

## **LISTA completă a lucrărilor publicate**

### **(1) Lista lucrărilor considerate a fi cele mai relevante**

1. Gabriel Mihăiță Daraban, **Raluca-Maria Hlihor**, Daniela Suteu, Pesticides vs. Biopesticides: From Pest Management to Toxicity and Impacts on the Environment and Human Health, *Toxics*, 2023, 11, 12, 983, DOI10.3390/toxics11120983 (IF=4.6, Q1). WOS: 001131262800001 **(3 citări în WOS)**
2. **Raluca Maria Hlihor**, Mihaela Roșca, Elena Niculina Drăgoi, Isabela Maria Simion, Lidia Favier, Maria Gavrilăscu, New insights into the application of fungal biomass for Chromium(VI) bioremoval from aqueous solutions using Design of Experiments and Differential Evolution based Neural Network approaches, *Chemical Engineering Research and Design*, 2023, 190, 233-254, <https://doi.org/10.1016/j.cherd.2022.12.024> (IF=4.29, Q2). WOS:000924906100001 **(4 citări în WOS)**
3. Simona Cecilia Ghiga, Isabela Maria Simion, Cătălina Filote, Mihaela Roșca, **Raluca Maria Hlihor**, Maria Gavrilăscu, Comparative Analysis of Three WEEE Management Scenarios Based on LCA Methodology: Case Study in the Municipality of Iasi, Romania, *Processes*, 2023, 11(5), 1305, <https://doi.org/10.3390/pr11051305> (IF=3.5, Q2). WOS:000996812900001 **(4 citări în WOS)**
4. **Raluca Maria Hlihor**, Mihaela Roșca, Laura Hagi-Zaleschi, Isabela Maria Simion, Gabriel Mihăiță Daraban, Vasile Stoleru, Medicinal plant growth in heavy metals contaminated soils: responses to metal stress and induced risks to human health, *Toxics*, 2022, 10, 499, <https://doi.org/10.3390/toxics10090499> (IF=4.472, Q1). WOS:000858736900001 **(14 citări în WOS)**
5. Cătălina Filote, Mihaela Roșca, **Raluca Maria Hlihor**, Petronela Cozma, Isabela Maria Simion, Maria Apostol, Maria Gavrilăscu, Sustainable application of biosorption and bioaccumulation of persistent pollutants in wastewater treatment: Current practice, *Processes*, 2021, 9(10), 1696, <https://doi.org/10.3390/pr9101696> (2021) (IF 2.847, Q2). WOS:000712801500001 **(41 citări în WOS)**
6. **Raluca-Maria Hlihor**, Manuela Olga Pogăcean, Mihaela Rosca, Petronela Cozma, Maria Gavrilăscu, Modelling the behavior of pesticide residues in tomatoes and their associated long-term exposure risks, *Journal of Environmental Management*, 233, 523-529 (2019) (IF 5.647, Q1). WOS:000459525100053 **(39 citări în WOS)**
7. **Raluca Maria Hlihor**, Hugo Figueiredo, Teresa Tavares, Maria Gavrilăscu, Biosorption potential of dead and living *Arthrobacter viscosus* biomass in the removal of Cr(VI): Batch and column studies, *Process Safety and Environmental Protection*, 108, 44-56 (2017) (IF 3.441, Q1). WOS:000405963400006 **(86 citări în WOS)**
8. Dana Luminița Sobariu, Daniela Ionela Tudorache Fertu, Mariana Diaconu, Lucian Vasile Pavel, **Raluca-Maria Hlihor**, Elena Niculina Drăgoi, Silvia Curteanu, Markus Lenz, Philippe François-Xavier Corvini, Maria Gavrilăscu, Rhizobacteria and plant symbiosis in heavy metal uptake and its implications for soil bioremediation, *New*

Biotechnology, 39, 125-134 (2017) (IF 3.733, Q1). WOS:000410912900015 (**82 citări în WOS**)

9. **Raluca Maria Hlihor**, Mariana Diaconu, Florin Leon, Silvia Curteanu, Teresa Tavares, Maria Gavrilescu, Experimental analysis and mathematical prediction of Cd(II) removal by biosorption using support vector machines and genetic algorithms, New Biotechnology, 32(3), 358-368 (2015) (IF 3.199, Q1). WOS:000353346000006 (**55 citări în WOS**)

10. **Raluca Maria Hlihor**, Maria Gavrilescu, Removal of some environmentally relevant heavy metals using low-cost natural sorbents, Environmental Engineering and Management Journal, 8, 353-372 (2009) (IF 0.885). WOS:000285523600025 (**64 citări în WOS**)

## **(2) Lista lucrărilor științifice/proiectelor/premiilor în domeniul disciplinelor din postul didactic**

### **A. Activitatea didactică**

#### **I. Publicarea de manuale universitare, tratate și monografii**

##### *1.1. În edituri naționale*

###### 1.1.1. Editate în limba română

1. **Raluca-Maria Hlihor**, Isabela Maria Simion, Laura Hagiuzaleschi, Maria Apostol, Mihaela Roșca, Gabriel Mihăiță Daraban, Stresul indus de metalele grele asupra plantelor medicinale și caracterizarea riscurilor pentru sănătatea umană, Editura "Ion Ionescu de la Brad", Iasi, Romania, ISBN 978-973-147-462-5 (2022) (**160 pagini, contribuție proprie 51%**).

