

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: **Inginerie Chimică și Biotehnologii**

Departamentul: **Chimie Analitică și Ingineria Mediului**

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Gradul didactic: **Profesor**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Strategii neconvenționale de obținere a sulfurilor metalelor tranziționale - **Simonescu C.M.**, conducător științific: Acad. Prof. Dr. Doc. Maria Brezeanu, CP1 Dr. Luminița Patron;

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. **Simonescu C. M.**, Introductory Chapter: Dendrimers as Nanoengineered Materials and Their Applications în cartea „Dendrimers - Fundamentals and Applications” 2018, Editura IntechOpen, editor Claudia Maria Simonescu, pag. 1-4, ISBN: 978-1-78923-059-8; disponibil <http://mts.intechopen.com/articles/show/title/introductory-chapter-dendrimers-as-nanoengineered-materials-and-their-applications>;

2. Simonescu C. M., Culiță D. C., Țârdei C., Sava B. A., Onose C., Metode și materiale pentru depoluarea apelor contaminate cu ioni ai metalelor grele, Editura MatrixRom București, 2017, ISBN 978-606-25-0341-3; 477 pagini

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. **Simonescu, C.-M.**; Dumitru, F.; Zărnescu, B.; Culiță, D.C.; Răzvan, A.; Oprea, O.; Truscă, R.; Vasile, E., Competitive Adsorption of Aqueous Cd(II) and Pb(II) Solutions onto Silicas Synthesized with Saponin as Template Agent. J. Compos. Sci. 2024, 8, 227. <https://doi.org/10.3390/jcs8060227> WOS:001256458400001
2. **Simonescu, C.M.**, Chipurici, P., Călinescu, I., Vinătoru, M., Toma, E.N., Culiță, D.C., Ene, V.L., Mason, T.J., Effects of ultrasounds and microwaves on the morphology and adsorption capacity of calcium alginate, Colloids and Surfaces A: Physicochemical and Engineering Aspects 682 (2024), Article Number 132906 WOS:001137513900001;
3. Vereș, P-A., **Simonescu C.M.**, Ciocîrlan, O., Deleanu, C., Effect of the packaging type on the quality parameters of sea buckthorn syrup, U.P.B. Sci. Bull., Series B, Vol. 85, Iss. 3, 2023, 53-64 (autor de corespondență), WOS:001052966300005;
4. Toma, E., **Simonescu, C.M.**, Chipurici, P., Călinescu, I., Deleanu, C., Cadmium and Lead Competitive Adsorption onto Calcium Alginate Prepared by Traditional and Green Methods, U.P.B. Sci. Bull., Series B, Vol. 85, Iss. 2, 2023, 21-34 (autor de corespondență) WOS:001015437100002;
5. Cimbru, A.M., Rikabi, A.A.K., Oprea, O., Grosu, A.R., Tanczos, S.-K., **Simonescu, C.M.**, Pașcu, D., Grosu, V.-A., Dumitru, F., Nechifor, G., pH and pCl Operational Parameters in Some Metallic Ions Separation with Composite Chitosan/Sulfonated Polyether Ether Ketone/Polypropylene Hollow

