

UNIVERSITATEA PETROL - GAZE DIN PLOIEȘTI

FACULTATEA Tehnologia Petrolului și Petrochimie

DEPARTAMENTUL Chimie

Examen promovare: Profesor universitar, Poz. 4

Candidat: Conf. habil. dr. chim. Mihai Sonia

LISTĂ DE LUCRĂRI

1. Matei D., Postelnicu M., **Mihai S.**, Cursaru D-L., *Influence of the Synthesis Method on the Textural and Morphological Characteristics of Ni-Based Mesoporous Molecular Sieves*, **Materials**, 2025, 18, 1012. <https://doi.org/10.3390/ma18051012>
2. Marian Bajan, Diana-Luciana Cursaru, **Sonia Mihai** The impact of graphene oxide nanoparticles decorated with silver nanoparticles (GrO/AgNP) on the cellulose acetate (CA) membrane matrix used for hydrocarbon removal from water, **Membranes**, 2025, <https://doi.org/10.3390/membranes15060158>
3. **Mihai S.**, Bondarev A., Necula M., The Potential of Biogenic Materials as Sustainable and Environmentally Benign Alternatives to Conventional Adsorbents for Dyes Removal: A Review, **Processes**, 2025, 13, <https://doi.org/10.3390/pr13020589>
4. Andreea Bondarev, **Sonia Mihai***, Abubakar Usman Katsina, Diana Luciana Cursaru, Danuta Matei, Veronica Satulu, Catalina Gheorghe, Gheorghe Brănoiu, Somoghi Raluca *A Facile Microwave-Promoted Formation of Highly Photoresponsive Au-decorated TiO₂ Nanorods for Enhanced Photo-degradation of Methylene Blue*, **Nanomaterials**, 2024, 14, 1780. <https://doi.org/10.3390/nano14221780>
5. Calin, C., Dinita, A., Brănoiu G., Popovici D.R., Tanase, M., Sirbu E.E., Portoaca A.I., **Mihai S.** *Assessment of Environmental Impact on Glass-Fiber_Reinforced Polymer Pipes Mechanical and Thermal Properties*, **Polymers**, 2024, 16, 16, 1779. <https://doi.org/10.3390/polym16131779>
6. Viorel Gheorghe, Catalina Gabriela Gheorghe, Daniela Roxana Popovici, **Sonia Mihai**, Raluca Elena Dragomir, Raluca Somoghi, *Reduction of Oxygen Production by Algal Cells in the Presence of O-Chlorobenzylidene Malononitrile*, **Bioengineering**, 2024, 11, 623. <https://doi.org/10.3390/bioengineering11060623>
7. Raluca Somoghi, **Sonia Mihai**, George-Mihail Teodorescu, Zina Vuluga, Augusta Raluca Gabor, Cristian-Andi Nicolae, Bogdan Trică, Daniel Mihai Stănescu Vătău, Florin Oancea, Cătălin Marian Stănculescu, *Influence of HNT-ZnO Nanofillers on the Performance of Epoxy Resin Composites for Marine Applications*, **Coatings**, 2024, 14, 532. <https://doi.org/10.3390/coatings14050532>
8. **Mihai, S.**, Bondarev, A., Calin, C., Sirbu, EE., *Adsorbent Biomaterials Based on Natural Clays and Orange Peel Waste for the Removal of Anionic Dyes from Water*, **Processes**, 2024, 12(5), p.1032, ISSN 2227-9717 <https://doi.org/10.3390/pr12051032>
9. Abubakar Usman Katsina, Diana-Luciana Cursaru, Dănuța Matei, **Sonia Mihai**, Effect of Morphology Modification of BiFeO₃ on Photocatalytic Efficacy of P-g-C3N4/BiFeO₃ Composites, **Int. J. Mol. Sci.** 2024, 25, 4948. <https://doi.org/10.3390/ijms25094948>