2. **Raluca-Maria Hlihor**, Isabela Maria Simion, Cătălina Filote, Mihaela Roșca, Petronela Cozma, Maria Apostol, Maria Gavrilescu, Exploatarea tehnologiilor prietenoase cu mediul în vederea îndepărtării poluanților persistenți din apele uzate, Editura "Ion Ionescu de la Brad", Iasi, Romania, ISBN 978-973-147-463-2 (2022) (**220 pagini, contribuție proprie 25%**).

3. Maria Gavrilescu (coordonator), Mariana Diaconu, Laura Bulgariu, Irina Volf, Cezar Catrinescu, Camelia Smaranda, Petronela Cozma, **Raluca-Maria Hlihor**, Cristina Ghinea, Laura Carmen Apostol, Elena-Diana Comăniță, Mihaela Roșca, Sebastian Ionuț Vasiliță, Explorarea și exploatarea abilităților microorganismelor, plantelor și a interacțiunilor dintre acestea pentru bioremedierea mediului, ISBN 978-606-685-490-4, Performantica House, Iasi, Romania (2019) (**252 pagini, contribuție proprie 10%**).

4. Maria Gavrilescu, Igor Crețescu, Teodor Măluțan, Adrian Puițel, Camelia Smaranda, Petronela Cozma, **Raluca-Maria Hlihor**, Cristina Ghinea, Isabela Maria Simion, Elena-Diana Comăniță, Mihaela Roșca, Teofil Câmpean, Strategii și soluții pentru eco-inovarea și eco-proiectarea unor procese și produse din materiale reciclabile în contextul economiei circulare, 386 pp., ISBN 978-973-621-481-3, Editura Politehniun, Iași, România (2018) (**386 pagini, contribuție proprie 10%**).

5. **Raluca-Maria Hlihor**, Maria Gavrilescu (Ed.), Manuela Olga Pogăcean, Marius Gavrilescu, Petronela Cozma, Isabela Maria Simion, Mihaela Roșca, Modelarea dinamicii pesticidelor în produse vegetale și estimarea riscurilor asupra sănătății umane, ISBN 978-973-621-477-6, Editura Politehniun, Iași, România, (2018) (**218 pagini, contribuție proprie 25%**).

### 1.1.2. Editate în limbi de circulație internațională

1. Camelia Smaranda, **Raluca Maria Hlihor**, Laura Carmen Apostol, Laura Bulgariu, Mariana Diaconu, Maria Emiliana Fortuna, Maria Gavrilescu, Biosorption and bioaccumulation: Principles and potential applications in bioremediation, In: BIOSORPTION AND BIOACCUMULATION: Principles and applications in environmental bioremediation, Maria Gavrilescu (Ed.), pp. 29-74, POLITEHNIUM Publishing House, ISBN 978-973-621-457-8, Iași (2016) **(45 pagini, contribuție proprie 15%)**.
2. Laura Bulgariu, Laura Carmen Apostol, Camelia Smaranda, **Raluca-Maria Hlihor**, Mariana Diaconu, Maria Gavrilescu, Analytical assays, techniques and instruments, In: BIOSORPTION AND BIOACCUMULATION: Principles and applications in environmental bioremediation, Maria Gavrilescu (Ed.), pp. 125-142, POLITEHNIUM Publishing House, ISBN 978-973-621-457-8, Iași (2016) **(17 pagini, contribuție proprie 10%)**.
3. Laura-Carmen Apostol, **Raluca-Maria Hlihor**, Camelia Smaranda, Maria Gavrilescu, Biosorption and bioaccumulation of organic pollutants, In: BIOSORPTION AND BIOACCUMULATION: Principles and applications in environmental bioremediation, Maria Gavrilescu (Ed.), pp. 215-244, POLITEHNIUM Publishing House, ISBN 978-973-621-457-8, Iași (2016) **(29 pagini, contribuție proprie 15%)**.
4. Laura Bulgariu, **Raluca-Maria Hlihor**, Mariana Diaconu, Maria Gavrilescu, Biosorption and bioaccumulation of heavy metals, In: BIOSORPTION AND BIOACCUMULATION: Principles and applications in environmental bioremediation, Maria Gavrilescu (Ed.), pp. 143-214, POLITEHNIUM Publishing House, ISBN 978-973-621-457-8, Iași (2016) **(71 pagini, contribuție proprie 15%)**.
5. **Raluca-Maria Hlihor**, Laura Carmen Apostol, Camelia Smaranda, Isabela Maria Simion, Maria Emiliana Fortuna, Mariana Diaconu, Laura Bulgariu, Maria Gavrilescu, Target compounds and pollutants, biosorbents and bioaccumulators, BIOSORPTION AND BIOACCUMULATION: Principles and applications in environmental bioremediation, Maria Gavrilescu (Ed.), pp. 75-124, POLITEHNIUM Publishing House, ISBN 978-973-621-457-8, Iași (2016) **(49 pagini, contribuție proprie 51%)**.
6. Petronela Cozma, **Raluca-Maria Hlihor**, Laura-Carmen Apostol, Maria Gavrilescu, Biosystems and bioreactors for biosorption and bioaccumulation, In: BIOSORPTION AND BIOACCUMULATION: Principles and applications in environmental bioremediation, Maria Gavrilescu (Ed.), pp. 245-272, POLITEHNIUM Publishing House, ISBN 978-973-621-457-8, Iași (2016) **(27 pagini, contribuție proprie 10%)**.