- Fibers Membranes, Membranes 2022, 12, 833. <https://doi.org/10.3390/membranes12090833> WOS:000857021200001;
6. **Simonescu, C.M.**, Culita, D.C., Tatarus, A., Mocanu, T., Marinescu, G., Mitran, R.A., Atkinson, I., Kuncser, A., Stanica, N., Novel Magnetic Nanocomposites Based on Carboxyl-Functionalized SBA-15 Silica for Effective Dye Adsorption from Aqueous Solutions, *Nanomaterials* 2022, 12(13), Article Number 2247, DOI10.3390/nano12132247. <https://doi.org/10.3390/nano12132247> WOS:000824094900001;
 7. **Simonescu, C.M.**, Tătăruș, A., Culiță, D.C. Stănică, N., Butoi, B., Kuncser, A., Facile Synthesis of Cobalt Ferrite (CoFe₂O₄) Nanoparticles in the Presence of Sodium Bis (2-ethyl-hexyl) Sulfosuccinate and Their Application in Dyes Removal from Single and Binary Aqueous Solutions, *Nanomaterials* 11(11) 2021, 3128; <https://doi.org/10.3390/nano11113128> WOS:000723802900001;
 8. Tătăruș, A., **Simonescu, C.M.**, Nechifor, G., Scutariu, R., Iancu, V.I., Chiriac, L.F., Development of a new high-performance liquid chromatography method with diode array detector (HPLC-DAD) for the detection of Congo Red and Methyl Orange dyes from synthetic water solutions, *U.P.B. Sci. Bull., Series B*, Vol. 83, Iss. 4, 2021, 85-94 WOS: 000731356100008 (autor de corespondență);
 9. **Simonescu, C.M.**, Tătăruș, A., Culiță, D.C. Stănică, N.; Ionescu, I.A., Butoi, B.; Banici, A.-M., Comparative Study of CoFe₂O₄ Nanoparticles and CoFe₂O₄-Chitosan Composite for Congo Red and Methyl Orange Removal by Adsorption. *Nanomaterials* 2021, 11, 711. <https://doi.org/10.3390/nano11030711> WOS: 000633970600001;
 10. **Simonescu, C.M.**, Mason, T.M., Călinescu, I., Lavric, V., Vîntor, M., Melinescu, A., Culiță, D.C., Ultrasound assisted preparation of calcium alginate beads to improve absorption of Pb⁺² from water, *Ultrasonics - Sonochemistry* 68 (2020) 105191 WOS:000554511700013;
 11. **Simonescu, C.M.**, Lavric, V., Musina, A., Antonescu, O.M., Culita, D.C., Marinescu, V., Tardei, C., Oprea, O., Pandele, M.A., Experimental and modeling of cadmium ions removal by chelating resins, *Journal of Molecular Liquids* Volume 307, 1 June 2020, Article number 112973 WOS:000536900800019;
 12. **Simonescu, C.M.**, Melinescu, A., Culita, D.C., Hasan, D., Zarnescu, B., Ciuca, M., Evaluation of zeolitic materials synthesized from coal fly ash as potential Cd(II) adsorbents from aqueous solutions, *Revista de Chimie* 71(9) (2020) 125-142, <https://doi.org/10.37358/RC.20.9.8323>;
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 15. **Simonescu, C.M.**, Tanase, I.-R., Purcaru, I.N., Tardei, C., Marinescu, V., Fixed-bed column adsorption studies using synthetic hydroxyapatite for Pb(II) removal from aqueous solutions, *Revista de Chimie* 70(5) (2019) 1758-1764 WOS:000470086400051;
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20. Mousa, N.E., **Simonescu C.M.**, Pătescu, R.-E., Lavric, V., Culita D.C., Regeneration of calcium alginate and chitosan coated calcium alginate sorbents to be reused for lead (II) removal from aqueous solutions, *Revista de Chimie* 68(9) (2017) 1992-1996 (autor de corespondență) ISSN 0034-7752 WOS:000393230400025;
21. Enache, D.F., Vasile, E., **Simonescu C.M.**, Razvan, A.G., Nicolescu, A., Nechifor, A.C., Oprea, O., Pătescu R.-E., Onose, C., Cysteine-functionalized silica-coated magnetite nanoparticles as potential nanoadsorbents, *Journal of Solid State Chemistry* 253 (2017) 318-328 <https://doi.org/10.1016/j.jssc.2017.06.013> ISSN: 0022-4596 WOS:000406572600044;
22. Pătescu R.-E., Busuioc T.L., Nechifor G., **Simonescu C.M.**, Deleanu C., Applicability of chitosan/hydroxyapatite composites for adsorptive removal of lead, copper, zinc and nickel from synthetic aqueous solutions, *U.P.B. Sci. Bull., Series B, Vol. 79, Iss. 1* (2017) 119-134, ISSN 1454-2331 (autor de corespondență) WOS:000403090200013;
23. Culita D.C., **Simonescu C.M.**, Patescu R.-E., Stanica N., Preda S., Munteanu C., Oprea O., Polyamine Functionalized Magnetite Nanoparticles as Novel Adsorbents for Cu(II) Removal from Aqueous Solutions, *Journal of Inorganic and Organometallic Polymers and Materials* 17(2) (2017) 490-502; ISSN: 1574-1443; DOI:10.1007/s10904-016-0491-7 WOS:000396999500012;
24. Pătescu R.-E., **Simonescu C.M.**, Onose, C., Busuioc T.L., Păsărică, D.E., Deleanu C., Simultaneous removal of lead and nickel ions from aqueous synthetic solutions by chitosan coated cobalt ferrite, *Revista de Chimie* 68(1) (2017) 1-5 (autor de corespondență) ISSN 0034-7752 WOS:00000395499200001;
25. Busuioc, L.T., **Simonescu C.M.**, Pătescu, R.-E., Onose, C., Removal of lead(II), nickel(II), zinc(II) and copper(II) from multi-metal systems by chitosan-glutaraldehyde beads, *Revista de Chimie* 67(12) (2016) 2504-2510 (autor de corespondență) ISSN 0034-7752 WOS:000393230400025;
26. Mousa, N.E., **Simonescu C.M.**, Pătescu, R.-E., Onose, C., Tardei, C., Culiță, D.C., Oprea, O., Patroi, D., Lavric, V., Pb²⁺ removal from aqueous synthetic solutions by calcium alginate and chitosan coated calcium alginate, *Reactive and Functional Polymers*, 109 (2016) 137-150 10.1016/j.reactfunctpolym.2016.11.001, WOS:000390510200019 (autor de corespondență);
27. Pătescu, R.-E., **Simonescu, C.M.**, Busuioc, L.T., Onose, C., Melinescu, A., Simultaneous Removal of Lead(II), Nickel(II), Zinc(II) and Copper(II) from Aqueous Solutions by Nano-hydroxyapatite Synthesized by Microwave Field, *Revista de Chimie* 67(10) (2016) 1899-1905, ISSN 0034-7752 WOS:000388359900002 (autor de corespondență);