10. N. Giagkas, J. Nasr, D. Matei, S. Vizireanu, D. L. Cursaru, **S. Mihai**, *Preparation and tribologic properties of Ti and Zr nitride multilayer coatings*, **Digest Journal of Nanomaterials and Biostructures**, 2024, 19,2, 743.
11. Gheorghe, V., Gheorghe, CG., Popovici, DR., **Mihai, S.**, Calin, C., Sarbu, EE., Doukeh, R., Grigoriu, N., Toader, CN., Epure, C., Matei, V., *Synthesis, Purity Check, Hydrolysis and Removal of o-Chlorobenzyliden Malononitrile (CBM) by Biological Selective Media*, **Toxics**, 2023, 11(8), p.672, ISSN 2305-6304 <https://doi.org/10.3390/toxics11080672>
12. Abubakar Usman Katsina, **Sonia Mihai**, Dănuța Matei, Diana-Luciana Cursaru, Raluca Somoghi, Cristina Lavinia Nistor, *Construction of Pt@BiFeO₃ Xerogel-Supported O-g-C₃N₄ Heterojunction System for Enhanced Visible-Light Activity towards Photocatalytic Degradation of Rhodamine B*, **Gels**, 2023, 9,471. <https://doi.org/10.3390/gels9060471>
13. Bondarev, A., Popovici, DR., Calin, C., **Mihai, S.**, Sîrbu, EE., Doukeh, R., *Black Tea Waste as Green Adsorbent for Nitrate Removal from Aqueous Solutions*, **Materials**, 2023, 16(12), p.4285, ISSN 1996-1944, <https://doi.org/10.3390/ma16124285>
14. D. Matei, A. K. Usman., **S. Mihai**, D. L Cursaru, R., Somoghi, C.L.Nistor, *Synthesis of Ruthenium-Promoted ZnO/SBA-15 Composites for Enhanced Photocatalytic Degradation of Methylene Blue Dye*, **Polymers** 2023, 15, 1210. <https://doi.org/10.3390/polym15051210>
15. A. K. Usman., D. L Cursaru, Gh. Brănoiu, R., Somoghi, A. M. Manta, D. Matei, **S. Mihai**, *A Modified Sol-Gel Synthesis of Anatase {001}-TiO₂/Au Hybrid Nanocomposites for Enhanced Photodegradation of Organic Contaminants*, **Gels** 2022, 8, 728. <https://doi.org/10.3390/gels8110728>
16. Daniela Roxana Popovici, Mihaela Neagu, Cristina Maria Dusescu-Vasile, Dorin Bombos, **Sonia Mihai**, Elena-Emilia Oprescu *Adsorption of p-nitrophenol onto activated carbon prepared from fir sawdust: isotherm studies and error analysis*, **Reaction Kinetics, Mechanisms and Catalysis**, 2021, 133, <https://doi.org/10.1007/s11144-021-01997-8>
17. Giagkas, N., Micu I.F., Vizireanu, S., Vasile, N., Bita, B.I., Satulu, V., **Mihai, S.**, Manta A.M., Cursaru D.L. *Tribological properties of Zr.N coatings deposited by magnetron sputtering in reactive and no-reactive mode*, **Digest Journal of Naomaterials and Biostructures**, 2021, 16 (92) pp.659-667.
18. Brănoiu, G., Cehlarov, A., Cursaru, D.L., **Mihai, S.**, *Celestine from Valea Sarii (vrancea region): New data and crystal structure refinement*, **Revista de chimie**, 2020, 71, 8, pp. 72-79.
19. **Mihai S.**, Cursaru D.L., Matei D., Manta A.M., Somoghi R., Brănoiu G., *Rutile Ru_xTi_{1-x}O₂ nanobelts to enhance visible light activated photocatalytic activity*, **Scientific Reports**, 2019, 9, 18798 <https://doi.org/10.1038/s41598-019-55446-7>
20. Cursaru DL., Giagkas N., Vizireanu S., **Mihai S.**, Matei D., Biță B., Stancu C., Manta A.M., Ramadan I, *Improvement of Antiwear Properties by Coating the Steel Surfaces and by Lubricant Additivation*, **Digest Journal of Nanomaterials and Biostructures**, 2019, 14, No 4, p. 907-915.
21. Manta AM., Cursaru DL., **Mihai S.**, *The influence of synthesis conditions on the structural and redox properties of Mn-MCM-41*, **Digest Journal of Nanomaterials and Biostructures**, 2019, 14, No 3, p. 509-515.
22. Brănoiu, G., Cursaru, D., **Mihai, S.**, Ramadan, I., *Rietveld structure refinement of the apophyllite crystals from Deccan Basalt Plateau using X-ray power diffraction data*, **Revista de chimie**, 2019, 70, (12), pp.4248-4254.
23. Cursaru D.L., Nassreddine S., Riachi B., Neagu M., **Mihai S.**, Matei D., Brănoiu G. *Impact of moisture on the corrosion behavior of copper and mild carbon steel in corn biodiesel*, **Corrosion Rev.**, 2018, 36, 6, p.559-574, ISSN 2191-0316.