### 1.2. În edituri din străinătate

1. **Raluca-Maria Hlihor**, Cozma Petronela, Maria Gavrilescu, Removal of heavy metals from the environment by phytoremediation and microbial remediation, In: Sustainable Solutions for Environmental Pollution, Volume 2: Air, Water and Soil Reclamation, Nour Shafik El-Gendy (Ed.), pp. 95-146, Scrivener Publishing Wiley, ISBN: 9781119827511 (2022) **(50 pagini, contribuție proprie 51%)**.
2. **Raluca-Maria Hlihor**, Elena Niculina Drăgoi, Mariana Diaconu, Lidia Favier, Silvia Curteanu, Maria Gavrilescu, Behind the mechanism of chromium (VI) removal and reduction from aqueous solutions by fungal biomass using a bio-inspired process modelling and optimization, In: Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition), Ksibi M. et al. (Eds.), Springer, Cham, eBook ISBN 978-3-030-51210-1, pp. 517-521,

[https://doi.org/10.1007/978-3-030-51210-1\\_82](https://doi.org/10.1007/978-3-030-51210-1_82) (2021) **(4 pagini, contribuție proprie 75%)**.

3. Andrei Ionut Simion, **Raluca Maria Hlihor**, Lidia Favier, Successful Use of Response Surface Methodology to Enhance the Degradation Efficiency of a Water Pollutant of Emerging Concern. In: Ksibi, M., et al. Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition). EMCEI 2019. Environmental Science and Engineering. Springer, Cham. [https://doi.org/10.1007/978-3-030-51210-1\\_74](https://doi.org/10.1007/978-3-030-51210-1_74) (2021) **(4 pagini, contribuție proprie 25%)**.

4. Mihaela Rosca, **Raluca-Maria Hlihor**, Maria Gavrilăscu, Bioremediation of persistent toxic substances – from conventional to new approaches in using microorganisms and plants, In: Microbial Technology for the Welfare of Society, Pankaj Kumar Arora (Ed.), vol. 17, Springer Singapore, pp. 289-312, [https://doi.org/10.1007/978-981-13-8844-6\\_14](https://doi.org/10.1007/978-981-13-8844-6_14) (2019) **(24 pagini, contribuție proprie 20%)**.

5. **Raluca-Maria Hlihor**, Laura Carmen Apostol, Maria Gavrilăscu, Environmental bioremediation by biosorption and bioaccumulation: principles and applications, In: Enhancing Cleanup of Environmental Pollutants, Volume 1: Biological Approaches, Anjum N., Gill S., Tuteja N., (Ed.), ISBN 978-3-319-55426-6, Springer Science+Business Media (New York), pp. 289-315, DOI 10.1007/978-3-319-55426-6\_14 (2017) **(26 pagini, contribuție proprie 33,3%)**.

### 1.3. Litografiate

1. **Hlihor R.M.**, 2011, *Sorption processes applied for the removal of heavy metals from contaminated environments*, PhD thesis, Gheorghe Asachi Technical University of Iasi, Romania 230 pp. (teză redactată în limba engleză și realizată în cotutelă cu Universitatea Minho, Braga Portugalia).

## II. Publicarea de alte cărți la nivel universitar (caiete de lucrări practice, îndrumătoare)

1. **Raluca-Maria Hlihor**, Poluarea apei și solului, În: Manual de practica specializarea Ingineria Mediului, Volumul II, Stan Teodor (Ed.), Editura “Ion Ionescu de la Brad”, Iasi, Romania, pp. 81-92, ISBN 978-973-147-453-3 (2022) **(10 pagini, contribuție proprie 100%)**.

2. **Raluca-Maria Hlihor**, Monitorizarea și diagnoza calității mediului, În: Manual de practica specializarea Ingineria Mediului, Volumul II, Stan Teodor (Ed.), Editura “Ion Ionescu de la Brad”, Iasi, Romania, pp. 113-126, ISBN 978-973-147-453-3 (2022) **(14 pagini, contribuție proprie 100%)**.

3. **Raluca-Maria Hlihor**, Isabela Maria Simion, Tehnologii cu impact redus asupra mediului, În: Manual de practica specializarea Ingineria Mediului, Volumul II, Stan Teodor (Ed.), Editura “Ion Ionescu de la Brad”, Iasi, Romania, pp. 43-64, ISBN 978-973-147-453-3 (2022) **(22 pagini, contribuție proprie 50%)**.

4. **Raluca-Maria Hlihor**, Isabela Maria Simion, Poluarea apei și solului: Îndrumar de laborator, Editura Ecozone, Iași, Romania, 114 pp., ISBN 978-606-8625-12-6 (2016) **(70 pagini, contribuție proprie 50%)**.

## B. Activitatea de cercetare

### III. Granturi și contracte de cercetare științifică, extensie, formare resurse umane și dezvoltare câștigate prin competiție și derulate prin USV Iași

#### 3.1. Director de proiect

1. Cod proiect PN-III-P1-1.1-TE-2019-1200, Contract nr. TE 120 / 2020, Elaborarea unui cadru de estimare a riscurilor pentru sănătatea umană generate de contaminarea cu metale grele a produselor pe bază de plante utilizate în fitoterapie și cosmetică (RiskToxPlants), 15.09.2020-14.09.2022 (88923.13 euro, 9 membri)
2. Cod proiect PN-III-P2-2.1-PED-2019-2430, Contract nr. 439 PED / 2020, Strategii și soluții sustenabile privind epurarea apelor uzate utilizând metode prietenoase cu mediul: o abordare integrată a evaluărilor de mediu și economice (SusTrEE), 28.10.2020-28.10.2022 (123087.02 euro, 7 membri)
3. Cod proiect PN-III-P1-1.1-MC-2019-0450, Contract nr. 123/19.08.2019, Biomonitorizarea poluanților din mediu prin prisma testelor de ecotoxicitate, 05.11.2019-05.12.2019 (4652.74 euro, 1 membru)
4. Cod proiect PN-III-P1-1.1-MC-2018-2006, Contract nr. 435/22.10.2018, Stagiul de pregătire privind cuantificarea impacturilor generate de substanțele chimice prezente în plante asupra sănătății umane prin prisma analizei ciclului de viață, 02.09.2018-03.10.2018 (4713.85 euro, 1 membru)
5. Cod proiect PN-III-P1-1.1-MC-2017-2004, Contract nr. 484/18.12.2017, Stagiul de pregătire pentru transferul de cunoaștere și dezvoltarea capacităților privind evaluarea impactului asupra sănătății umane și mediului prin prisma analizei ciclului de viață, 06.02.2018-08.03.2018 (4755.73 euro, 1 membru)

