultaneous removal of atrazine blue and lead onto low cost adsorbents based on power plant ash. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 10(3), 341-347.
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59. Harja, M., Ciocintă, R. C., Barbuta, M., **Rusu, L.**, Simion, A. I., & Bistricianu, I. L. (2010). CaCO₃ controllable synthesis by double exchange method using CaCl₂ residual solutions. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 9(11), 1571-1577.
DOI:10.30638/eemj.2010.214
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60. Harja, M., Cretescu, I., **Rusu, L.**, & Ciocinta, R. C. (2009). The influence of experimental factors on calcium carbonate morphology prepared by carbonation. *Revista de Chimie*, ISSN:0034-7752, 60(12), 1258-1263.
WOS:000274231200005
61. Harja, M., Bărbuță, M., **Rusu, L.**, & Apostolescu, N. (2008). Utilization of coal fly ash from power plants I. Ash characterization. *Environmental Engineering & Management Journal (EEMJ)*, ISSN 1582-9596, eISSN:1843-3707, 7(3), 289-294.
DOI:10.30638/eemj.2008.037 **WOS:000257826200016**
- Notă: *- autor principal (prim autor/corespondent)

C.2. Articole publicate în reviste indexate în baze de date internaționale (BDI)

1. Turcov, D., Zbranca, A., Rusu, L., & Șuteu, D. (2021). Lycopene–Background, perspectives and challenges in dermato-cosmetic formulas. *Bull. Polytech. Inst. Iasi Sect. Chem. Chem. Eng*, 67 (71), No. 2, 9-21.
2. Blaga, A. C., Horciu, I. L., Zaharia, C., Rusu, L., Grigoras, C., & Suteu, D. (2020). Biosorbents based on microorganisms. *Bull. Polytech. Inst. Iasi Sect. Chem. Chem. Eng*, 66(70), No. 4, 39-53.
3. Turcov, D., Rusu, L., Zbranca, A., & Suteu, D. (2020). New Dermatocosmetic Formulations Using Bioactive Compounds from Indigenous Natural Sources. *Bul. Inst. Polit Iași*, 66(70), 2, 67-76.
4. Daraban, G. M., Badeanu, M., Rusu, L., Zaharia, C., & Suteu, D. (2020). Vegetal extract from spontaneous Romanian flora with bioinsecticidal action. *Research Journal of Agricultural Science*, 52(4), 183-188.

5. Daraban G., Badeanu M., **Rusu L.**, Suteu D., (2018). Biopesticides a new challenge in assuring food quality and sustainable agriculture, *Lucrări Științifice USAMV Iași, Seria Horticultură*, ISSN - L = 1454 – 7376, (Print) ISSN = 1454 – 7376, (Online) = ISSN 2069 – 8275, (CD-ROM) = ISSN 2069 - 847X, 61 (1), 269-274.
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D. Articole publicate în proceedings sau volume ale conferințelor internaționale

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E. Alte lucrări și contribuții științifice

E.1. Articole publicate în volume ale conferințelor naționale cu participare internațională

1. Ciobanu, D., **Rusu L.**, Simion, A.I., Geangalau, S., (2009). Functional food and quality of life. The effect of some dietetic bakery products on the human health, Proceedings of Congress of the Academy of Romanian Scientists "Quality of Life", Timișoara, România (ISBN: 978-973-638-410-3), p. 121-128.

E.2. Prezentarea de lucrări științifice la conferințe internaționale (selecție 2012-2026)

1. Rusu L.*, Suceveanu E.-M., Niță N.-T., From Wood Waste to Advanced Biocomposites for Sustainable Water Treatment: Equilibrium Insights into Malachite Green Biosorption using a Novel Lignocellulosic Biocomposite, 1st edition of the International Conference on Fundamental and Applied Chemistry - New Frontiers for a Sustainable Life, CHEMSUSLIFE, Galați, Romania, 8 – 10 October 2026, <https://chemsuslife.ugal.ro/>
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7. Suteu D., **Rusu L.**, Tanasa A. M., (2025), Biosorbent based on residual vegetal biomass used for the retention of chemical pollutants, The 20th International Conference of Constructive Design and Technological Optimization in Machines Building Field, OPROTEH-2025, Bacau, Romania, May, 21-23, 2025, <http://oproteh.ub.ro>
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E.3. Prezentarea de lucrări științifice la conferințe naționale cu participare internațională

