

LISTA DE LUCRĂRI

A. LUCRĂRI REPREZENTATIVE

1. **Damian G.**, Varvara S., Assessment of *Cyprinus carpio* Scales as a Low-Cost and Effective Biosorbent for the Removal of Heavy Metals from the Acidic Mine Drainage Generated at Rosia Montana Gold Mine (Romania), *Water*, 14, 3734 (2022). I.F. 3.4.
2. **Damian G.E.**, Micle V., Sur I. M., Mobilisation of Cu and Pb from multi-metal contaminated soils by dissolved humic substances extracted from Leonardite and factors affecting the process, *Journal of Soils and Sediments*, I.F. 2,627, 19(7), pp. 2869-2881, DOI: 10.1007/s11368-019-02291-w (2019).
3. **Damian G.E.**, Micle V., Sur I. M., Chirila Babau A. M., From environmental ethics to sustainable decision-making: assessment of potential ecological risk in soils around abandoned mining areas-case study “Larga de Sus mine” (Romania), *Journal of Agricultural and Environmental Ethics*, I.F. 1,24, 32 (1), pp. 27-49 (2019).
4. **Damian G.E.**, Micle V., Sur I. M., Lead and copper removal from multi-metal contaminated soils through soil washing technique using humic substances as washing agent: the influence of the washing solution pH, *Studia Universitatis Babeş-Bolyai, Seria Chemia*, IF= 0,305, LXIV, 1, pp. 41-52 (2019).
5. Micle V., **Damian G.E.**, Rogozan G.C., Sur I. M., Non-Linear Regression Model for Estimating the Efficiency of Heavy Metals Removal by Soil Washing with Chitosan Solution, *Appl. Sci.*, 13, 465 (2023). I.F. 2.7 in 2022.
6. Varvara S., **Damian G.**, Bostan R., Popa M., Inhibition effect of Tantum Rosa drug on the corrosion of copper in 3.5 wt.% NaCl solution, *Int. J. Electrochem. Sci.*, 17, 220958 (2022) I.F. 1.5.
7. Varvara S., Berghian-Grosan C., **Damian G.**, Popa M., Popa F., Combined Electrochemical, Raman Analysis and Machine Learning Assessments of the Inhibitive Properties of an 1,3,4-Oxadiazole-2-Thiol Derivative against Carbon Steel Corrosion in HCl Solution, *Materials*, 15(6), 2224 (2022), I.F. 3,623
8. Chirila Babau A. M., Micle V., **Damian G.E.**, Sur I. M. Lead and copper removal from sterile dumps by phytoremediation with *Robinia pseudoacacia*, *Scientific Reports*, 14, Article number: 9842 (2024), I.F. 3,8.

B. TEZA DE DOCTORAT

“Studii și cercetări privind depoluarea prin spălare a solurilor poluate cu metale grele”. IOSUD Universitatea Tehnică din Cluj Napoca. Conducător Științific: prof. univ. dr. ing. Micle Valer. Data susținerii publice: 16.09.2019. Confirmare în baza O.M.E.C. Nr. 5345 din 25 noiembrie 2019. Diploma de Doctor în Ingineria Mediului seria J Nr. 0033898.

C. BREVETE DE INVENȚIE

1. Brevet de invenție național nr. 133822/2021 cu titlul “Instalație și procedeu de depoluare prin spălare a solurilor poluate cu metale grele”. OSIM. Inventatori: Damian Gianina Elena și Micle Valer.

D. CĂRȚI ȘI CAPITOLE ÎN CĂRȚI

1. **Damian G.E.** Surse de radiații și tehnici de protecție – note de curs, seria Didactica, 2024.
2. Varvara S., Bostan R., Popa M., **Damian G.**, Epurarea apelor uzate – note de curs și lucrări practice de laborator, seria Didactica, 2024.