24. **Mihai S.**, Cursaru D.L., Matei D., Dinescu A., Stoica S.D., Vizireanu S., Dinescu G., *Carbon Nanowalls Decorated with Gold Nanoparticles for Surface-Enhanced Raman Spectroscopy*, **Digest Journal of Nanomaterials and Biostructures**, 2018, 13, No 3, p. 743-749, ISSN 1842–3582.
25. Cursaru L. D., Doicin B., **Mihai S.**, *Connection between Co/MCM-48, catalyst synthesis conditions and performances in the steam reforming process through artificial network*, **Digest Journal of Nanomaterials and Biostructures**, 2017, 12, No 2, p. 483-494, ISSN 1842–3582.
26. Bondarev, A., Pantea, O., **Mihai, S.**, Calin, C., Gheorghe, CG., *Removal of Cadmium from Aqueous Solutions Using Low Cost Sorbents*, **Revista de Chimie**, 2016, 67(4), p. 728-733, ISSN 0034-7752 <http://bch.ro/pdfRC/BONDAREV%20A%204%2016.pdf>
27. Matei D., Cursaru D.L., **Mihai S.**, *Preparation of MCM-48 mesoporous molecular sieve influence of preparation conditions on the structural properties*, **Digest Journal of Nanomaterials and Biostructures**, 2016, 11, 1, p. 271-276, ISSN 1842–3582
28. **Mihai S.**, Cursaru L. D., Ghita D., Dinescu A., *Morpho ierarhic TiO₂ with plasmonic gold decoration for highly active photocatalysis properties*, **Materials Letters**, 2016, 162, p. 222-225, ISSN 0167-577X
29. Gheorghe Branoiu, **Sonia Mihai**, Diana Cursaru, *Rietveld Structure Refinement of the Stibnite Crystals from Herja (Romania) using X-ray Powder Diffraction Data* **Rev.Chim.** (Bucharest), 2015, 66, 6, p.825-828, ISSN 0034-7752
30. Cursaru D., Ghiță D., **Mihai S.** *Effect of functionalization of single walled carbon nanotubes on antiwear properties of a mineral oil*, **Digest Journal of Nanomaterials and Biostructures**, 2014, 9, No 4, p. 1379-1388, ISSN 1842–3582
31. Cursaru D., Vizireanu S., **Mihai S.**, Ghiță D., Stoica, D.S., Dinescu Gh., *Friction and wear properties of carbon nanowalls coatings*, **Digest Journal of Nanomaterials and Biostructures**, 2014, 9, No 3, p. 1105-1114, ISSN 1842–3582
32. D. Bombos, R. Ganea, V. Matei, C. Marinescu, A. Bondarev, **S. Mihai**, T. Natu, I. Tamas, *Modified Bentonite for Purification of Dyeing Waste Water*, **Rev.Chim.** (Bucharest), 2014, 65, 8, p.976-982, ISSN 0034-7752
33. Calin, C., Scaeteanu, G., Pantea, O., Ilie, L., Bondarev, A., **Mihai, S.**, *Influence of Dithiocarbamates used for Phytosanitary Treatments on the Microelement Contents from Vineyard Soil in Tohani Region of Romania*, **Revista de Chimie**, 2014, 65(4), p. 497-501, ISSN 0034-7752 <https://revistadechimie.ro/Articles.asp?ID=4041>
34. **Mihai, S.**, *Synthesis of Gold Nanoparticles Using Schiff Base*, **Acta Phys. Pol A**, 2013, 123, 2, p. 254-255, ISSN 1898-794X
35. Cursaru D., **Mihai S.**, *Evaluation of thermal stability of biodiesel synthesized from different edible oils by thermogravimetric analysis*, **Revista de Chimie**, 2013, 64, nr. 10, p. 1156-1159, ISSN 0034-7752.
36. **Mihai S.**, Bondarev A., Negoiu M., *Complexes of Pt(II) and Pd(II) with Symmetrical Bipodal N, N-bis-antipyrine-N' pyridinethioureas*, **Rev.Chim.** (Bucharest), 2013, 64, 2, p.191-195, ISSN 0034-7752.
37. **Mihai S.**, Malaiesteanu, M., *Size-dependent Antibacterial of Gold Colloids*, **Rev.Chim.** (Bucharest), 2013, 64, 1, p.105-107, ISSN 0034-7752.
38. Cursaru D., **Mihai S.**, Corrosion behavior of automotive materials in biodiesel from sunflower oil, **Revista de Chimie**, 2012, Vol. 63, nr. 9, p. 945-948, ISSN 0034-7752.
39. **S. Mihai**, M. Negoiu, *Synthesis characterization and antitumor activity of platinum (II), palladium (II), gold (III), silver (II), cooper (II), rhodium (III), ruthenium(III) complexes with N-antipirine N' benzoylthiourea*, **Rev.Chim.** (Bucharest), 2012, 63, 7, p. 697-702, ISSN 0034-7752

