

Ş.L. dr. ing. CĂPRĂRESCU SIMONA

LUCRĂRI PUBLICATE ÎN PERIODICE

Selectie listă de lucrări indexate (ISI sau BDI)

1. D.-I. Vaireanu, **S. Caprarescu**, Trends And Prospects For The Use Of Biodiesel Products Science and Technology of Environmental Protection, Vol. 12, nr.1, 2005, p. 31-36, ISSN 1221- 6909
2. D.-I. Vaireanu, **S. Caprarescu**, A. Cojocaru, I. Maior, Revitalisation of Sealed Lead Acid Rechargeable Batteries, Science and Technology of Environmental Protection, Vol. 12, Nr.1, 2005, p. 50-56, ISSN 1221- 6909
3. D.-I. Vaireanu, M. Stanciu, **S. Caprarescu**, Sistem electrochimic de testare accelerată pentru desprinderea catodică a acoperirilor pentru conducte îngropate, Revista de Chimie, nr. 3, 2006, p. 258-260, ISSN 0034 – 7752
4. A. Cojocaru, I. Maior, D-I. Vaireanu, G. Badea, S. Caprarescu, Aniline Electrooxidation on Semiconductor Electrodes and Electrochemical Behavior of Polyaniline Obtained Films, Analele Univ. din Oradea, fasc. Chimie, Vol. XIV, 2007, p. 80-84, ISSN 1224-7626 – revista indexata in baza de date internationala Chemical Abstracts
5. D. I. Văireanu, A. Cojocaru, I. Maior, **S. Caprarescu**, Standardizarea bateriilor, Revista Standardizarea, nr. 1, 2008, p. 31-36, Ed. ASRO, Bucuresti, ISSN 1220-2061
6. D.-I. Vaireanu, A. Cojocaru, I. Maior, **S. Caprarescu**, Practical Considerations Regarding the Measurement of Ionic Conductivity by EIS in Conductive Polymers, Chem. Bull. "POLITEHNICA" Univ. of Timisoara, Series Chemistry and Environmental Engineering, Vol. 53(67), 1-2, 2008, p. 258-261, ISSN 1224-6018, CNCSIS B+
7. D.-I. Vaireanu, A. Cojocaru, I. Maior, **S. Caprarescu**, Calibration System for Furnace Corrosion Monitoring Probes, Analele Univ. din Oradea, fasc. Chimie, Vol. XV, 2008, p. 174-178, ISSN 1224-7626 – revista indexata in baza de date internationala Chemical Abstracts
8. **S. Căprărescu**, D.-I. Văireanu, A. Cojocaru, I. Maior, V. Purcar, A. Sîrbu, Removal of Cu ions from aqueous solutions using cation- and anion-exchange membranes by electrodialysis process, U.P.B. Sci. Bull., Series B, Vol. 71, Iss. 1, 2009, p. 33-40, ISSN 1454-2331
9. **S. Caprarescu**, D.-I. Vaireanu, A. Cojocaru, I. Maior, A. Sarbu, Removal of Copper Ions from Electroplating Wastewater by Ion-exchange Membranes, Rev. Chim., Vol. 60, Nr. 7, 2009, p. 673-677 ISSN: 0034-7752
10. D. I. Vaireanu, A. Cojocaru, I. Maior, **S. Caprarescu**, A. Ionescu, V. Radu, Considerations on Reducing the Experimental Duration of Electrochemical Impedance Spectroscopy Measurements used for the Evaluation of Ionic Conductivity in Polymer

Electrolyte Membrane Electrolysers and Fuel Cells, Key Engineering Materials Vol. 415, 2009, p. 61-64, ISSN: 1662-9795

