

**Lista lucrărilor publicate**

**A - Teza de doctorat**

*Combinatii complexe polinucleare ale zincului, cadmiului și cuprului cu liganzi cu atom donor sulf*

**B - Cărți și capitole în cărți**

1. **A. Dumbrava**, *Introducere in chimia metalelor*, Editura PIM, Iasi 2014
2. **A. Dumbrava**, *Chimie*, Editura “Ovidius University Press”, Constanta 2011
3. **A. Dumbrava**, *Chimie. Indrumar de laborator*, Editura “Ovidius University Press”, Constanta 2011
4. I. Carazeanu Popovici, **A. Dumbrava**, *Chimie generala. Lucrari practice*, Editura “Ovidius University Press”, Constanta 2011
5. **A. Dumbrava**, *Bazele teoretice ale chimiei coordinative. Probleme*, Editura “Ovidius University Press”, Constanta 2004
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7. **A. Dumbrava**, *Chimia metalelor I*, Editura “Ovidius University Press”, Constanta 2003
8. **A. Dumbrava**, *Combinatii complexe polinucleare ale zincului, cadmiului si mercurului cu liganzi organici*, Editura “World Scientific Works”, Constanta 2001
9. **A. Dumbrava**, *Lucrari practice de chimia metalelor*, Editura “Ovidius University Press”, Constanta 2001
10. **A. Dumbrava**, I. Carazeanu, *Lucrari practice de chimie anorganica. Sinteze in chimia anorganica*, Editura “Ovidius University Press”, Constanta 2000
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12. N. Rasanu, J. Nicolae, **A. Dumbrava**, *Lucrari practice de chimie organica*, Tipografia Universitatii “Ovidius”, Constanta 1993
13. M. Mihaesi, E. Chirila, **A. Dumbrava**, I. Carazeanu, *Caiet de lucrari practice de chimie generala pentru profilul mecanic si constructii*, Tipografia Universitatii “Ovidius”, Constanta 1992

**C - Lucrări în reviste cotate/indexate WoS/BDI**

1. I. Carazeanu Popovici, I. Rosca, **A. Dumbrava**, *Modified red clays as adsorbents in the removal of cationic dyes from aqueous solutions*, Digest Journal of Nanomaterials and Biostructures 18 (2023) 567 – 578. <https://doi.org/10.15251/djnb.2023.182.567>
2. **Anca Dumbrava**, Cristian Matei, Aurel Diacon, Florin Moscalu, Daniela Berger, *Novel ZnO-biochar nanocomposites obtained by hydrothermal method in extracts of Ulva lactuca collected from Black Sea*, Ceramics International 49 (2023) 10003-10013. <https://doi.org/10.1016/j.ceramint.2022.11.178>
3. I. Carazeanu Popovici, A. Diacon, F. Moscalu, **A. Dumbrava**, *A comparative study of the properties of yttrium and lanthanum aluminates obtained by Pechini sol-gel*

*process*, Journal of Ovonic Research 18 (2022) 259-271. <https://doi.org/10.15251/JOR.2022.182.259>

4. A. Ndiaye, A. Dioum, C.I. Oprea, **A. Dumbrava**, J. Lungu, A. Georgescu, F. Moscalu, M.A. Girtu, A.C. Beye, I. Youm, *A combined experimental and computational study of chrysanthemin as a pigment for dye-sensitized solar cells*, *Molecules* 26 (2021) 225. <https://doi.org/10.3390/molecules26010225>
5. **Anca Dumbrava**, Catalin Maxim, Rodica Olar, Mihaela Badea, Mariana Stefac, Maria Nicoleta Grecu, Marius Andruh, *One-dimensional coordination polymers constructed from copper(II) ions and chromato bridges: Synthesis, crystal structures and thermal analysis*, *Inorganica Chimica Acta* 509 (2020) 119663. <https://doi.org/10.1016/j.ica.2020.119663>
6. Cristian Matei, Daniela Berger, **Anca Dumbrava**, Marius Daniel Radu, Emma Gheorghe, *Calcium carbonate as silver carrier in composite materials obtained in green seaweed extract with topical applications*, *Journal of Sol-Gel Science and Technology* 93 (2020) 315–323. <https://doi.org/10.1007/s10971-019-05145-6>
7. **Anca Dumbrava**, D. Berger, C. Matei, G. Prodan, F. Aonofriesei, M.D. Radu, F. Moscalu, *New composite nanomaterials with antimicrobial and photocatalytic properties based on silver and zinc oxide*, *Journal of Inorganic and Organometallic Polymers and Materials* 29 (2019) 2072–2082. <https://doi.org/10.1007/s10904-019-01166-4>
8. **Anca Dumbrava**, Daniela Berger, Gabriel Prodan, Mihaela Badea, Rodica Olar, Florin Moscalu, Aurel Diacon, *A study on thermal degradation of zinc oxide nanopowders functionalized with anthocyanins, in correlation with their properties and applications*, *Applied Physics A: Materials Science and Processing* 124 (2018) 819. <https://doi.org/10.1007/s00339-018-2227-8>
9. **Anca Dumbrava**, Daniela Berger, Cristian Matei, Marius Daniel Radu, Emma Gheorghe, *Characterization and applications of a new composite material obtained by green synthesis, through deposition of zinc oxide onto calcium carbonate precipitated in green seaweeds extract*, *Ceramics International* 44 (2018) 4931-4936. <https://doi.org/10.1016/j.ceramint.2017.12.084>
10. **Anca Dumbrava**, Daniela Berger, Gabriel Prodan, Florin Moscalu and Aurel Diacon, *Considerations about the dependence of PEGylated ZnS nanoparticles properties on the synthesis method*, *Zeitschrift für Physikalische Chemie* 232 (2018) 61–77. <https://doi.org/10.1515/zpch-2017-0005>
11. G.S. Suliman, S. Birghila, **A. Dumbrava**. *Considerations about the use of lovage leaves to improve the quality of edible vegetable oils and oil blends*, *Scientific Study and Research-Chemistry and Chemical Engineering Biotechnology Food Industry* 19 (2018) 33-44. WOS: 000431353000004
12. Ionela Carazeanu Popovici, Georgeta Stroie, Georgeta Voicu, Florin Moscalu, Aurel Diacon, **Anca Dumbrava**, *A comparison between alkaline earth metal titanates for application as photocatalysts in wastewater treatment*, *Desalination and Water Treatment* 98 (2017) 115–122. <https://doi.org/10.5004/dwt.2017.21706>

13. **Anca Dumbrava**, Daniela Berger, Gabriel Prodan, Cristian Matei, Florin Moscalu, Aurel Diacon, *Influence of synthesis route on the structure and properties of zinc oxide nanoparticles functionalized with anthocyanins from raw vegetable extracts*, ECS Journal of Solid State Science and Technology 6 (2017), P870-P878. <https://doi.org/10.1149/2.0311712jss>
14. **Anca Dumbrava**, Daniela Berger, Gabriel Prodan, Cristian Matei, Florin Moscalu, Aurel Diacon, *The influence of Triton X-100 surfactant on the morphology and properties of zinc sulfide nanoparticles for applications in azo dyes degradation*, Materials Chemistry and Physics 193 (2017) 316-328. <https://doi.org/10.1016/j.matchemphys.2017.02.040>
15. S. Birghila, G. Baronescu, **A. Dumbrava**, *Seasonal variation and speciation of dissolved iron in an artificial surface water body*, Ovidius University Annals of Chemistry 28 (2) 43-48. <https://doi.org/10.1515/auoc-2017-0007>. WOS: 000431890000001
16. **Anca Dumbrava**, Daniela Berger, Gabriel Prodan, Florin Moscalu, Aurel Diacon, *Facile synthesis, characterization and application of functionalized cadmium sulfide nanopowders*, Materials Chemistry and Physics 173 (2016) 70 - 77. <https://doi.org/10.1016/j.matchemphys.2016.01.040>
17. **Anca Dumbrava**, Daniela Berger, Gabriel Prodan, Florin Moscalu, *Functionalized ZnO/CdS composites: synthesis, characterization and photocatalytic applications*, Chalcogenide Letters 13 (2016) 105 – 115. WOS: 000377185200003
18. **Anca Dumbrava**, Jeanina Lungu, Alexandru Ion, *Green seaweeds extract as co-sensitizer for dye sensitized solar cells*, Scientific Study & Research Chemistry & Chemical Engineering, Biotechnology, Food Industry 17 (2016) 013 – 025. WOS: 000376156700002
19. **Anca Dumbrava**, Gabriel Prodan, Adrian Georgescu, Florin Moscalu, *Dependence of ZnO-based dye-sensitized solar cell characteristics on the layer deposition method*, Bulletin of Materials Science 38 (2015) 1–8. <https://doi.org/10.1007/s12034-014-0793-8>
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21. **A. Dumbrava**, G. Prodan, D. Berger, M. Bica, *Properties of PEG-capped CdS nanopowders synthesized under very mild conditions*, Powder Technology 270 (2015) 197-204. <https://doi.org/10.1016/j.powtec.2014.10.012>
22. **A. Dumbrava**, S. Birghila, M. Munteanu, *Contributions on enhancing the copper uptake by using natural chelators, with applications in soil phytoremediation*, International Journal of Environmental Science and Technology 12 (2015) 929-938. <https://doi.org/10.1007/s13762-013-0467-x>
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26. C. I. Oprea, P. Panait, J. Lungu, D. Stamate, **A. Dumbravă**, F. Cimpoesu, M. A. Gîrțu, *DFT Study of Binding and Electron Transfer from a Metal-Free Dye with Carboxyl, Hydroxyl, and Sulfonic Anchors to a Titanium Dioxide Nanocluster*, International Journal of Photoenergy 2013 (2013) 893850. <https://doi.org/10.1155/2013/893850>
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28. C. I. Oprea, **A. Dumbrava**, I. Enache, A. Georgescu, M. A. Girtu, *A combined experimental and theoretical study of natural betalain pigments used in dye-sensitized solar cells*, Journal of Photochemistry and Photobiology A: Chemistry 240 (2012) 5– 13. <https://doi.org/10.1016/j.jphotochem.2012.05.003>
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34. C. I. Oprea, F. Moscalu, **A. Dumbravă**, S. Ioannou, A. Nicolaides, M. A. Gîrțu, *Optical and infrared properties of a series of pyramidalized olefin Pt-complexes - DFT study*, Journal of Optoelectronics and Advanced Materials 11 (2009) 1773 – 1778. WOS: 000273490400036
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38. Irina Enache, Semaghiul Birghila, **Anca Dumbrava**, *The Danube River water quality characteristics in the Braila Town*, Ovidius University Annals of Chemistry 20 (2009) 146 - 152.
39. **A. Dumbrava**, A. Georgescu, G. Damache, C. Badea, I. Enache, C. Oprea, M. A. Girtu, *Dye-sensitized solar cells based on nanocrystalline TiO<sub>2</sub> and natural pigments*, Journal of Optoelectronics and Advanced Materials 10 (2008) 2996 – 3002. WOS: 000261348200033
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#### **D - Lucrări publicate în volume cu referenți (neindexate)**

1. S. Birghila, I. Enache, **A. Dumbrava**, *Spectrophotometric determination of iron in soil samples by standard addition method*, Proceedings of the 10<sup>th</sup> International Symposium on Metal Elements in Environment, Medicine and Biology Timișoara 2010, pp. 107 - 110 (2010). ISSN 1583-4204
2. **A. Dumbrava**, S. Birghila, M. Belc, *A comparison between different extraction methods used for the determination of iron mobile forms*, Proceedings of the 10<sup>th</sup> International Symposium on Metal Elements in Environment, Medicine and Biology Timișoara 2010, pp. 131 - 134 (2010). ISSN 1583-4204
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#### **E – Brevete acordate în întreaga activitate**

N. Rasanu, **A. Dumbrava**, C. Albu, C. Maraloi, *Brevet de inventie numarul 99852/1987*  
- Coloranti disazoici cromatabili si procedeu de obtinere a acestora

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