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4. Dabija A., **Rusu L.**, Alexa I.C., Enzimologie industrială , Editura Alma Mater, Bacau, **2007**, ISBN 978-973-1833-32-3, 192 pag.
5. **Istrati (Rusu), L.**, Harja M. Biotehnologii în protecția mediului, Ed. Tehnică – Info Chișinău, Republica Moldova, **2005**, ISBN 9975-63-147-7, 280 pag.
6. Harja M., **Istrati (Rusu) L.**, Smocot R., Tehnologia lianților anorganici, Editura Tehnică, Științifică și Didactică CERMI, Iași, **2003**, ISBN 973-667-004-X, 278pag.,
7. Miron N.D., **Istrati (Rusu) L.**, Chimie generală – Tehnici de laborator, Ed. Tehnica–Info Chișinău , Republica Moldova, **2002**, ISBN 9975-63-147-9, 218 pag.

Editor invitat (volum editat)

1. Dabija A., Codină G.G., Rusu L., Special Issue "Unconventional Raw Materials for Food Products, Applied Sciences, Ed. MDPI, 2023, ISBN 978-3-0365-8554-3 (Hbk), ISBN 978-3-0365-8555-0 (PDF), 248 pag., doi.org/10.3390/books978-3-0365-8555-0

Editor invitat

1. Dabija A., Codină G.G., **Rusu L.**, Applied Sciences (ISSN 2076-3417) FI: 2.700 (2021-2022), număr special "Unconventional Raw Materials for Food Products";
2. **Rusu L.**, Polymers (ISSN: 2073-4360), FI: 5.000 (2022-2023), număr special "Innovative Materials Based on Natural Polymers: Synthesis, Characterization and Applications,.,
3. **Rusu L.**, Polymers (ISSN: 2073-4360), FI: 4.900 (2024), număr special "Innovative Materials Based on Natural Polymers: Synthesis, Characterization and Applications, 2nd Edition"
4. Rusu L., Polymers (ISSN: 2073-4360), FI: 5.800 (2026), număr special "Engineered Natural Polymers for Environmental Applications" începând cu martie 2026.

5. Rusu L., Polymers (ISSN: 2073-4360), FI: 5.800 (2026), număr special "Advances in Chitosan-Based Composites: Manufacturing, Characterization, and Application" începând cu septembrie 2026.

H. Contracte de cercetare științifică

Director de proiect

1. **Soluții inovative și sustenabile pentru valorificarea deșeurilor de lemn rezultate de la fabricarea mobilei în vederea integrării în economia circulară**, (Acronim SustenWood) Contract de cercetare nr. 2/2024 (nr. înregistrare beneficiar 46/20.02.2024; nr. înregistrare executant 2738/22.02.2024), Beneficiar: SC WOODGRADE SRL, Executant: Universitatea „Vasile Alecsandri” din Bacău, Valoare contract = 57000 lei, Perioada: **2024-2025**
2. **Obținerea de Materiale cu Valoare Adaugată prin Valorificarea Subproduselor Industriale (AddValueMat), PN-III-P2-2.1-PED-2019-1063**, Contract finanțare: **490PED / 2020**, Valoare contract = **600 000 lei**, Perioada: **2020-2022**
3. Studiu privind influența factorilor poluanți de la S.C.PAL EKC S.R.L. asupra mediului, Nr. 3318 / 09.05.2005, 2005 – 2006
4. Obținerea unui îngrășământ ecologic pentru zonele montane. Grant de cercetare științifică, Beneficiar MCT, 1999.
5. Îngrășăminte lichide cu efect fungicid pentru cultura viței de vie și a pomilor fructiferi. Grant de cercetare științifică, Beneficiar MCT, 1997-1998.
6. Elaborarea tehnologiilor de recuperare a cuprului și magneziului și de obținere a stearatului de magneziu prin valorificarea catalizatorului uzat Cu-Mg-Al₂O₃; Contract de cercetare științifică, Beneficiar. SC Fibrex SA Săvinești, 1993-1995.
7. Tehnologie de obținere a auxiliarilor pentru industria firelor și fibrelor sintetice, a prelucrării maselor plastice și a cauciucului. Grant de cercetare științifică, Beneficiar MCT, 1993-1994.
8. Valorificarea catalizatorului uzat de la fabricarea margarinei, Grant de cercetare științifică, Beneficiar MCT, 1993.

