LISTA DE LUCRĂRI

Lista celor mai relevante 10 lucrări ştiinţifice publicate în domeniul tezei de abilitare

1. **Cosmin Vancea**, Giannin Mosoarca, Adina Negrea, Adina Latia, Romul Marius Jurca, New glass-ceramic matrix for the chromium wastes immobilization, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2016**, 46(3), 296-302. https://solacolu.chim.upb.ro/p296-302.pdf
IF = 0.628, Q4, WOS:000383730900006

2. **Cosmin Vancea**, Marius Gheju, Giannin Mosoarca, Inertization in vitreous matrix of exhausted reactive mixtures resulted from the removal of Cr(VI) with Fe0 in continuous-flow system, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2017**, 47(4), 435-441. https://solacolu.chim.upb.ro/p435-441.pdf
IF = 0.628, Q4, WOS:000418507100003

3. **Cosmin Vancea**, Romul Marius Jurca, Marius Gheju, Giannin Mosoarca, Eco-friendly solution for wastes resulted from the removal of Cr(VI) with Fe0 immobilization in glass based stoneware matrix, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2018**, 48(3), 308-314. https://solacolu.chim.upb.ro/p308-314.pdf
IF = 0.628, Q4, WOS:000452733000004

4. Vasile Mînzatu, Corneliu Mircea Davidescu, Adina Negrea, Petru Negrea, Mihaela Ciopec, **Cosmin Vancea**, Cellular glass as inertization alternative for the exhausted composite adsorption material resulted from the removal of arsenic from waste waters, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2019**, 49(2), 193-200. https://solacolu.chim.upb.ro/p193-200.pdf
IF = 0.628, Q4, WOS:000474908300004

5. Bogdan A. Militaru, **Cosmin Vancea**, Rodica Pode, Glass Fertilizers Obtained Using Sewage Sludge ASH Wastes, *Revista de Chimie*, 2019, 70(11), 3824-3829. https://doi.org/10.37358/RC.70.19.11.7653
IF = 0, Q3, WOS:000503185300011

6. **Cosmin Vancea**, Giannin Mosoarca, Simona Popa, A sustainable solution to obtain P-K-Mn glass fertilizers from cheap and readily available wastes, International Journal of Environmental Research and Public Health, 2021, 18(12), 6585. https://doi.org/10.3390/ijerph18126585
IF = 0, Q1 (la momentul publicării), WOS:000666192100001

7. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Vitrification of Iron Oxide Rich Sludge Resulted from the Groundwater Treatment as New Glass Ceramic Materials, *The Annals of "Dunarea de Jos" University of Galati, Fascicle IX. Metallurgy and materials science*, **2022**, 45(3), 11-15. https://doi.org/10.35219/mms.2022.3.02

8. **Cosmin Vancea**, Giannin Mosoarca, Romul Marius Jurca, Cathode ray tubes glass wastes used for vitrification of iron oxide rich waste resulted from the groundwater treatment, *Ovidius University Annals of Chemistry*, **2022**, 33(2), 172 – 176. https://doi.org/10.2478/auoc-2022-0025
IF = 0.0, Q4, WOS:000883793100002

9. **Cosmin Vancea**, Giannin Mosoarca, Recycled Bottle Glass Wastes as Precursors for Porous Alumina Glass Ceramics Synthesis, *Waste*, **2023**, 1, 115-126. https://doi.org/10.3390/waste1010009

10. **Cosmin Vancea**, Giannin Mosoarca, Simona Popa, Mircea Dan, Sorina Boran, New Glass Ceramic Materials Obtained from Cathode Ray Tubes Glass Wastes and Fly Ash, *Sustainability*, *2023*, 15, 3021. https://doi.org/10.3390/su15043021
IF = 3.889, Q2, WOS:000940059000001

Teza de doctorat

Cosmin Vancea, „Noi soluții de imobilizare a unor deșeuri industriale în matrici vitroase”, Universitatea Politehnica Timișoara, 2014.
Domeniul de doctorat – *Ingineria Materialelor*, Teza de doctorat confirmată prin OMEdC 165/2014.

Brevete de invenţie

1. Gheju Marius, Balcu Ionel, Mosoarca Giannin, **Vancea Cosmin**, Compozitie sinergica reactiva pentru tratarea apelor poluate cu crom hexavalent, Brevet de inventie, nr. 132867, 30.08.2021.