#### 3.2. Membru în echipă

1. Cod proiect 2SOFT/1.2/83, Valorificarea inteligentă a deșeurilor agroalimentare, Director proiect: Conf. dr. Antoanela Patraș, 12.10.2020-02.03.2022 (81049.22 euro, 15 membri)
2. Cod proiect POCU/379/6/21/123458, Educație antreprenorială inovativă – EducAtlv, Director proiect: Prof.dr. Vasile Stoleru, 13.09.2019-31.10.2020 (788350.98 euro, 24 membri)
3. Acord de grant nr. 281/SGU/NC/II/12.12.2019, Îmbunătățirea performanțelor academice a studenților din anul I ai Facultății de Horticultură predispuși la abandon școlar (ROSE-PERFORMA), Director proiect: Conf. dr. Liliana Chelariu, 03.12.2019-03.12.2021 (38431.63 euro, 19 membri)
4. Proiect CNFIS-FDI-2018.0418, Modernizarea activității de predare-evaluare din învățământul superior agronomic și respectarea deontologiei și eticii academice, Director proiect: Prof.dr. Benone Păsărin, 01.07.2018 - 31.12.2018 (58880.41 euro, 8 membri)
5. Proiect FDI, Mecanisme de îmbunătățire a activității didactice și promovarea eticii actului academic în USAMV Iași, Director proiect: conf.dr. Ciprian Chiruță, 01.07.2017-31.12.2017 (42000.16 euro, 10 membri)

## IV. Lucrări științifice

### 4.1. Lucrări științifice publicate în reviste cotate CNCSIS categoria B

1. Maria Paiu, Lidia Favier, Doina Lutic, **Raluca-Maria Hlihor**, Maria Gavrilescu, Visible-light photocatalytic degradation of tartrazine using ZnO nanoparticles: preliminary phytotoxicity investigations on treated solutions, Buletinul Institutului Politehnic din Iași, 70 (74), 35-46, (2024). DOI: 10.5281/zenodo.11145259
2. Mihaela Rosca, Petronela Cozma, **Raluca-Maria Hlihor**, Environmental and human impacts of the toxic pesticides use in agriculture: a review, Proc. Rom. Acad., Series B, 25(3), 185–191 (2023).
3. Petronela Cozma, Mihaela Roșca, Isabela Maria Simion, **Raluca-Maria Hlihor**, Ecological risk assessment of heavy metals in soils and sediments: a review, Proc. Rom. Acad., Series B, 25(3), 193–200 (2023).
4. Mihaela Roșca, Elena-Diana Comăniță Ungureanu, **Raluca-Maria Hlihor**, Mariana Diaconu, Petronela Cozma, Maria Gavrilescu, Influence of some heavy metals on seed germination and plants growth, Annals of the Academy of Romanian Scientists, Series on Chemistry Sciences, 5(2), 1-16 (2020).
5. Dana Mihaela Asiminicesei, **Raluca-Maria Hlihor**, Maria Gavrilescu, Heavy metals - a source of contamination for medicinal plants and possible implications to human health, Lucrări Științifice Seria Horticultură, 63(1), 35-40 (2020).
6. Cătălina Filote, Mihaela Roșca, **Raluca-Maria Hlihor**, Overview of using living and non-living microorganisms for the removal of heavy metals from wastewaters, Research Journal of Agricultural Science, 52(4), 22-31 (2020).
7. Simona Cecilia Ghiga, **Raluca-Maria Hlihor**, Isabela Maria Simion, Cătălina Filote, Alessandra Bonoli, Maria Gavrilescu, Environmental impact caused by the waste of electrical and electronic equipment: an Italian scenario, Lucrări Științifice Seria Horticultură, 62(2), 137-148 (2019).
8. Mihaela Roșca, **Raluca-Maria Hlihor**, Elena-Diana Comăniță, Petronela Cozma, Isabela-Maria Simion, Maria Gavrilescu, The potential of some indigenous microorganisms and plants for the removal of heavy metals from soil, Lucrări Științifice Seria Horticultură, 60 (2), 65-72 (2017).
9. **Raluca-Maria Hlihor**, Manuela Olga Pogăcean, Mihaela Roșca, Petronela Cozma, Maria Gavrilescu, Dissipation behavior of pesticides applied in multiple treatments in apples, Lucrări Științifice Seria Horticultură, 60 (2), 73-82 (2017).
10. **Raluca Maria Hlihor**, Manuela Olga Pogăcean, Isabela Maria Simion, Petronela Cozma, Laura Carmen Apostol, Maria Gavrilescu, Assessment of human health risk of twelve pesticides applied in double dose in an apple orchard, Annals of the Academy of Romanian Scientists, Series on Physics and Chemistry, 1(1), 25-35 (2016).
11. Mariana Diaconu, Camelia Smaranda, **Raluca Maria Hlihor**, Maria Gavrilescu, Biomass in environmental remediation – a review, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LIX (LXIII), 97-113 (2013).
12. **Raluca Maria Hlihor**, Mariana Diaconu, Maria Gavrilescu, A comparison of kinetic models applied for Cd(II) removal by *S. cerevisiae*, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LVII(LXI), 163 – 171 (2011).
13. **Raluca Maria Hlihor**, Mariana Diaconu, Maria Gavrilescu, Influence of pH on Cr(VI) reduction and removal by *Saccharomyces cerevisiae*, Bulletin of the

Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LVII(LXI), 147- 153 (2011).

14. **Raluca Maria Hlihor**, Petronela Cozma, Cristina Ghinea, Vasile Lucian Pavel, Brindusa Mihaela Robu, Maria Gavrilescu, Thermodynamic study of Cd(II) sorption on soil, Scientific Papers. Agronomy series, 53, 93-95 (2010).

15. **Raluca Maria Hlihor**, Vasile Lucian Pavel, Dumitru Bulgariu, Maria Gavrilescu, Equilibrium study of Cd(II) sorption from aqueous solution onto soil: Effect of temperature, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LVI(LX), 37-46 (2010).

16. **Raluca Maria Hlihor**, Laura Carmen Apostol, Vasile Lucian Pavel, Camelia Smaranda, Brîndușa Mihaela Robu, Florentina Anca Căliman, Maria Gavrilescu, Overview on chromium occurrence in the environment and its remediation, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LV (LIX), 19-34 (2009).

17. Laura Carmen Apostol, **Raluca Maria Hlihor**, Camelia Smaranda, Vasile Lucian Pavel, Brindusa Mihaela Robu, Florentina Anca Caliman, Maria Gavrilescu, Life cycle impact assessment of pesticides: current issues and perspectives, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LV (LIX), 67 – 83 (2009).

18. **Raluca Maria Hlihor**, Maria Gavrilescu, Biosorption of heavy metals from the environment using yeasts as biosorbents, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LV (LIX), 21 – 37 (2009).

19. Vasile Lucian Pavel, **Raluca Maria Hlihor**, Florentina Anca Caliman, Maria Gavrilescu, Biophysico-chemical processes of heavy metals in soil environments, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, LIV (LVIII), 75-87 (2008).

#### 4.2. *Lucrări științifice publicate în reviste recenzate în BDI (Cabi, PubMed, SCOPUS, etc.)*

1. Mihaela Roșca, **Raluca-Maria Hlihor**, Petronela Cozma, Maria Gavrilescu, Tools for the characterization of pesticide risk in food products. An overview, International Proceedings of Chemical, Biological and Environmental Engineering, Vol. 101, 75-83, ISSN: 2010-4618, DOI: 0.7763/IPCBEE.2017.V101.11 (2017).

2. Elena-Diana Comăniță, Isabela Maria Simion, Petronela Cozma, **Raluca Maria Hlihor**, Teofil Campean, Maria Gavrilescu, Application of cost-benefit analysis for an eco-product manufactured from production waste, International Proceedings of Chemical, Biological and Environmental Engineering, Vol. 101, 91-98, ISSN: 2010-4618, DOI:10.7763/IPCBEE.2017.V101.13 (2017).

3. **Raluca Maria Hlihor**, Manuela Olga Pogacean, Brindusa Mihaela Robu Sluser, Maria Gavrilescu, Human health risk assessment of pesticide residues in field grown yellow peppers, International Proceedings of Chemical, Biological & Environmental Engineering, Environmental Science and Technology VII, 94, pp. 32-37, 2016, DOI:10.7763/IPCBEE.2016.V94.5.

#### 4.3. *Lucrări științifice publicate în reviste cotate ISI*

a. Lucrări publicate în rezumat în reviste ISI (ABSTRACT)

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b. Lucrări publicate în extenso (FULL TEXT PAPERS)

b1. În reviste fără factor de impact

1. Maria Brînză, Elena Liliana Chelariu, **Raluca Maria Hlihor**, Maria Gavrilescu, Lucia Draghia, The influence of controlled release fertilizers on the growth and flowering of *Lilium regale* species, *Environmental Engineering and Management Journal*, 18(5), 1153-1162 (2019). WOS:000473511200020
2. Lidia Favier, Lacramioara Rusu, Andrei Ionut Simion, **Raluca Maria Hlihor**, Mariana Liliana Pacala, Adrian Augustyniak, Efficient degradation of clofibric acid by heterogeneous photocatalytic oxidation process, *Environmental Engineering and Management Journal*, 18(8), 1683-1692 (2019). WOS:000482576500007
3. Manuela Olga Pogăcean, **Raluca Maria Hlihor**, Cristina Preda, Maria Gavrilescu, Humans in the environment. Comparative analysis and assessment of pesticide residues from field-grown tomatoes, *European Journal of Science and Theology*, 9, 79-94 (2013). WOS:000326907200009
4. **Raluca Maria Hlihor**, Mariana Diaconu, Ciprian Chelaru, Ion Sandu, Teresa Tavares, Maria Gavrilescu, Bioremediation of Cr(VI) Polluted Wastewaters by Sorption on Heat Inactivated *Saccharomyces cerevisiae* Biomass, *International Journal of Environmental Research*, 7, 581-594 (2013). WOS:000319952600007

b2. În reviste cu factor de impact (FI<1)