28. Țârdei, C., **Simonescu, C.M.**, Onose, C., Sava, B.A., Boroica, L., Sbârcea, B.-G., Evaluation of Lab Scale Nano-hydroxyapatites for Removal of Lead Ions from Aqueous Solutions, *Romanian Journal of Materials*, ISSN 2457-502X, ISSN-L 1583186, 46(3) (2016) 289-295, WOS:000383730900005;
29. **Simonescu C.M.**, Pătescu, R.-E., Busuioc, L.T., Onose, C., Melinescu, A., Lilea, V., Application of Nano-hydroxyapatite Synthesized by Microwave in Efficient Removal of Lead(II) and Copper(II) from Aqueous Solution, *Revista de Chimie* 67(8) (2016) 1498-1503, ISSN 0034-7752 WOS:000384514200018;
30. Capatina, C., **Simonescu C.M.**, Dădălău N., Cirtina, D., Comparative Study of Air Pollution with PM_{2.5} and PM₁₀ in Târgu-Jiu – Rovinari – Turceni from Gorj County, *Revista de Chimie* 67(7) (2016) 1247-1254, ISSN 0034-7752, WOS:000385513000003 (autor de corespondență);
31. **Simonescu C.M.**, Pătescu, R.-E., Busuioc, L.T., Tache, A., Deleanu C, Lead removal from synthetic aqueous solutions by chitosan/hydroxyapatite composites, Conference: 16th International Multidisciplinary Scientific Geoconference (SGEM) Location: Albena, BULGARIA Date: 30 JUN - 6 July, 2016 ECOLOGY & ENVIRONMENTAL PROTECTION, ENVIRONMENTAL LEGISLATION, MULTILATERAL RELATIONS & FUNDING OPPORTUNITIES Book 5 – Ecology, Economics, Education and Legislation, VOL 1, Pages: 391 - 399 DOI:10.5593/sgem2016B51., ISBN:978-619-7105-65-0 Published: 2016 WOS: 000391519100052;
32. **Simonescu C.M.**, Tardei, C., Culiță, D.C., Marinescu, G., Marinescu, V., Facile synthesis, characterization and sorption properties of chitosan/hydroxyapatite composites, Conference: 16th International Multidisciplinary Scientific Geoconference (SGEM) Location: Albena, BULGARIA Date: 30 JUN – 6 July, 2016 MICRO & NANO TECHNOLOGIES ADVANCED IN BIOTECHNOLOGY Book 6 – Nano, Bio and Green – Technologies for a Sustainable Future Conference Proceedings VOL 1, Pages: 127 - 134 DOI:10.5593/sgem2016B61., ISBN:978-619-7105-68-1 Published: 2016 WOS:000391648800017;
33. Culiță D.C., **Simonescu C.M.**, Pătescu, E.-R., Dragne, M., Stanica N., and Oprea O., o-Vanillin functionalized mesoporous silica - coated magnetite nanoparticles for efficient removal of Pb(II) from water, *Journal of Solid State Chemistry*, 238 (2016) 311–320 <http://dx.doi.org/10.1016/j.jssc.2016.04.003> WOS:000375635200044;
34. Cirtina, D., Capatina, C., **Simonescu C.M.**, Assessment of Groundwater Quality in Areas Affected by Industrial Activities in Gorj County, *Revista de Chimie* 67(3) (2016) 538 – 542, ISSN 0034-7752, WOS:00375364800032 (autor de corespondență);
35. Sava, B.A., Tardei, C., **Simonescu, C.M.**, Boroica, L., Melinescu, A., Hydroxyapatite nanopowders obtained by sol-gel method, synthesis and properties, *Optoelectronics and Advanced Materials – Rapid Communications* Vol. 9, No. 11-12, Nov. – Dec. 2015, p. 1415 – 1424 WOS:000368046800015;
36. **Simonescu C.M.**, Busuioc, T.L., Lilea, V., Dragne, M., Tardei, C., Copper removal from synthetic aqueous solutions by chemically modified beads of chitosan, Conference: 15th International Multidisciplinary Scientific Geoconference (SGEM) Location: Albena, BULGARIA Date: JUN 18-24, 2015 ECOLOGY, ECONOMICS, EDUCATION AND LEGISLATION, VOL I Book Series: International Multidisciplinary Scientific GeoConference-SGEM Pages: 169-176 DOI:10.5593/sgem2015B51., ISBN:978-619-7105-39-1 Published: 2015 WOS:000370813400022;
37. **Simonescu C.M.**, Melinescu, A., Melinte, I., Pătescu, E.-R., Dragne, M., Copper removal from synthetic aqueous solutions by hydroxyapatite granules synthesized using microwave heating, 15th