Cărţi publicate în ţară

1. Adina Latia, **Cosmin Vancea**, Sticle speciale, Editura Politehnica Timişoara, 2012, ISBN: 978-606-554-501-4, 197 pagini.

2. **Vancea Cosmin**, Noi soluții de imobilizare a unor deșeuri industriale în matrici vitroase, Editura Politehnica Timişoara, 2013, ISBN: 978-606-554-735-3, 239 pagini.

3. Adina Latia, **Cosmin Vancea**, Îndrumător de laborator: Tehnologia sticlei, Editura Politehnica Timişoara, 2001, 71 pagini.

Articole in extenso, publicate în reviste cotate ISI cu factor de impact – quartila Q1 (zona roşie)

1. Ioan Lazau, Silvana Borcanescu, Cornelia Pacurariu, **Cosmin Vancea**, Kinetic study of the non-isothermal crystallization process of hematite in ceramic glazes obtained from CRT wastes, *Journal of Thermal Analysis and Calorimetry*, **2013**, 112(1), 345-351. https://doi.org/10.1007/s10973-012-2736-1
IF = 4.755, Q1, WOS:000316687400048

2. Marius Gheju, Ionel Balcu, **Cosmin Vancea**, An investigation of Cr(VI) removal with metallic iron in the co presence of sand and/or MnO_2, Journal 0f Environmental Management, 2016, 170, 145-151. https://doi.org/10.1016/j.jenvman.2016.01.013
IF = 8.91, Q1, WOS: 000371367300018

3. Simona Popa, Marius Silviu Milea, Sorina Boran, Sabina Violeta Nitu, Giannin Emanuel Mosoarca, **Cosmin Vancea**, Radu Ioan Lazau, Rapid adulteration detection of cold pressed oils with their refined versions by UV–Vis spectroscopy, *Scientific Reports*, **2020**, 10, 16100. https://doi.org/10.1038/s41598-020-72558-7
IF = 4.996, Q1 (la momentul publicării), WOS:000577212800012

4. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Marius Gheju, Sorina Boran, *Syringa vulgaris* leaves powder a novel low-cost adsorbent for methylene blue removal: isotherms, kinetics, thermodynamic and optimization by Taguchi method, *Scientific Reports*, **2020**, 10(1), 17676. https://doi.org/10.1038/s41598-020-74819-x
IF = 4.996, Q1 (la momentul publicării), WOS:000585197800006

5. **Cosmin Vancea**, Maria Mihailescu, Adina Negrea, Giannin Mosoarca, Mihaela Ciopec, Narcis Duteanu, Petru Negrea, Vasile Minzatu, Batch and fixed bed column studies on palladium recovery from acidic solution by modified $MgSiO_3$, *International Journal of Environmental Research and Public Health*, **2020**, 17(24), 9500. https://doi.org/10.3390/ijerph17249500
IF = 4.614, Q1, WOS:000602790200001

6. **Cosmin Vancea**, Giannin Mosoarca, Simona Popa, A sustainable solution to obtain P-K-Mn glass fertilizers from cheap and readily available wastes, *International Journal of Environmental Research and Public Health*, **2021**, 18(12), 6585. https://doi.org/10.3390/ijerph18126585
IF = 0, Q1 (la momentul publicării), WOS:000666192100001

7. Mihaela Ciopec, Oana Grad, Adina Negrea, Narcis Duteanu, Petru Negrea, Cristina Paul, Catalin Ianasi, Giannin Mosoarca, **Cosmin Vancea**, A new perspective on adsorbent materials based impregnated $MgSiO_3$ with crown ethers for palladium recovery, *International Journal of Molecular Sciences*, **2021**, 22(19), 10718. https://doi.org/10.3390/ijms221910718
IF = 6.208, Q1, WOS:000709273600001

8. Giannin Mosoarca, Simona Popa, **Cosmin Vancea**, Sorina Boran, Optimization, Equilibrium and Kinetic Modeling of Methylene Blue Removal from Aqueous Solutions Using Dry Bean Pods Husks Powder, *Materials*, **2021**, 14(19), 5673. https://doi.org/10.3390/ma14195673
IF = 3.748, Q1, WOS:000707999100001

9. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Bathurst burr (*Xanthium spinosum*) powder a new natural effective adsorbent for crystal violet dye removal from synthetic wastewaters, *Materials*, **2021**, 14(19), 5861. https://doi.org/10.3390/ma14195861
IF = 3.748, Q1, WOS:000706496900001

10. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Mircea Dan, Sorina Boran, The Use of Bilberry Leaves (*Vaccinium myrtillus* L.) as an Efficient Adsorbent for Cationic Dye Removal from Aqueous Solutions, *Polymers*, **2022**, 14(5), 978. https://doi.org/10.3390/polym14050978
IF = 4.967, Q1, WOS:000768735700001

11. Giannin Mosoarca, Simona Popa, **Cosmin Vancea**, Mircea Dan, Sorina Boran, Removal of methylene blue from aqueous solutions using a new natural lignocellulosic adsorbent - raspberry (*Rubus idaeus*) leaves powder, *Polymers*, **2022**, 14(10), 1966. https://doi.org/10.3390/polym14101966
IF = 4.967, Q1, WOS:000803656800001

12. Alin Gabriel Gabor, Virgil-Florin Duma, Mihai M.C. Fabricky, Liviu Marsavina, Anca Tudor, **Cosmin Vancea**, Petru Negrea, Cosmin Sinescu, Ceramic Scaffolds for Bone Augmentation: Design and Characterization with SEM and Confocal Microscopy, *Materials*, **2022**, 15(14), 4899. https://doi.org/10.3390/ma15144899
IF = 3.748, Q1, WOS:000833110700001

13. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Mircea Dan, Sorina Boran, Crystal violet adsorption on eco-friendly lignocellulosic material obtained from motherwort (*Leonurus cardiaca* L.) biomass, *Polymers*, **2022**, 14, 3825. https://doi.org/10.3390/polym14183825
IF = 4.967, Q1, WOS:000856988400001

Articole in extenso, publicate în reviste cotate ISI cu factor de impact – quartila Q2 (zona galbenă)

1. Mosoarca Giannin, **Vancea Cosmin**, Popa Simona, Boran Sorina, Tanasie Cristian, A green approach for treatment of wastewater with manganese using wood ash, *Journal of Chemical Technology and Biotechnology*, **2020**, 95(6), 1781-1789. https://doi.org/10.1002/jctb.6376
IF = 3.709, Q2, WOS:000530688600018

2. Maria Mihailescu, Adina Negrea, Mihaela Ciopec, Petru Negrea, Narcis Duteanu, Ion Grozav, Paula Svera, **Cosmin Vancea**, Alina Barbulescu, Cristian Stefan Dumitriu, Full Factorial Design for Gold Recovery from Industrial Solutions, 2021, 9(5), 111, https://doi.org/10.3390/toxics9050111
IF = 4.472, Q2, WOS:000654623700001

3. **Cosmin Vancea**, Giannin Mosoarca, Simona Popa, Mircea Dan, Sorina Boran, New Glass Ceramic Materials Obtained from Cathode Ray Tubes Glass Wastes and Fly Ash, *Sustainability*, *2023*, 15, 3021. https://doi.org/10.3390/su15043021
IF = 3.889, Q2, WOS:000940059000001

Articole in extenso, publicate în reviste cotate ISI cu factor de impact – quartilele Q3 și Q4 (zona gri)

1. Vasiliu C., **Vancea C.**, Latia A., Anastasescu M., Todan L., Predoana L., Zaharescu M., Pavelescu G., Grigorescu C., Influence of different phosphorus precursors on the electrical properties of the SiO2-P2O5 films obtained by sol-gel, *Physica Status Solidi C - Current, Topics in Solid State Physics*, **2008**, 5(10), 3392. https://doi.org/10.1002/pssc.200778935
IF = 0, Q3, WOS:000259260500035

2. **Cosmin Vancea**, Mosoarca Giannin, Adina Negrea, Marilena Motoc, Dana Kaycsa, Corina Samoila, Molybdenum-phosphate Glass with High MoO_3 Content, *Revista de Chimie*, **2010**, 61(9), 848-852. https://bch.ro/pdfRC/VANCEA%20C.pdf%209%2010.pdf
IF = 0, Q3, WOS:000284137400009

3. Mosoarca Giannin, Negrea Petru, **Vancea Cosmin**, Motoc Marilena, Anghel Mariana, David Dana, Studies Regarding the Effect of Fly Ash used on Coagulation-settling Process of Water Suspensions, *Revista de Chimie*, **2010**, 61(10), 983-985. https://bch.ro/pdfRC/MOSOARCA%20GIA.pdf%2010%2010.pdf
IF = 0, Q3, WOS:000284244800016