5. Manuela Olga Pogăcean, **Raluca Maria Hlihor**, Maria Gavrilescu, Monitoring pesticides degradation in apple fruits and potential effects of residues on human health, *Journal of Environmental Engineering and Landscape Management*, 22(3), 171-182 (2014) (IF 0.623). WOS:000342310100002
6. **Raluca Maria Hlihor**, Laura Bulgariu, Dana Luminita Sobariu, Mariana Diaconu, Teresa Tavares, Maria Gavrilescu, Recent advances in biosorption of heavy metals: Support tools for biosorption equilibrium, kinetics and mechanism, *Revue Roumaine de Chimie*, 59(6-7), 525-536 (2014) (IF 0.311). WOS:000350699200022
7. Vasile Lucian Pavel, Dumitru Bulgariu, Laura Bulgariu, **Raluca Maria Hlihor**, Maria Gavrilescu, Studies on sorption and transport processes of cadmium in soils, *Environmental Engineering and Management Journal*, 8, 1315-1320 (2009) (IF 0.885). WOS:000275306300002
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#### 4.4. În volume ale unor Congrese/Conferințe internaționale pe domenii (cu ISSN/ISBN)

1. **Raluca Maria Hlihor**, Maria Paiu, Petronela Cozma, Lidia Favier, Vasile Stoleru, Maria Gavrilescu, An approach towards modelling the human health risks posed by pesticides residues in lettuce, PROCEEDINGS OF THE International Scientific Congress "Life sciences, a challenge for the future", 17th-18th October 2019, Iasi, Romania, Filodiritto Editore – Proceedings, 2019, pp. 226-232, 2019.

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#### V. Cărți/prototipuri/brevete premiate

1. *Diploma of Silver Medal* pentru cartea: Stresul indus de metalele grele asupra plantelor medicinale și caracterizarea riscurilor pentru sănătatea umană, autori: **Raluca-Maria Hlihor**, Isabela Maria Simion, Laura Hagiuzaleschi, Maria Apostol, Mihaela Roșca, Gabriel Mihăiță Daraban, European Exhibition of Creativity and Innovation, 16th Edition of EUROINVENT, (Euroinvent Book Salon), 8 iunie 2024, Palace of Culture, Iasi

2. *Diploma of Gold Medal* pentru cartea: Modelarea dinamicii pesticidelor în produse vegetale și estimarea riscurilor asupra sănătății umane, autori: **Raluca-Maria Hlihor**, Maria Gavrilescu (Ed.), Manuela Olga Pogăcean, Marius Gavrilescu, Petronela Cozma, Isabela Maria Simion, Mihaela Roșca, European Exhibition of Creativity and Innovation, 15th Edition of EUROINVENT, (Euroinvent Book Salon), 11-23 Mai 2022, Palace of Culture, Iasi

3. *Diploma of Gold Medal* pentru cartea: Explorarea și exploatarea abilităților microorganismelor, plantelor și a interacțiunilor dintre acestea pentru bioremedierea mediului, autori: Maria Gavrilescu (coordonator), Mariana Diaconu, Laura Bulgariu, Irina Volf, Cezar Catrinescu, Camelia Smaranda, Petronela Cozma, **Raluca-Maria Hlihor**, Cristina Ghinea, Laura Carmen Apostol, Elena-Diana Comăniță, Mihaela Roșca, Sebastian Ionuț Vasilică European Exhibition of Creativity and Innovation, 14th Edition of EUROINVENT, (Euroinvent Book Salon), 26-28 Mai 2022, Palace of Culture, Iasi

4. *Diplomă de Excelență* la Salonul Inventica, Ediția a XII-a, Baia Mare (2018) pentru cererea de brevet "Procedeu de obținere a unor materiale de tip compozit destinate realizării elementelor constructive și funcționale ale europaletelor", autori: Gavrilescu Maria, Cretescu Igor, Malutan Teodor, Smaranda Camelia, Puitel Adrian Catalin, Cozma Petronela, **Hlihor Raluca Maria**, Ghinea Cristina, Simion Isabela Maria, Comanita Diana, Roșca Mihaela

5. *Diploma of Gold Medal*, EuroInvent 10th Edition 2018, EuroInvent Book Salon (2018), pentru cartea: Biosorption and Bioaccumulation - Principles and Applications in Environmental Bioremediation, autori: Maria Gavrilescu (Ed.), Mariana Diaconu, Laura Bulgariu, Maria Fortuna, Camelia Smaranda, Laura carmen Apostol, Raluca Maria Hlihor, Petronela Cozma, Cristina Ghinea, Madalina Petraru, Isabela Maria Simion, ISBN: 978- 973-621- 457-8

## VI. Lucrări științifice premiate

În țară:

1. *Best paper award* to Petronela Cozma, Mariana Minuț, Mihaela Roșca, **Raluca-Maria Hlihor**, Maria Paiu, Ionela-Cătălina Vasilachi, Diana-Elena Ungureanu-Comăniță, Maria Gavrilescu, for the paper: "Tolerance of White Mustard (*Sinapis Alba L.*) to Soil Polluted with Co(II), Cu(II), Ni(II) and Zn(II)" presented at the International Scientific Conference „Applications of Chemistry in Nanosciences and Biomaterials Engineering”, 28-30 June 2023, Romania

2. *Best paper of the conference section Engineering and Environmental Protection: Phytotoxicity effects of heavy metals on the inhibition of Lavandula angustifolia „Hidcote Blue”*, **Raluca-Maria Hlihor**, Maria Apostol, Laura Hagiuzaleschi, Isabela Maria Simion, Dana Mihaela Asimincesei, Maria Gavrilescu, LIFE SCIENCES TODAY FOR TOMORROW International Congress, 21-22 Octombrie 2021, Iasi, Romania

