

Publications

2024

Angelescu D.G., Ionita G., Evaluation of All-Atom and Martini 3 Coarse-Grained Force Fields from the Structural Investigation of Nitroxide Spin Probes and Their Confinement in Beta-Cyclodextrin, *J. Phys. Chem. B*, 2024, 128 (47), 11784 - 11799, IF = 2.8

Angelescu D.G., Molecular modeling of the carbohydrate corona formation on a polyvinyl chloride nanoparticle and its impact on the adhesion to lipid bilayers, *J. Chem. Phys.*, 2024, 160 (14), art. no. 144901, IF = 3.1

Gaidau C., Râpă M., Ionita G., Stanculescu I.R., Zaharescu T., Constantinescu R.-R., Lazea-Stoyanova A., Stanca M., The Influence of Gamma Radiation on Different Gelatin Nanofibers and Gelatins, *Gels*, 2024, 10 (4), art. no. 226, IF = 5.0

Pricop L., Ionita G., Stanica N., Enachescu C., Tanasa R., Ferbinteanu M., Synthesis and characterization of two Cu(II) complexes with nicotinamide, oxalate, and nitrate as mixed ligands, *J. Coord. Chem.*, 2024, 77 (20-21), 2337 - 2348, IF = 2.2

Tablet C., Matei I., Ionescu S., Hillebrand M., EXPERIMENTAL AND THEORETICAL ECD STUDY OF THE 7-METHOXYCOUMARIN-3-CARBOXYLIC ACID BINDING TO BSA, *Rev. Roum. Chim.*, 2024, 69 (5-6), 247 - 253, IF = 0.5

Precupas A., Popa V.T., Impact of Sinapic Acid on Bovine Serum Albumin Thermal Stability, (2024) International Journal of Molecular Sciences, 25 (2), art. no. 936, IF = 4.9.

Precupas A., Gheorghe D., Leonties A.R., Popa V.T., Resveratrol Effect on α -Lactalbumin Thermal Stability, *Biomedicines*, 2024, 12 (10), art. no. 2176, IF = 3.9.

Burloiu A.M., Mihai D.P., Manda G., Lupuliasa D., Neagoe I.V., Socoteanu R.P., Surcel M., Anghelache L.-I., Olariu L., Gîrd C.E., Boscencu R., In Silico and In Vitro Studies on an Asymmetrical Porphyrin Derivative with Therapeutic Potential in Skin Disorders, *Pharmaceuticals*, 2024, 17 (6), art. no. 688, IF = 4.3

Precupas A., Popa V.T., Insight into protein-ligand interaction: The effect on protein aggregation, () *Advances in Chemistry Research*, 2024, 289 - 340

Burloiu A.M., Ozon E.A., Musuc A.M., Anastasescu M., Socoteanu R.P., Atkinson I., Culita D.C., Anuta V., Popescu I.A., Lupuliasa D., Mihai D.P., Gîrd C.E., Boscencu R., Porphyrin Photosensitizers into Polysaccharide-Based Biopolymer Hydrogels for Topical Photodynamic Therapy: Physicochemical and Pharmacotechnical Assessments, *Gels*, 2024, 10 (8), art. no. 499, IF = 5.0

Burloiu A.M., Manda G., Lupuliasa D., Socoteanu R.P., Mihai D.P., Neagoe I.V., Anghelache L.-I., Surcel M., Anastasescu M., Olariu L., Gîrd C.E., Barbuceanu S.F., Ferreira L.F.V., Boscencu R., Assessment of Some Unsymmetrical Porphyrins as Promising Molecules for Photodynamic Therapy of Cutaneous Disorders, *Pharmaceuticals*, 2024, 17 (1), art. no. 62, IF = 4.3

Todan L., Voicescu M., Culita D.C., Atkinson I., Soare E.M., Ioniță S., Radu D., Layered double hydroxides matrix as host for curcumin loading: structural and spectroscopic investigations, *Chemical Papers*, 2024, 78 (9), 5485 – 5500, IF = 2.1

Atkinson I., Seciu-Grama A.-M., Serafim A., Petrescu S., Voicescu M., Anghel E.M., Marinescu C., Mitran R.A., Mocioiu O.C., Cusu J.P., Lincu D., Prelipcean A.-M., Craciunescu O., Bioinspired 3D scaffolds with antimicrobial, drug delivery, and osteogenic functions for bone regeneration, *Drug Delivery and Translational Research*, 2024, 14 (4), 1028 – 1047, IF = 5.7

2023

Visan R.M., Leonties A.R., Anastasescu M., Angelescu D.G., Towards understanding the interaction of quercetin with chitosan-phytate complex: An experimental and computational investigation, *J. Mol. Liq.*, 2023, 380, art. no. 121673, IF = 5.3

Visan R.M., Angelescu D.G., Coarse-Grained Model of Phytic Acid for Predicting the Supramolecular Architecture of Ionically Cross-Linked Chitosan Hydrogels, *J. Phys. Chem. B*, 2023, 127 (25), 5718 - 5729, IF = 2.8

Joly J.-P., Aricov L., Balan G.-A., Popescu E.I., Mocanu S., Leonties A.R., Matei I., Marque S.R.A., Ionita G., Formation of Alginate/Chitosan Interpenetrated Networks Revealed by EPR Spectroscopy, *Gels*, 2023, 9 (3), art. no. 231, IF = 5.0

Leontieș A.R., Băran A., Ioniță G., Matei I., Mocanu S., Baratoiu R., Hristea E., Aricov L., Physicochemical Changes of Alginate and Polyacrylate Mixture Induced by Interactions of the Appended Units, *Macromolecular Chemistry and Physics*, 2023, 224 (8), art. no. 2200444, IF = 2.5.

Aricov L., Precupas A., Tudose M., Baltag D., Trică B., Sandu R., Leonties A.R., *Trametes versicolor* laccase activity modulated by the interaction with gold nanoparticles, *Environmental Research*, 2023, 237, art. no. 116920, IF = 8.9.

Cimpoeșu F., Buta M.-C., Toader A.M., Ionita G., The Spin Chemistry of Nitroxide-Based Organic Biradicals: EPR Data and Computational Experiments, *Fundamental and Biomedical Aspects of Redox Processes*, 2023, 111 – 142.

Irodia R., Mîndroiu M., Bîru I., Ioniță G., Mihai G.V., Enăchescu M., Orbeci C., Pîrvu C., Double S-Scheme Polydopamine/TiO₂/Chlorophyll as Stable and Efficient Green Photoelectrocatalyst, *ChemElectroChem*, 2023, 10 (24), art. no. e202300277, IF = 3.5

Stanca M., Gaidau C., Zaharescu T., Balan G.-A., Matei I., Precupas A., Leonties A.R., Ionita G., Physico-Chemical Changes Induced by Gamma Irradiation on Some Structural Protein Extracts, *Biomolecules*, 2023, 13 (5), art. no. 774, IF = 4.8

Mischie A., Toader A.M., Buta M.C., Cimpoeșu F., Harmonic oscillator model of aromaticity (HOMA) in conjugated radicals and cations, (2023) Computational and Theoretical Chemistry, 1230, art. no. 114370.,

Cimpoesu F., Buta M.-C., Toader A.M., Ionita G., The Spin Chemistry of Nitroxide-Based Organic Biradicals: EPR Data and Computational Experiments, (2023) Fundamental and Biomedical Aspects of Redox Processes, pp. 111 - 142, Cited 0 times.

Toader A.M., Frecus B., