

## LISTA LUCRĂRILOR PUBLICATE

Lect. Dr. Florin MOSCALU

### A - Teza de doctorat

A1. Contribuții la studiul coexistenței de fază feromagnet supraconductor, Universitatea din București, 2007.

### B - Cărți și capitole în cărți publicate în ultimii 20 ani

B1. Gh. Ciobanu, A. Mincu, **F. Moscalu**, *Mecanica cuantică*, Ovidius University Press, Constanța, 2005 (351 pagini), ISBN 973-614-173-X.

B2. **F. Moscalu**, *Fenomene și procese fizice în reactoare CANDU*, CNE Prod, 2007 (105 pagini)

### C - Lucrări cotate ISI

C1. 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*, Volume 49, Issue 6, 15 March 2023, Pages 10003-10013

C2. Atoumane Ndiaye, Dioum, Alle Dioum, Corneliu I. Oprea, Anca Dumbrava, Jeanina Lungu, Adrian Georgescu, **Florin Moscalu**, Mihai A. Girtu,; Aboubaker Chedikh Beye, Issakha Youm, *A Combined Experimental and Computational Study of Chrysanthemine as a Pigment for Dye-Sensitized Solar Cells*, *Molecules*, 26 (2021), art. no. 225, DOI: 10.3390/molecules26010225.

C3. Anca Dumbrava, Daniela Berger, Cristian Matei, gabriel Prodan, Florin Aonofriesei, Radu Marius Daniel, **Florin 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), p 2072-2082. DOI: 10.1007/s10904-019-01166-4.

C4. 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 – Material Science & Processing* 124 (2018) 819. DOI: 10.1007/s00339-018-2227-8.

C5. Anca Dumbrava, Daniela Berger, Gabriel Prodan, **Florin Moscalu**, Aurel Diacon, *Considerations about the dependence of PEGylated ZnS nanoparticles properties on the synthesis method*, "Zeitschrift für Physikalische Chemie - International journal of research in physical chemistry and chemical physics" 232 (2018) 61–77. Doi: 10.1515/zpch-2017-0005.

C6. 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. Doi: 10.1149/2.0311712jss

C7. 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. DOI: 10.5004/dwt.2017.21706

- C8. Anca Dumbrava, Daniela Berger, Gabriel Prodan, **Florin Moscalu**, Aurel Diacon. Facile synthesis, characterization and application of functionalized cadmium sulfide nanopowders, *Mater. Chem. Phys.* 173, 70 - 77, 2016. Doi:10.1016/j.matchemphys.2016.01.040
- C9. A. Dumbrava, D. Berger, G. Prodan, **F. Moscalu**. “Functionalized ZnO/CdS composites: synthesis, characterization and photocatalytic applications”, *Chalcogenide Letters* 13 (3), 105 – 115, 2016
- C10. Anca Dumbrava, Gabriel Prodan, Adrian Georgescu, **Florin Moscalu**, Dependence of ZnO-based dye-sensitized solar cell characteristics on the layer deposition method, *Bull. Mater. Sci.* 38 (1), pp. 1–8 (2015). Doi:10.1007/s12034-014-0793-8
- C11. A. Dumbrava, G. Prodan, **F. Moscalu**. Investigations on the influence of surfactant in morphology and optical properties of zinc oxide nanopowders for dye-sensitized solar cells applications, *Materials Science in Semiconductor Processing* 16, pp. 1095–1104 (2013). Doi: 10.1016/j.mssp.2013.03.007
- C12. Corneliu I. Oprea, Anca Dumbrava, Irina Enache, Jeanina Lungu, Adrian Georgescu, **Florin Moscalu**, Camelia Oprea and Mihai A. Girtu. Role of energy level alignment in solar cells sensitized with a metal-free organic dye: A combined experimental and theoretical approach, *Phys. Status Solidi A* 208 (10), pp. 2467–2477 (2011). Doi: 10.1002/pssa.201127083
- C13. C. I. Oprea, **F. Moscalu**, A. Dumbrava, S. Ioannou, A. Nicolaidis, M. A. Girtu. DFT study of the optical and vibration spectra of a series of platinum-olefin complexes, *Romanian Journal of Physics*, 56 (1-2), pp. 125 – 133 (2011).
- C14. C. I. Oprea, **F. Moscalu**, A. Dumbravă, S. Ioannou, A. Nicolaidis, M. A. Gîrțu. Optical and infrared properties of a series of pyramidalized olefin Pt-complexes - DFT study, *Journal of Optoelectronics and Advanced Materials* 11 (11), pp. 1773 – 1778 (2009).
- C15. C. I. Oprea, A. Dumbrava, **F. Moscalu**, A. Nicolaidis, M. A. Girtu. DFT Study of Optical Properties of Pt-based Complexes, *AIP Conference Proceedings* 1203, 7<sup>th</sup> International Conference of the Balkan Physical Union, Alexandroupolis, Greece, 9-13 September 2009, pp. 1198 – 1203 (2009).
- C16. **F. Moscalu**, *On the Phase Coexistence of Band Ferromagnetism and Singlet Superconductivity*, *Journal of Optoelectronics and Advanced Materials*, Vol. 8, No. 5, p.1851 (4pg.), 2006.
- C17. G. Ciobanu, **F. Moscalu**, *The Free Energy Functional for a Spin Singlet Ferromagnetic Superconductor*, *Journal of Optoelectronics and Advanced Materials*, Vol. 8, No. 6, p. 2139 (4pg.), 2006

#### D.- Lucrări publicate în ultimii XX ani în reviste și volume de conferințe cu referenți (neindexate)

- D1. C.I. Oprea, B. Frecuș, **F. Moscalu** and M.A. Gîrțu, *Ab initio study of electron acceptor molecules for organic electronics and molecular magnetism*, *Proceedings of the Nano-Sol-Net International Symposium “Trends in Organic Electronics and Hybrid Photovoltaics,”* M.A. Gîrțu and M. Fahlman, eds., Ovidius University Press, Constanța, Romania, 2008, pp. 69-75, (ISBN 978-973-614-414-1).

12.10.2023

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