3. *Best paper of a young researcher of the conference section* to Roșca Mihaela, **Hlihor Raluca-Maria**, Mihalache Gabriela, Stoleru Vasile, for the paper "Heavy metals contamination of fruits and vegetables in Europe" presented at the International Conference „LIFE SCIENCES TODAY FOR TOMORROW International Congress”, 21-22 Octombrie 2021, Iasi, Romania

4. *Best paper of the live presentation* to Cătălina Filote, Mihaela Roșca, Isabela Maria Simion, **Raluca-Maria Hlihor**, for the paper "Continuous system bioremediation of wastewaters loaded with heavy metals using microorganisms" presented at the International Conference „LIFE SCIENCES TODAY FOR TOMORROW International Congress”, 21-22 Octombrie 2021, Iasi, Romania

5. *Best paper award* to for the paper "Initial Screening of Biosorption Process Modelling and Optimization for its Industrial Scale-up", Mihaela Roșca, **Raluca-Maria Hlihor**, Petronela Cozma, Cătălina Filote, Isabela-Maria Simion, Maria Apostol, Maria Gavrilescu, presented at the International Scientific Conference „Applications of Chemistry in Nanosciences and Biomaterials Engineering”, oferit de Academia Oamenilor de Știință din România, 25-26 iunie 2021

6. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECIS/2021-56919*, Modelling of health risk associated with the intake of pesticides from Romanian fruits and vegetables, Mariana Minuț, Mihaela Roșca, **Raluca-Maria Hlihor**, Petronela Cozma, Maria Gavrilescu, Sustainability, 12(23), 10035, <https://doi.org/10.3390/su122310035> (2020) (IF 3.251, Q2).

7. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECISI2021-67695*, New evidence of model crop *Brassica napus* L. in soil clean-up: comparison of tolerance and accumulation of lead and cadmium, Mihaela Rosca, Petronela Cozma, Mariana Minut, **Raluca-Maria Hlihor**, Camelia Bețianu, Mariana Diaconu, Maria Gavrilăscu, *Plants*, 2021, 10(10), 2051, <https://doi.org/10.3390/plants10102051> (2021) (IF 3.935, Q1).
8. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECISI2020-42287*, The effects of a microorganisms-based commercial product on the morphological, biochemical and yield of tomato plants under two different water regimes, C.S. Inculet, G. Mihalache, V.M. Sellitto, R.M. Hlihor, V. Stoleru, *Microorganisms*, 7(12), doi: 10.3390/microorganisms7120706 (2019) (IF 4.152, Q1).
9. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECISI2020-45947*, Characterization of heavy metal toxicity in some plants and microorganisms—a preliminary approach for environmental bioremediation, Mariana Diaconu, Lucian Vasile Pavel, Raluca-Maria Hlihor, Mihaela Rosca, Daniela Ionela Fertu, Markus Lenz, Philippe Xavier Corvini, Maria Gavrilăscu, *New Biotechnology*, 56, 130-139, <https://doi.org/10.1016/j.nbt.2020.01.003> (2020) (IF 5.079, Q1).
10. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECISI-2019-33093*, Modelling the behavior of pesticide residues in tomatoes and their associated long-term exposure risks, **Raluca-Maria Hlihor**, Manuela Olga Pogăcean, Mihaela Rosca, Petronela Cozma, Maria Gavrilăscu, *Journal of Environmental Management*, 233, 523-529 (2019) (IF 5.647, Q1).
11. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECISI2019-39127*, 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, Narcisa Vrinceanu, Raluca Maria Hlihor, Andrei Ionut Simion, Lacramioara Rusu, Ildikó Fekete-Kertész, Noureddine Barka, Lidia Favier, *Catalysts*, 9, 761, doi:10.3390/catal9090761 (2019) (IF 3.52, Q2).
12. *Premierea rezultatelor cercetării: PN-III-P1-1.1-PRECISI-2017-19004*, Rhizobacteria and plant symbiosis in heavy metal uptake and its implications for soil bioremediation, Dana Luminița Sobariu, Daniela Ionela Tudorache Fertu, Mariana Diaconu, Lucian Vasile Pavel, **Raluca-Maria Hlihor**, Elena Niculina Drăgoi, Silvia Curteanu, Markus Lenz, Philippe François-Xavier Corvini, Maria Gavrilăscu, *New Biotechnology*, 39, 125-134 (2017) (IF 3.733, Q1).
13. *Premierea rezultatelor cercetării: PN-II-RU-PRECISI2014-8-6112*, Humans in the environment. Comparative analysis and assessment of pesticide residues from field-grown tomatoes, Manuela Olga Pogăcean, **Raluca Maria Hlihor**, Cristina Preda, Maria Gavrilăscu, *European Journal of Science and Theology*, 9, 79-94 (2013).
14. *Premierea rezultatelor cercetării: PN-II-RU-PRECISI2015-9-8706*, Experimental analysis and mathematical prediction of Cd(II) removal by biosorption using support vector machines and genetic algorithms, **Raluca Maria Hlihor**, Mariana Diaconu, Florin Leon, Silvia Curteanu, Teresa Tavares, Maria Gavrilăscu, *New Biotechnology*, 32(3), 358-368 (2015) (IF 3.199, Q1).

În străinătate

14. *Premiu de excelență pentru cea mai bună lucrare*, Effects induced by heavy metals stress on seedlings development of lettuce, Dana-Mihaela Asimincesei, **Raluca Maria Hlihor**, Mihaela Roșca, Petronela Cozma, Maria Gavrilăscu, *Academics World International Conference- Rome, Italy 20th July 2019*.