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40. Culiță D.C., **Simonescu C.M.**, Dragne M., Stanica N., Munteanu C., Preda S., Oprea O., Effect of surfactant concentration on textural, morphological and magnetic properties of CoFe₂O₄ nanoparticles and evaluation of their adsorptive capacity for Pb(II) ions, *Ceramics International* 41(2015), 13553-13560 WOS:000362860900128 <http://dx.doi.org/10.1016/j.ceramint.2015.07.150>;

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

1. **Simonescu C. M.**, *Chimia „VERDE”*, *Chimia revistă pentru elevi a Societății de Chimie din România* 2 (2017) 7-9, ISSN 1583-6274

- Selecție cu maximum 20 lucrări în volume de conferințe

1. Șerban, G.-V., **Simonescu, C.M.**, Păun, I., Pîrvu, F., Iancu, V.-I., Niculescu, M., Chiriac, F.L., Elimination of Methylene Blue from Synthetic Aqueous Solutions by Adsorption on Chitosan Compounds with Synthetic Hydroxyapatites, *INTERNATIONAL SYMPOSIUM “THE ENVIRONMENT AND THE INDUSTRY”*, E-SIMI 2022, *BOOK OF ABSTRACTS*, Section Sustainable Environmental Technologies 20, DOI: <http://doi.org/10.21698/simi.2022.ab03>
2. Tătăruș, A., **Simonescu, C.M.**, Scutariu, R.E., Iancu, V.I., Pîrvu, F., Puiu, D., Galaon, T., HPLC detection of synthetic dyes in residual waters from wastewater treatment using adsorption on magnetic materials, *Romanian Journal of Ecology & Environmental Chemistry*, 2(2) (2020) 22-29 (Proceedings Paper - 23rd INTERNATIONAL SYMPOSIUM "ENVIRONMENT AND INDUSTRY" SIMI 2020) <https://doi.org/10.21698/rjeec.2020.203>

E. Brevete obținute în întreaga activitate

1. Culita, D.C., Simonescu, C.M., Marinescu, G., Patescu, R.-E., Tardei, C., Deleanu, C., Procedeu de obținere a unui adsorbant pe bază de silice mezoporoasă funcționalizată pentru adsorbția ionilor Pb²⁺ din soluții apoase, Patent Number(s): RO133147-A2, Derwent Primary Accession Number: 2019-45987H, International Patent Classification: B01J-020/10, BOPI nr. 12/2020