40. A Bondarev, **S Mihai**, O Pantea, S Neagoe, *Use of biopolymers for the removal of metal ion contaminants from water*, **Macromolecular Symposia**, 2011, 303, 1, p. 78-84, ISSN 1022-1360
41. Andreea Bondarev, Flavian Cuiban, **Sonia Mihai**, *Synthesis and Characterization of N-acylation and N-alkylation Derivatives of 4-azasebacic Acid and Diethyl-4-azasebacate* **Rev.Chim.** (Bucharest), 2009, 60, 11, p.1155-1159, ISSN 0034-7752.
42. **Sonia Mihai**, Maria Negoiu, Andreea Bondarev, *Synthesis, Characterization and Biological Activity of Some Novel Metal Complexes of Schiff Base Derived from p-phenyldiamine and 2-thiophene Carboxaldehyde* **Rev.Chim.** (Bucharest), 2009, 60, 8, p.778-782, ISSN 0034-7752.
43. **Sonia Mihai**, Maria Negoiu, *Synthesis and Characterization of Ni (II), Pt (IV), Pd (II), Co (II), Au (III), Cu (II) Complexes with Mixed Ligands*, **Rev.Chim.** (Bucharest), 2009, 60, 3, p.222-225, ISSN 0034-7752.
44. Negoiu M., **Mihai S.**, Neagoe S., Pantea O., *Co(II), Cd(II), Pd(II), Rh(III) and Pt(IV) complex combinations with thiuram* **Rev.Chim.** (Bucharest), 2007, 58, 10, p.866-869, ISSN 0034-7752.

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