11. I. Maior, G. E. Badea, D.-I. Vaireanu, A. Cojocaru, **S. Căprărescu**, *Environmental Implications of Energy Production*, Analele Universității din Oradea, Fascicula de Energetică, Vol. 15, 2009, p. 260-265, ISSN 1224 – 1261
12. A. Cojocaru, I. Maior, D.-I. Vaireanu, I. Lingvay, C. Lingvay, **S. Caprarescu**, *Estimation of Inhibition Efficiency for Carbon Steel Corrosion in Acid Media by Using Natural Plant Extracts*, Revista de Chimie (Bucuresti), Vol. 60, nr. 11, 2009, p. 1175-1180
13. A. Cojocaru, I. Maior, I. Lingvay, C. Lingvay, **S. Căprărescu**, D.-I. Văireanu, *Carbon Steel Corrosion Inhibition by Plant Extract Based Green Inhibitors*, Studia Universitatis Babes-Bolyai Chemia, Cluj Napoca, LIV, Vol. 1, Nr. special, 2009 p. 41-54, ISSN 1224-7154
14. A. Cojocaru, I. Maior, D. I. Văireanu, C. Lingvay, I. Lingvay, **S. Căprărescu**, G.E. Badea, *Ethanol extract of Fagus Sylvatica leaves as an eco-friendly inhibitor for carbon steel corrosion in acidic solutions*, Journal of Sustainable Energy, 1 (3), 2010, p. 64-71; ISSN: 2067-5534, (BDI)
15. I. Maior, A. Cojocaru, D. I. Văireanu, I. Lingvay, C. Lingvay, **S. Căprărescu**, *Characterization of corrosion and scale processes in cooling systems*, Journal of Sustainable Energy, 1 (4), 2010, p. 37-41, (BDI)
16. A. Cojocaru, I. Maior, I. Lingvay, C. Lingvay, **S. Căprărescu**, D.I. Văireanu, *Considerations Regarding the Efficiency of Environmentally Friendly Novel Type Inhibitors*, Corrosion and Anticorrosive Protection, vol. V, nr. 4, 2010, p. 16-21, ISSN 1842-0346
17. I. Maior, A. Cojocaru, D. I. Văireanu, I. Lingvay, C. Lingvay, **S. Căprărescu**, *Agrimonia Eupatoria Extract as a Green Corrosion Inhibitor for Carbon Steel in Acid Solutions*, Corrosion and Anticorrosive Protection, vol. VI, nr. 1, 2011, p. 18-25, ISSN 1842-0346
18. **S. Caprarescu**, D. I. Vaireanu, A. Cojocaru, I. Maior, V. Purcar, *A 3-Cell Electrodialysis System for the Removal of Copper Ions from Electroplating Wastewater*, Optoelectronics and Advanced Materials Rapid Communications, Vol. 5, Nr. 12, 2011, p. 1346 – 1351
19. I. Maior, A. Cojocaru, D.-I. Vaireanu, E. B. Gabriela, **S. Caprarescu**, *Preliminary Studies Concerning Electricity Generation In Microbial Fuel Cells*, Journal of Sustainable Energy, Vol. 2, Nr. 4, 2011, p.1-6
20. **S. Caprarescu**, V. Purcar, D.-I. Vaireanu, *Separation of Copper Ions From Synthetically Prepared Electroplating Wastewater at Different Operating Conditions Using Electrodialysis*, Separation Science and Technology, Vol. 47, Nr. 16, 2012, p. 2273 - 2280, ISSN 0149-6395
21. **S. Căprărescu**, V. Purcar, A. Sârbu, A. L. Ciripoiu, I. Maior, *Copper Ions Removal From Electroplating Wastewater Using New Type Of Ion Exchange Membranes*, Journal of Science and Arts, Nr. 3(20), 2012, p. 323-330, ISSN 1844-9581, BDI
22. **S. Căprărescu**, V. Purcar, I. Maior, A. Sârbu, *New Techniques For Evaluation Of Ionic Conductivity Of Ion Exchange Membranes Used In The Electrodialysis Process*, Journal of Science and Arts, Nr. 3(20), 2012, p. 303-312, ISSN 1844-9581, BDI