E. ARTICOLE/STUDII IN EXTENSO PUBLIFICATE IN REVISTE DIN FLUXUL STIINTIFIC INTERNATIONAL PRINCIPAL

E.1) Articole publicate în reviste de specialitate indexate ISI

E. 1.1) Articole/studii publicate în reviste științifice internaționale

1. Chirila Babau A. M., Micle V., **Damian G.E.**, Sur I. M. Lead and copper removal from sterile dumps by phytoremediation with *Robinia pseudoacacia*, *Scientific Reports*, 14, Article number: 9842 (2024), I.F. 3,8.
2. Micle V., **Damian G.E.**, Rogozan G.C., Sur I. M., Non-Linear Regression Model for Estimating the Efficiency of Heavy Metals Removal by Soil Washing with Chitosan Solution, *Appl. Sci.*, 13, 465 (2023). I.F. 2.7 in 2022.
3. **Damian G.**, Varvara S., Assessment of *Cyprinus carpio* Scales as a Low-Cost and Effective Biosorbent for the Removal of Heavy Metals from the Acidic Mine Drainage Generated at Rosia Montana Gold Mine (Romania), *Water*, 14, 3734 (2022). I.F. 3.4.

4. Varvara S., **Damian G.**, Bostan R., Popa M., Inhibition effect of Tantum Rosa drug on the corrosion of copper in 3.5 wt.% NaCl solution, *Int. J. Electrochem. Sci.*, 17, 220958 (2022) I.F. 1.5.
5. Varvara S., Berghian-Grosan C., **Damian G.**, Popa M., Popa F., Combined Electrochemical, Raman Analysis and Machine Learning Assessments of the Inhibitive Properties of an 1,3,4-Oxadiazole-2-Thiol Derivative against Carbon Steel Corrosion in HCl Solution, *Materials*, 15(6), 2224 (2022), I.F. 3,623*.
6. Chirila Băbău A.M., Micle V., **Damian G.E.**, Sur I. M., Sustainable Ecological Restoration of Sterile Dumps Using *Robinia pseudoacacia*, *Sustainability*, 13 (24), 140021 (2021), I.F. 3,251*.
7. **Damian G.E.**, Micle V., Sur I. M., Mobilisation of Cu and Pb from multi-metal contaminated soils by dissolved humic substances extracted from Leonardite and factors affecting the process, *Journal of Soils and Sediments*, 19(7), pp. 2869-2881, DOI: 10.1007/s11368-019-02291-w (2019), I.F. 2,627*.
8. **Damian G.E.**, Micle V., Sur I. M., Chirila Babau A. M., From environmental ethics to sustainable decision-making: assessment of potential ecological risk in soils around abandoned mining areas-case study “Larga de Sus mine” (Romania), *Journal of Agricultural and Environmental Ethics*, 32 (1), pp. 27-49 (2019), I.F. 1,24*.

E. 1.2) Articole publicate în reviste cotate ISI Thomson Reuters din țară

1. **Damian G.E.**, Micle V., Sur I. M., Lead and copper removal from multi-metal contaminated soils through soil washing technique using humic substances as washing agent: the influence of the washing solution pH, *Studia Universitatis Babeș-Bolyai, Seria Chimia*, IF= 0,305*, LXIV, 1, pp. 41-52 (2019).

*IF al revistei la momentul publicării articolului

E.2) Articole publicate în reviste de specialitate indexate BDI

1. **Damian G.E.**, Effective use of construction, renovation and demolition waste in the treatment of acid mine drainage, *Pangeea* 24.13 (2024).
2. **Damian G.E.**, Effective washing agent for the removal of lead and copper from multi-metal contaminated soils in mining areas, *Pangeea* 23.28 (2023).
3. **Damian G.E.**, Removal the heavy metal ions from acidic mine drainage generated at “Rosia Montana” gold mine (Romania) by using *Cyprinus carpio* scale as biosorbent, *Pangeea* 22.05 (2022).

4. **Damian G.E.**, Micle V., Sur I.M., Study regarding the Pedological properties of the soil in the “Larga de Sus” mining area in order to establish the appropriate soil remediation technology, *Pangeea* (2021).
5. **Damian G.E.**, New approaches regarding remediation techniques of heavy metal contaminated soils from mining areas, *Studia Ambientum*, 1/2018, pp. 15-31 (2018), indexare: ProQuest - Serials Solutions Ulrichsweb(TM) (2010), EBSCO – EBSCOhost Online Research Databases (2011).
6. **Damian G.E.**, Micle V., Sur I. M., Assessment of Heavy Metal Contamination in the Soils nearby “Larga de Sus” Mine (Romania), *ProEnvironment*, 12 (38), pp. 136-141 (2019).
7. Sur I. M., Zoltan R., Micle V., **Damian G.E.**, Investigations on the Quality of Soil and Air in the Somes Nord Industrial Area of the City of Cluj-Napoca, *ProEnvironment*, 12 (38), pp. 150-153 (2019).
8. **Damian G.E.**, Micle V., Sur I. M., Soluble potassium salts of humic acids as washing agent for lead and copper polluted soils. *Ecoterra*, 16(2), pp.5-10 (2019).