4. Lazau Ioan, **Vancea Cosmin**, Foam glass as an alternative for glass wastes recycling, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2012**, 42(3), 270-275. https://solacolu.chim.upb.ro/pag270-275web.pdf
IF = 0.628, Q4, WOS:000309295900007

5. Lazau Ioan, **Vancea Cosmin**, Mosoarca Giannin, New vitreous matrix for the lead wastes immobilization, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2013**, 43(2), 210-217. https://solacolu.chim.upb.ro/p210-217web.pdf
IF = 0.628, Q4, WOS:000320638300011

6. Ioan Lazău and **Cosmin Vancea**, New vitreous matrix for chromium waste immobilization, *Central European Journal of Chemistry*, **2014**, 12(7), 763-768. https://doi.org/10.2478/s11532-014-0509-3
IF = 0, Q3, WOS:000335552200004

7. Ioan Lazău and **Cosmin Vancea**, Glass foam from window panes and bottle glass wastes, *Central European Journal of Chemistry*, **2014**, 12(7), 804-811. https://doi.org/10.2478/s11532-014-0510-x
IF = 0, Q3, WOS: 000335552200010

8. **Cosmin Vancea**, Giannin Mosoarca, Adina Negrea, Adina Latia, Romul Marius Jurca, New glass-ceramic matrix for the chromium wastes immobilization, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2016**, 46(3), 296-302. https://solacolu.chim.upb.ro/p296-302.pdf
IF = 0.628, Q4, WOS:000383730900006

9. **Cosmin Vancea**, Marius Gheju, Giannin Mosoarca, Inertization in vitreous matrix of exhausted reactive mixtures resulted from the removal of Cr(VI) with Fe0 in continuous-flow system, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2017**, 47(4), 435-441. https://solacolu.chim.upb.ro/p435-441.pdf
IF = 0.628, Q4, WOS:000418507100003

10. **Cosmin Vancea**, Romul Marius Jurca, Marius Gheju, Giannin Mosoarca, Eco-friendly solution for wastes resulted from the removal of Cr(VI) with Fe0 immobilization in glass based stoneware matrix, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2018**, 48(3), 308-314. https://solacolu.chim.upb.ro/p308-314.pdf
IF = 0.628, Q4, WOS:000452733000004

11. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Adsorption, Bioaccumulation and Kinetics Parameters of the Phytoremediation of Cobalt from Wastewater Using *Elodea canadensis*, *Bulletin of Environmental Contamination and Toxicology*, **2018**, 100(5), 733-739. https://doi.org/10.1007/s00128-018-2327-3
IF = 2.807, Q3, WOS:000430187200023

12. Vasile Mînzatu, Corneliu Mircea Davidescu, Adina Negrea, Petru Negrea, Mihaela Ciopec, **Cosmin Vancea**, Cellular glass as inertization alternative for the exhausted composite adsorption material resulted from the removal of arsenic from waste waters, *Revista Romana de Materiale/ Romanian Journal of Materials*, **2019**, 49(2), 193-200. https://solacolu.chim.upb.ro/p193-200.pdf
IF = 0.628, Q4, WOS:000474908300004

13. Simona Popa, Sorina Boran, Giannin Mosoarca, **Cosmin Vancea**, Heat transfer influence on fractionation in flooded packed columns, *Studia Universitatis Babes-Bolyai Chemia*, **2019**, 64(3), 143-152.
https://doi.org/10.24193/subbchem.2019.3.12
IF = 0.558, Q4, WOS:000489744800013

14. Bogdan A. Militaru, **Cosmin Vancea**, Rodica Pode, Glass Fertilizers Obtained Using Sewage Sludge ASH Wastes, *Revista de Chimie*, 2019, 70(11), 3824-3829. https://doi.org/10.37358/RC.70.19.11.7653
IF = 0, Q3, WOS:000503185300011

15. Sorina Boran, Giannin Mosoarca, Sabina Nitu, **Cosmin Vancea**, Citrus butanol esters having plasticizing and lubricant characteristics obtained in a bubble column type reactor, *Studia Universitatis Babes-Bolyai Chemia*, **2021**, 66(1), 105-113. https://doi.org/10.24193/subbchem.2021.1.08
IF = 0.558, Q4, WOS:000637282000009

16. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Optimization of crystal violet adsorption on common lilac tree leaf powder as natural adsorbent material, *Global NEST Journal*, **2022**, 24(1), 87-96. https://doi.org/10.30955/gnj.003951
IF = 3.748, Q4, WOS:000797022700011

17. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Maria Elena Radulescu-Grad, Crystal violet removal from aqueous solutions using dry bean pods husks powder – optimization and desorption studies, *Ovidius University Annals of Chemistry*, **2022**, 33(2), 129 – 134. https://doi.org/10.2478/auoc-2022-0019
IF = 0.0, Q4, WOS:000843699700001

18. **Cosmin Vancea**, Giannin Mosoarca, Romul Marius Jurca, Cathode ray tubes glass wastes used for vitrification of iron oxide rich waste resulted from the groundwater treatment, *Ovidius University Annals of Chemistry*, **2022**, 33(2), 172 – 176. https://doi.org/10.2478/auoc-2022-0025
IF = 0.0, Q4, WOS:000883793100002

19. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Maria Elena Radulescu Grad, Sorina Boran, Powdered adsorbent obtained from bathurst burr biomass for methylene blue removal from aqueous solutions, *Journal of the Serbian Chemical Society*, **2023**, 88(3) 327–341. https://doi.org/10.2298/JSC220316039M
IF = 1.100, Q4, WOS:000843699700001

Articole in extenso, publicate în reviste şi volumele unor manifestări ştiinţifice indexate BDI

1. **C. Vancea**, A. Latia, G. Mosoarca, Graphite as Conduction Modifier for Copper Superionic Glasses, *Chem. Bull. "Politehnica" Univ. (Timisoara)*, **2010**, 55(69), 193-196.

2. G. Mosoarca, L. Chisalita, F. David, A. Negrea, **C. Vancea**, Studies Regarding the Soil Level Pollution with Metals in Limitrophe Zone of Tg.-Jiu Industrial Area, *Chem. Bull. "Politehnica" Univ. (Timisoara)*, **2010**, 55(69), 197-200.

3. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Maria Elena Radulescu-Grad, Equilibrium Study Regarding Crystal Violet Dye Adsorption On Raspberry Leaves Powder, *The Annals of "Dunarea de Jos" University of Galati, Fascicle IX. Metallurgy and materials science*, **2022**, 45(2), 38-44. https://doi.org/10.35219/mms.2022.2.07

4. Giannin Mosoarca, **Cosmin Vancea**, Simona Popa, Sorina Boran, Vitrification of Iron Oxide Rich Sludge Resulted from the Groundwater Treatment as New Glass Ceramic Materials, *The Annals of "Dunarea de Jos" University of Galati, Fascicle IX. Metallurgy and materials science*, **2022**, 45(3), 11-15. https://doi.org/10.35219/mms.2022.3.02

5. **Cosmin Vancea**, Giannin Mosoarca, Recycled Bottle Glass Wastes as Precursors for Porous Alumina Glass Ceramics Synthesis, *Waste*, **2023**, 1, 115-126. https://doi.org/10.3390/waste1010009

Articole in extenso, publicate în volumele unor manifestări ştiinţifice internaţionale desfăşurate în România

1. Giannin Mosoarca, **Cosmin Vancea**, Studies Regarding the Posibbilities of Iron Sulphate Recovery from Drinking Water Treatment Plant Sludge and Its Reuse as Coagulant, *Proceedings of The Fourth Edition of the Symposium with International Participation"New trends and strategies in the chemistry of advanced materials"*, November 4-5, **2010**, Timisoara, p. 64, ISSN 2065-0760.

2. **Cosmin Vancea**, Giannin Mosoarca, Preparation and Characterisation of Foam Glass Obtained from Glass Wastes, *Proceedings of The Fourth Edition of the Symposium with International Participation"New trends and strategies in the chemistry of advanced materials"*, November 4-5, **2010**, Timisoara, p. 124, ISSN 2065-0760.

Contracte de cercetare-dezvoltare-inovare obtinute prin competitie la nivel national

1. CEEX nr. D11-38/2005, Materiale structurate avansate pentru microsisteme optoelectronice (membru)

2. PNII-RU-TE-2014-4-0508, nr. 129/2015, Tehnologii sinergice verzi de tratare a apelor poluate cu crom hexavalent (membru)

3. PN III nr. 30PCCDI/2018, Clădiri inteligente adaptabile la efectele schimbărilor climatice (responsabil de proiect, component 2, din partea UPT, anii 2020 și 2021)

4. BC97/CS11/2022 Validare linie sputtering-coating pentru oglinzi asferice Headup Display (membru)

Semnătură candidat