23. V. Purcar, **S. Caprarescu**, D. Donescu, C. Petcu, I. Stamatin, R. Ianchis, H. Stroescu, *Degradation of TiO₂ and/or SiO₂ hybrid films doped with different cationic dyes*, Thin Solid Films, 534, 2013, p. 301–307, doi: 10.1016/j.tsf.2013.01.098
24. V. Purcar, D. Donescu, I. C. Spataru, M. Ghiurea, **S. Caprarescu**, C. Petcu, C. L. Nistor, *Surface modification of sol-gel hybrid films using fluorinated silica nanoparticles*, Revue Roumaine de Chimie, 58(1), 2013, p. 37-42
25. **S. Caprarescu**, V. Purcar, A. Sarbu, A.-L. Radu, M. Ghiurea, I. Maior, *The use of electrodialysis for Cu²⁺ removal from wastewater*, Revue Roumaine de Chimie, 59(8), 2014, p. 639-644, ISSN: 0035-3930, ISSN: 0035-3930
26. **S. Caprarescu**, A.-L. Radu, V. Purcar, A. Sarbu, D.-I. Vaireanu, R. Ianchis, M. Ghiurea, *Removal of Copper Ions from Simulated Wastewaters Using Different Bicomponent Polymer Membranes*, Water, Air, & Soil Pollution, Vol. 225, Nr. 8, 2014, 2079
27. **S. Caprarescu**, A.-L. Radu, V. Purcar, R. Ianchis, A. Sarbu, M. Ghiurea, C. Nicolae, C. Modrogan, D.-I. Vaireanu, A. Périchaud, D.-Ion Ebrasu, Adsorbents/ion exchangers-PVA blend membranes: Preparation, characterization and performance for the removal of Zn²⁺ by electrodialysis, Applied Surface Science, 329, 2015, p. 65–75
28. **S. Caprarescu**, M. C. Corobeia, V. Purcar, C. I Spataru, R. Ianchis, G. Vasilievici, Z. Vuluga, *SAN copolymer membranes with ion exchangers for Cu (II) removal from synthetic wastewater by electrodialysis*, Journal of Environmental Sciences-China, Vol. 35, 2015, p. 27–37, ISSN 1001-0742
29. I.-A. Ciobotaru, D.-I. Văireanu, I. Maior, A. Cojocaru, **S. Caprarescu**, *Electrochemical techniques as a useful aid for deposition and characterisation of silane coatings*, Bulletin of Romanian Chemical Engineering Society, Vol. 2, Nr. 1, 2015, ISSN 2360-4697, p. 56–64, Index Copernicus International ICV 2015:62,58
30. I. Maior, I.-A. Ciobotaru, **S. Căprărescu**, A. Cojocaru, D.-I. Văireanu, *Electrochemical Studies on Modified Organo-Silanes Composite Coatings for Aluminium Corrosion Inhibition*, STUDIA UBB CHEMIA, LX, 3, 2015, p. 87-98
31. A.R. Miron, C. Modrogan, D.-E. Pascu, O.D. Orbuleț, **S. Căprărescu**, *Use of ion exchange processes on weak acid resins for nickel removal from waste waters*, International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, Vol. 1, Nr. 5, 2015, p. 999-1006, ISSN: ISSN 1314-2704
32. D. E. Pascu, C. Modrogan, A. R. Miron, P. C. Albu, D. D. Clej, M. Pascu (Neagu), **S. Caprarescu**, *Use of mathematical modelling in water and wastewater area*, Revista de Chimie, Vol. 66, Nr. 12, 2015, p. 1950-1955
33. **S. Caprarescu**, A. R. Miron, V. Purcar, A.-L. Radu, A. Sarbu, D. Ion-Ebrasu, L.-I. Atanase, M. Ghiurea, *Efficient removal of Indigo Carmine dye by a separation process*, Water Science and Technology, Vol. 74, Nr. 10, 2016, p. 2462-2473
34. I.-A. Ciobotaru, I. Maior, D.-I. Vaireanu, A. Cojocaru, **S. Caprarescu**, I.-E. Ciobotaru, *The determination of the optimum hydrolysis time for silane films deposition*, Applied Surface Science, Vol. 371, 2016, p. 275–280
35. **S. Caprarescu**, R. Ianchis, A.L. Radu, A.Sarbu, S. Raluca, B. Trica, E. Alexandrescu, C.-I. Spataru, R. C. Fierascu, D. Ion-Ebrasu, S. Preda, L.-I. Atanase, D. Donescu, *Synthesis, characterization and efficiency of new organically modified montmorillonite*