F. PUBLICAȚII IN EXTENSO APĂRUTE ÎN VOLUME ALE UNOR CONFERINȚE INTERNAȚIONALE DE SPECIALITATE

1. **Damian G.E.**, Micle V., Sur I.M., Preliminary investigations regarding the potential of humic substances to extract Nickel from contaminated soil, *International Conference Contaminated Sites Banska Bystrica, Slovak Republic, 8-10 Octombrie 2018 - Conference Proceedings*, pp. 141-142 (2018).
2. **Damian G. E.**, Micle V., Sur I. M., Lab scale experimental investigations regarding the efficacy of using humic substances in heavymetals removal by soil washing, *GLOREP 2108 Conference, Timisoara 15-17 November, 2018, Conference Proceeding*, ISBN 978-606-35-0238-5, pp.45-47 (2018).
3. Chirilă Băbău A.M., Micle V., **Damian G.E.**, Sur I.M., Studies concerning the phytoremediation of sites degraded by mining activities with *Robinia pseudoacacia*, *GLOREP 2108 Conference, Timisoara 15-17 November, 2018, Conference Proceeding*, ISBN 978-606-35-0238-5, pp.374-375 (2018).
4. Micle V., Pop D., Sur I. M., Rogozan G. C., **Damian G. E.**, Mathematical modelling of thermal desorption of the crude oil polluted soil, *GLOREP 2108 Conference, Timisoara 15-17 November, 2018, Conference Proceeding*, ISBN 978-606-35-0238-5, pp.176-178 (2018).
5. **Damian G.E.**, Micle V., Sur I. M., Removal of heavy metals from contaminated soil using chitosan as washing agent – a preliminary study, *Journal of Environmental Protection and Ecology*, 21 (3), pp. 823-829 (2020).

6. Varvara S., Dorneanu S.A., Okos A., Bostan R., Popa M., **Damian G.**, Ilea P., Dissolution of nickel in bromide-based solutions used as lixivants for waste printed circuit boards, *Journal of Environmental Protection and Ecology*, 21 (2), pp. 551-560 (2020).
7. Sur I.M., Micle V., **Damian G.E.**, Assessment of heavy metal contamination and bioremediation potential of thiobacillus ferrooxidans in soils around copper quarry, *Journal of Environmental Protection and Ecology*, 21 (1), pp.56–62 (2020).
8. Chirila-Babau A. M., Micle V., **Damian G.E.**, Sur I. M., Preliminary investigations regarding the potential of robinia pseudoacacia L. (leguminosae) in the phytoremediation of sterile dumps, *Journal of Environmental Protection and Ecology*, 21 (1), pp.46–55 (2020).
9. Popa D., Prodan D., Moldovan M., Saroși C., Cuc S., Popa M., Varvara S., Ivan R., Bostan R., **Damian G.**, Study on the Possibility of Obtaining Innovative Mortars Used in the Rehabilitation of Heritage Buildings, *Journal of Environmental Protection and Ecology*, 24 (1), 67–77 (2023).
10. **Damian G.E.**, Micle V., Sur I. M., Experimental investigations concerning the effectiveness of humic substances to extract heavy metals through soil washing, *Journal of Environmental Protection and Ecology*, 20(3), pp.1132-1139 (2019).
11. Micle V., Pop D., Sur I.M., Rogozan G.C., **Damian G.E.**, Non linear model for estimating the residual pollutant concentration after thermal desorption of the crude oil polluted soil, *Journal of Environmental Protection and Ecology*, 20(3), pp.1120-1131 (2019).
12. Babau M., Micle V., **Damian G. E.**, Varvara S., Health risk assessment analysis in two highly polluted mining areas from Zlatna (Romania), *Journal of Environmental Protection and Ecology*, 18 (4), pp. 1416–1424 (2017).
13. Varvara S., Popa M., Bostan R., **Damian G.**, Preliminary considerations on the adsorption of heavy metals from acidic mine drainage using natural zeolite, *Journal of Environmental Protection and Ecology*, 14(4), pp.1506-1514 (2013).