Membru în echipă

1. Environment and wastes – Sustainable development and wastes, No. 3/376/30.07.2007, Valoare =11000 lei, 2007 – 2008.
2. Elaborarea unor tehnologii de obținere de îngrășăminte chimice, corelată cu cercetările privind procesul de degradare și tehnologiile de conservare a solurilor din Podișul Moldovei. Contract de cercetare științifică, Beneficiar Comisia teritorială inter-disciplinară pentru cercetare –dezvoltare MOLDOVA I, Iași, 1998.
3. Obținerea unor compuși pentru sertizarea semințelor cu efect nutritiv, stimulent și antidăunător. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1996-1997,
4. Valorificarea deșeurilor menajere din marile aglomerări urbane pentru obținerea unor îngrășăminte tip compost. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1995-1997.
5. Valorificarea carbonatului de calciu rezidual de la obținerea îngrășămintelor complexe în industria farmaceutică și cosmetică. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1995-1996.
6. Tehnologie de obținere a extractelor din plante pentru industria alimentară și cosmetică. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1994-1995.
7. Obținerea unui îngrășământ azotos pentru utilizare în horticultură și legumicultură. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1994-1995.

8. Soluție tehnologică privind modificarea tehnologiei de fabricare a îngrășămintelor cu fosfor prin atac nitric în vederea eliminării deșeurilor de carbonat de calciu. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1994-1995.
9. Valorificarea catalizatorului uzat Zn-Cr în vederea reintroducerii lui în circuitul economic. Contract de cercetare științifică. Beneficiar SC Fibrex SA Săvinești, 1993-1994.
10. Obținerea îngrășămintelor azotoase cu un conținut de maxim 2% Zn. Grant de cercetare științifică, Beneficiar Ministerul Cercetării și Tehnologiei, 1992-1993.

I. Contracte de cercetare științifică – finanțate de Uniunea Europeană

Membru în echipă

1. Titlu proiect: „Sistem integrat digital de testare și calibrare pentru contoare master de lichide altele decât apa”, Acronim SIDCAL, Programul Creștere Inteligentă, Digitalizare și Instrumente Financiare (PCIDIF), Contract de finanțare nr. 390070/23.09.2025, ID Cod SMIS: 336894, Perioada: 2025-2027, Valoare = 7014632,44 lei

J. Contracte de dezvoltare – finanțate de Uniunea Europeană

Manager proiect

1. Titlu proiect: „Parteneriat pentru stagii de practică - Primul pas pentru o carieră în industria alimentară” Cod SMIS 108612, Programul Operațional Capital Uman 2014-2020, Axa prioritară 6, Obiectivul tematic 10, Prioritatea de investiții 10.iv, OS. 6.13 și 6.14, Apel nr. POCU/90/6.13/6.14– Stagii de practică elevi și studenți în sectorul agroalimentar, industrie și servicii.” **ID Cod SMIS 2014+:108612.**
Contract de finanțare nr: **POCU/90/6.13/6.14/108612/05.07.2018** (49063/05.07.2018), Perioada: **2018-2020**, Valoare = **621 259,51 lei**

Membru în echipă

1. Titlu proiect: „Romania la orizont 2030: Creșterea relevanței internaționale prin internaționalizarea învățământului superior”, Programul Educație și Ocupare (PEO), 2021-2027, Cod SMIS 319112. Durata de implementare: 36 de luni (01.06.2024 – 31.05.2027) Buget alocat: 25.726.548,86 lei (Expert conținut: A4.1. Adaptarea mecanismelor de finanțare de la nivel internațional (PBRF) pentru sprijinirea dezvoltării continue a instituțiilor de învățământ superior pe model internațional, a proceselor acestora de cercetare, predare și învățare, în vederea creșterii calității, eficienței și relevanței acestora)

K. Contracte de dezvoltare

Membru în echipă

1. Titlu proiect: „Consolidarea strategiei de internaționalizare a UBc prin extinderea parteneriatelor și intensificarea mobilității academice”, Acronim **Inter_Connect_ UBc**; Contract de finanțare nr: CNFIS-FDI - 2023-0055, Perioada: **2023**, Valoare = 380.000 lei.

Bacău

20.10.2026

Prof.univ. dr.ing.habil. Lăcrămioara Rusu