- polyethersulfone membranes for removal of zinc ions from wastewasters*, Applied Clay Science, Vol. 137, 2017, p 135–142
36. **S. Caprarescu**, A. R. Miron, V. Purcar, A. L. Radu, A. Sarbu, R. Ianchis, D. Ion Erbasu, *Commercial Gooseberry Buds Extract Containing Membrane for Removal of Methylene Blue Dye from Synthetic Wastewaters*, Revista de Chimie (Bucharest), Vol. 68, Nr. 8, 2017, p. 1757-1762, ISSN 2537-5733
37. L.I. Atanase, J.-P. Lerch, **S. Caprarescu**, C.E. Iurciuc (Tincu), G. Riess, *Micellization of pH-sensitive poly(butadiene)-block-poly(2 vinylpyridine)-block-poly(ethylene oxide) triblock copolymers: Complex formation with anionic surfactants*, Journal of Applied Polymer Science, Vol. 134, Nr. 38, 2017, Article number 45313, ISSN: 0021-8995, DOI: 10.1002/app.45313
38. V. Purcar, R. Șomoghi, S. G. Nițu, C.-A. Nicolae, E. Alexandrescu, I. C. Gîfu, A. R. Gabor, H. Stroescu, R. Ianchiș, **S. Caprarescu**, L. O. Cintea, *The Effect of Different Coupling Agents on Nano-ZnO Materials Obtained via the Sol-Gel Process*, Nanomaterials, Vol. 7, Nr. 12, 2017, 439, ISSN 2079-4991, doi:10.3390/nano7120439
39. **S. Caprarescu**, V. Purcar, A. R. Miron, A. L. Radu, M. Pascu (Neagu), Preparation and characterisation of polymer membranes enhanced with medicinal plant extract, International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 2017, Vol. 17, Nr. 52, p. 713-719, doi:10.5593/sgem2017/52, ISSN 1314-2704 (indexata SCOPUS)
40. **S. Caprarescu**, V. Purcar, A. L. Radu, E. Alexandrescu, C. Modrogean, *Removal of nickel ions from synthetic wastewater by electrodialysis using polymer membranes doped with plant extract*, International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, Vol. 17, Nr. 52, 2017, p. 755-761, doi:10.5593/sgem2017/52, ISSN 1314-2704 (indexata SCOPUS)
41. V. Purcar, R. Somoghi, V. Raditoiu, D. M. Panaitescu, **S. Caprarescu**, *Structure modification of hybrid zirconium sol-gel coatings*, International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, Vol. 17, Nr. 61, 2017, p. 331-336, ISSN 1314-2704 (indexata SCOPUS)
42. **S. Caprarescu**, A. R. Miron, V. Purcar, A. L. Radu, A. Sarbu, C. A. Nicolae, M. (Neagu) Pascu, D. Ion-Ebrasu; V. Raditoiu, *Treatment of Crystal Violet from Synthetic Solution Using Membranes Doped with Natural Fruit Extract*, Clean-Soil Air Water, 46 (7), 2018, Article Number: 1700413
43. V. Purcar, V. Rădițoiu, A. Dumitru, C.-A. Nicolae, A. N. Frone, M. Anastasescu, A. Rădițoiu, M. F. Raduly, R. A. Gabor, **S. Căprărescu**, *Antireflective coating based on TiO₂ nanoparticles modified with coupling agents via acid-catalyzed sol-gel method*, Applied Surface Science, 487, 2019, p. 819-824
44. V. Purcar, V. Rădițoiu, C.-A. Nicolae, A. N. Frone, A. Rădițoiu, F. M. Raduly, R. Șomoghi, R. A. Gabor, **S. Căprărescu**, *Synthesis and morpho-structural properties of TiO₂-based materials*, Journal of Optoelectronics and Advanced Materials, 21 (3-4), 2019, p. 281-286
45. **S. Caprarescu**, C. Modrogean, V. Purcar, A. M. Dancila, I. Fierascu, *Study of corrosion efficiency of mild steel using commercial liquid additives for fish in natural water*, Revista de Chimie (Bucharest), 70 (4), 2019, 1140-1143