## VII. Brevete, invenții, omologare de soiuri sau hibrizi, produse, etc.

1. Brevet de invenție - Nr. 133715 din 29.03.2024; Brevet de invenție cu titlu: PROCEDEU DE OBTINERE A UNOR MATERIALE DE TIP BIOCOMPOZIT DESTINATE REALIZĂRII ELEMENTELOR CONSTRUCTIVE ȘI FUNCȚIONALE ALE EUROPALEȚILOR, Autori: Gavrilescu Maria, Cretescu Igor, Malutan Teodor, Smaranda Camelia, Puitel Adrian Catalin, Cozma Petronela, Hlihor Raluca-Maria, Ghinea Cristina, Simion Isabela-Maria, Comanita Elena-Diana, Roșca Mihaela.

## VIII. Indicele Hirsch din WOS: 17

### IX. Recenzii în reviste cotate ISI

*În reviste cu FI < 1*

1. Optimization of lead and cadmium bioremediation by new strains of *Bacillus* sp., using response surface methodology, **SN Applied Sciences**, 2019

*În reviste cu FI ≥ 1*

1. Applications of pollutants removal based on algae, bacteria, and algal-bacterial consortium: A review, **Water**, 2022

2. Removal of antimony in wastewater by antimony-tolerant sulfate-reducing bacteria isolated from municipal sludge, **International Journal of Molecular Sciences**, 2022

3. Molecular Mechanisms Underlying Bacterial Uranium Resistance, *Frontiers in Microbiology*, 2021

4. Bioremediation: A promising tool for reclamation of contaminated sites with special emphasis on heavy metal and pesticide pollution: A review, **Processes**, 2021

5. Bioremediation of Polycyclic Aromatic Hydrocarbons from Industry Contaminated Soil Using Indigenous *Bacillus* spp, **Processes**, 2021

6. Remediation strategies for heavy metals contaminated ecosystem: A review, **Environmental and Sustainability Indicators**, 2021

7. Enhancing the biodegradation efficiency of a refractory emergent water pollutant by a bacterial isolate through a statistical process optimization approach: towards an environmental biotechnological application, **Process Safety and Environmental Protection**, 2021

8. Removal of Methylene Blue and Congo Red Using Adsorptive Membrane Impregnated with Dried *Ulva fasciata* and *Sargassum dentifolium*, **Plants**, 2021

9. Quantifying pesticide emission fractions for tropical conditions, **Chemosphere**, 2020

10. Sustainability assessment of nanoscale zero-valent iron production processes for contaminated site remediation through life cycle analysis tools, **Environmental Science and Pollution Research**, 2020

11. Rice-husk derived biochar for defluoridation of groundwater: Optimization, characterization and adsorption studies, **Journal of Hazardous Materials**, 2020

12. Environmental Technology Reviews, **Environmental Technology Reviews**, 2020

13. Biosorptive Removal of Manganese By *Gelidium Omanense* – Equilibrium and Kinetic Studies, **Desalination and Water Treatment**, 2019

14. Removal and direct visual monitoring of Lead(II) using amino acids functionalized polyacrylonitrile nanofibrous membranes, **Journal of Hazardous Materials**, 2019
15. **International Journal of Research in Environmental Studies**, 2017
16. Highly selective and efficient adsorption of Hg<sup>2+</sup> by a recyclable aminophosphonic acid functionalized polyacrylonitrile fiber, **Journal of Hazardous Materials**, 2017
17. Application of a novel phyco-composite biosorbent for the biotreatment of aqueous medium polluted with manganese ions, **International Journal of Phytoremediation**, 2017
18. Biosorption of Zn(II) from industrial effluents in a pilot fixed bed column, **Science of the Total Environment**, 2017
19. Effective removal of chromium(III) from low concentration aqueous solution using a novel diazene/methoxy-laced metal-organic framework, **Journal of Hazardous Materials**, 2016
20. KINETICS OF BIOSORPTION OF THREE HEAVY METALS BY SELECTED FIVE FREE MICRO-ORGANISMS, **Desalination and Water Treatment**, 2016
21. Highlighting inconsistencies regarding metal biosorption, **Journal of Hazardous Materials**, 2015

*Editor asociat/invitat la reviste ISI cu factor de impact în străinătate*

1. *Special Issue: Bioremediation: An Overview on Current Practices, Advances, and New Perspectives in Environmental Pollution Treatment*, Editors: **Raluca Maria Hlihor**, Maria Gavrilăscu, Teresa Tavares, Lidia Favier, Giuseppe Olivieri, BioMed Research International (2017)
2. *Special Issue: Microbial Bioremediation of Environmental Pollution*, Editors: **Raluca Maria Hlihor**, Petronela Cozma, Processes, (2021-2022)
3. *Special Issue: Microbial Bioremediation of Environmental Pollution (2nd Edition)*, Editors: Petronela Cozma, **Raluca Maria Hlihor**, Processes (2023-2024)
4. *Special Issue: Integrated Approaches to Eco-Friendly Processes for Persistent Pollutants Contamination*, Editors: **Raluca Maria Hlihor**, Isabela Maria Simion, Mihaela Roșca Processes (2023-2024)

### **C. Prestigiul profesional**

*Membru activ al unor societăți (asociații) științifice sau profesionale*

1. Societatea Română a Horticultorilor (SRH) (2019-prezent)
2. Asociația Amicii Rozelor din România (2019-prezent)
3. Asociația Profesională a Horticultorilor și Peisagistilor (2022-prezent)

**Data**

12.06.2024

**Semnătura**

Șef lucrări dr. Raluca Maria Hlihor