G. ALTE LUCRĂRI ȘI CONTRIBUTII ȘTIINȚIFICE

G.1) Lucrări științifice comunicate (prezentate) în cadrul unor manifestări științifice internaționale

1. **Gianina Damian**, Simona Varvara, Sorin Aurel Dorneanu, Alexandru Okos, Maria Popa, Roxana Bostan, Liana Muresan and Petru Ilea, XPS AND SEM-EDX INVESTIGATIONS OF THE DISSOLUTION PRODUCTS OF SEVERAL METALS IN AN ACIDIC BROMINE-CONTAINING LIXIVANT”, VII

International Congress "Engineering, Environment and Materials in Process Industry, organized by the University of East Sarajevo and Faculty of Technology Zvornik, Jahorina, Bosnia and Herzegovina, March 17th to March 19th, 2021.

2. **Gianina Damian**, Simona Varvara, Sorin Aurel Dorneanu, Maria Popa, Roxana Bostan, Liana Muresan, Petru Ilea, Electrochemical Behavior of Several Metals from Waste Printed Circuit Boards in Acidic Brominated Lixiviants, *The 71st Annual Meeting of the International Society of Electrochemistry: "Electrochemistry towards Excellence"*, BelgradeOnline, 30 August - 4 September 2020.
3. **Damian G.**, Micle V., Sur I.M., Removal of heavy metals from contaminated soil using chitosan as washing agent-a preliminary study, *International U.A.B. – B.E.N.A. Workshop, Environmental Engineering & Sustainable Development*, Alba Iulia, Romania, 20-21 iunie 2019 (Book of Abstracts: pp. 22, ISSN 2457-2829, AETERNITAS Publishing House, Alba Iulia 2019).
4. **Damian G.E.**, Micle V., Sur I. M., Assessment of heavy metal contamination in the soils nearby "Larga de Sus" mine (Romania), *9th International Symposium "Soil Minimum Tillage Systems"*, Cluj Napoca, Romania, 8-9 mai 2019.
5. Sur I. M., Zoltan R., Micle V., **Damian G.E.**, Investigations on the Quality of Soil and Air in the Somes Nord Industrial Area of the City of Cluj-Napoca, *9th International Symposium "Soil Minimum Tillage Systems"*, Cluj Napoca, Romania, 8-9 mai 2019.
6. Sur I. M., Micle V., **Damian G.E.**, Assessment of heavy metal contamination and bioremediation potential of thiobacillus ferrooxidans in soils around a copper quarry, *International U.A.B. – B.E.N.A Workshop, Environmental Engineering and Sustainable Development*, Alba Iulia, Romania, 20-21 iunie 2019 (Book of Abstracts: pp. 44, ISSN 2457-2829, AETERNITAS Publishing House, Alba Iulia 2019).
7. Chirilă Băbău A.M., Micle V., **Damian G.E.**, Sur I.M., Study on the bioaccumulation and translocation factors of lead and copper in *Pseudoacacia L. (Leguminosae)*, *International U.A.B. – B.E.N.A Workshop, Environmental Engineering and Sustainable Development*, Alba Iulia, Romania, 20-21 iunie 2019 (Book of Abstracts: pp. 20, ISSN 2457-2829, AETERNITAS Publishing House, Alba Iulia 2019).
8. Varvara S., Dorneanu S.A., Okos A., Bostan R., Popa M., **Damian G.**, Ilea P., Dissolution of nickel in bromide-based solutions used as lixiviants for waste printed circuit boards, *International U.A.B. – B.E.N.A Workshop, Environmental Engineering and Sustainable Development*, Alba Iulia, Romania, 20-21 iunie 2019 (Book of Abstracts: pp. 80, ISSN 2457-2829, AETERNITAS Publishing House, Alba Iulia 2019).

9. **Damian G.E.**, Micle V., Sur I. M., Chirila Babau A. M., From environmental ethics to sustainable decision-making: assessment of potential ecological risk in soils around abandoned mining areas-case study “Larga de Sus mine” (Romania), *Book of Abstracts-12th International Conference Environmental Legislation, Safety Engineering and Disaster Management ELSESEDIMA 2018*, Universitatea Babeș-Bolyai, Facultatea de Știința și Ingineria Mediului 17-19 mai 2018, Cluj Napoca.
10. Chiril Babau A.M. Micle V., Sur I.M., **Damian G.E.**, Ethical issues in ecological restoration of sterile dumps and potential of plant species for phytoremediation: seed germination of *Robinia pseudoacacia* in various amendments with heavy metals, *Book of Abstracts-12th International Conference Environmental Legislation, Safety Engineering and Disaster Management ELSESEDIMA 2018*, Universitatea Babeș-Bolyai, Facultatea de Știința și Ingineria Mediului 17-19 mai 2018, Cluj Napoca.
11. Băbău A. M., Micle V., **Damian G. E.**, Varvara S., Health risk assessment analysis applied in order to choose optimum remediation method of highly polluted mining areas (Poster), *International U.A.B. – B.E.N.A. Conference, Environmental Engineering & Sustainable Development*, Alba Iulia, Romania, 25-27 mai 2017 (Book of Abstracts: pp. 29, ISSN 2457-2829, AETERNITAS Publishing House, Alba Iulia 2017).
12. Varvara S., Popa M., Bostan R., **Damian G.**, Preliminary considerations on the adsorption of heavy metals from acidic mine drainage using natural zeolite, *Book of Abstracts-UAB-B.E.N.A. International Conference 2013*, Universitatea „1 Decembrie 1918” Alba Iulia, (2013).

G.2) Lucrări științifice comunicate (prezentate) în cadrul unor manifestări științifice naționale

1. **Damian G.E, Bostan R., Popa M., Varvara S.**, Exploring the potential of fish scales for acid mine drainage treatment, Simpozionul ENVIRONMENT & PROGRESS, 13-15 iunie 2024, Cluj-Napoca.
2. **Damian G.E**, Bostan R., Popa M., Varvara S., Recycling unused Tantum Rosa drug as corrosion inhibitor of copper in 3.5 wt.% NaCl solution, Simpozionul ENVIRONMENT & PROGRESS tema Dezvoltarea durabilă: abordări și soluții pentru comunități reziliente, 18.05.2023, Cluj-Napoca.
3. **Damian G.E**, Dorneanu S. A., Varvara S., Popa M., Bostan R., Ilea P., Effect of pH on the electrochemical behavior of Zn, Fe and Ni in brominated leaching systems, *Simpozionul național cu participare internațională Environment & Progress, ediția a XII-a*, 15 Noiembrie 2019, Cluj-Napoca.
4. **Damian G.E.**, New approaches regarding remediation techniques of heavy metal contaminated soils from mining areas, *Simpozionul National cu Participare*

Internatională Environment & Progress 2017, Universitatea Babeș-Bolyai, Facultatea de Știința și Ingineria Mediului, 10 noiembrie 2017, Cluj Napoca.

5. **Damian G.**, Varvara S., Bostan R., Preliminary investigation on the use of different natural sorbents for removal of heavy metals from acid mine drainage. Case study: „Larga de Sus” mine, *Simpozion Național Studentesc „IF-IM-CAD” 2013, București, Jurnal of Young Scientist*, 1, pp. 95-104 (2013).
6. **Damian G.**, Impactul exploatării miniere „Larga de Sus”, perimetrul minier Zlatna, județul Alba asupra mediului înconjurător, *Sesiunea Națională de Comunicări Științifice a Studenților IN-EXTENSO 2013*, Alba Iulia, *Buletinul Științific al Universității „1 Decembrie 1918” Alba Iulia* (2013).
7. **Damian G.**, Botezan A., David D., Studiu privind solicitările produse din vibrații în poduri. Vibrațiile- surse de energie alternativă, *Sesiunea Națională de Comunicări Științifice a Studenților IN-EXTENSO 2011*, Alba Iulia, *Buletinul Științific al Universității „1 Decembrie 1918” Alba Iulia* (2011).
8. **Damian G.**, David D., Studiu privind factorii de influență ai contaminării solurilor din Zlatna, *Sesiunea Națională de Comunicări Științifice a Studenților IN-EXTENSO 2010*, Alba Iulia, *Buletinul Științific al Universității „1 Decembrie 1918” Alba Iulia* (2010).

G.3) Alte lucrări și contribuții științifice

1. Bostan R., **Damian G.**, Pitea G., Popa M., Varvara S., *The use of Aesculus hippocastanum L. extract as green corrosion inhibitor of carbon steel in hydrochloric acid – articol in-extenso – MEDIUL CA RISC SI URGENTA*, Ed. Valea Verde 2021, ISBN 978-606-8834-42-9, pp. 107-119.