46. **S. Caprarescu**, A. L. Radu, V. Purcar, M. (Neagu) Pascu, T. Sandu, A. Zaharia, C.-T. Cojocaru, M. V. Dumitru, R. E. Botez, B. Tsyntsarski, G. Georgi, S. Ivanka, A. Sarbu, *Innovative two-component polymer membranes as viable means for heavy metals removal from wastewater*, XIX International Multidisciplinary Scientific GeoConference, Water Resources, Forest, Marine and Ocean Ecosystems, SGEM, 19 (3.1), 2019, p. 305-314, ISSN 1314-2704, DOI: 10.5593/sgem2019/3.1/S12.040 (SCOPUS indexing)
47. A. M. Dancila, O. D. Orbulet, C. Modrogean, **S. Caprarescu**, *Soybean waste material as potential adsorbent for heavy metal ions from aqueous solutions*, XIX International Multidisciplinary Scientific GeoConference, Ecology, Economics, Education and Legislation, SGEM, 19 (5.2), 2019, p. 823-830, ISSN 1314-2704, DOI: 10.5593/SGEM2019/5.2 (SCOPUS indexing)
48. **S. Caprarescu**, D. Ion-Ebrasu, A. Soare, V. Purcar, A.-L. Radu, A. Sarbu, M. (Neagu) Pascu, C. Modrogean, A. M. Dancila, C. Deleanu, *Removal of nickel ions from synthetically wastewater using membrane doped with natural biosorbent*, Romanian Journal of Physics, 64 (9-10), 2019, 821
49. D. Ion-Ebrasu, B.G. Pollet, A. Spinu-Zaulet, A. Soare, E. Carcdea, M. Varlam, **S. Caprarescu**, *Graphene modified fluorinated cation-exchange membranes for proton exchange membrane water electrolysis*, International Journal of Hydrogen Energy, 44 (21), 2019, p. 10190-10196
50. **S Caprarescu**, V. Purcar, C. Modrogean, *Commercial aqueous additives used as eco-friendly corrosion inhibitors for carbon steel in natural seawater*, Revue Roumaine de Chimie, 65(1), 2020, p. 77-82
51. V. Rădițoiu, V. Purcar, A. Rădițoiu, M. F. Raduly, A. N. Frone, M. Anastasescu, M. Stoica, Elvira Alexandrescu, R. Şomoghi, R. Manea, G. C. Ispas, L. E. Wagne, **S. Căprărescu**, *Sol-gel hybrid films based on organosilanes with long alkyl chains*, Journal of Coatings Technology and Research, 2020, 17(5), p. 1389-1399, doi: 10.1007/s11998-020-00359-8
52. D. Ion-Ebrasu, E. Carcdea, M. Varlam, Bruno G. Pollet, **S. Caprarescu**, V. Niculescu, A. Chitu, R. Trusca, R. Gabor, B. Vasile, *Graphene Inclusion Effect on Anion-Exchange Membranes Properties for Alkaline Water Electrolyzers*, International Journal of Hydrogen Energy, 45(35), 2020, p. 17057-17066. <https://doi.org/10.1016/j.ijhydene.2020.04.195>
53. A. M. Dăncilă, **S. Caprarescu**, C. Bobirică, V. Purcar, G. Gărleanu, V. Eugeniu, C. Modrogean, C. Borda, D. Dobrotă, *Optimization of the Technological Parameters of Obtaining Zn-Ti Based Composites for Increasing the Performance of H₂S Removal from Syngas*, Processes, 2020, 8, 562. doi:10.3390/pr8050562
54. **S. Căprărescu**, R. G. Zgârian, G. T. Tihan, V. Purcar, E. E. Totu, C. Modrogean, A.-L. Chiriac, C. A. Nicolae, *Biopolymeric membrane enriched with chitosan and silver for metallic ions removal*, Polymers, 2020, 12, 1792. doi:10.3390/polym12081792
55. C. Modrogean, **S. Căprărescu***, A. M. Dăncilă, O. D. Orbulet, E. Vasile, V. Purcar, *Mixed Oxide Layered Double Hydroxide Materials: Synthesis, Characterization and Efficient Application for Mn²⁺ Removal from Synthetic Wastewater*, Materials, 2020, 13(18), 4089; doi:10.3390/ma13184089

56. **S. Căprărescu**, A. M. Dăncilă, C. Modrogean, V. Purcar, *Corrosion Protection of Carbon Steel Using Natural Seaweeds from Seawater*, Proceedings, 2020, 55(1), 1; doi:10.3390/proceedings2020055001
57. **S. Caprarescu**, V. Purcar, V. Raditoiu, C. A. Nicolae, C. Modrogean, A. A. Scarlat, *Efficient and versatile laboratory electrodialysis device used for removal of iron ions from a synthetic wastewater*, Romanian Reports in Physics, Accepted article 2021
58. T. Sandu, A. Radu, B. Tsyntsarski, I. Stoycheva, **S. Căprărescu**, C. Damian, T. Iordache, A. Sarbu, *Advanced Hybrid Membranes for Efficient Nickel Retention from Simulated Wastewater*, Polymer International, Accepted article 2021
59. V. Purcar, V. Rădițoiu, A. Raditoiu, R. Manea, F. M. Raduly, G. C. Ispas, A. N. Frone, C. A. Nicolae, R. A. Gabor, M. Anastasescu, H. Stroescu, **S. Căprărescu**, *Preparation and characterization of some sol-gel modified silica coatings deposited on polyvinyl chloride (PVC) substrates*, Coatings, 2021, 11(1)11; <https://doi.org/10.3390/coatings11010011>
60. V. Purcar, V. Rădițoiu, A. Rădițoiu, F. M. Raduly, R. Manea, A. Frone, M. Anastasescu, G. C. Ispas, **S. Căprărescu**, *Bilayer coatings based on silica materials and iron (III) phthalocyanine – Sensitized TiO₂ photocatalyst*, Materials Research Bulletin, 2021, 138, 111222, <https://doi.org/10.1016/j.materresbull.2021.111222>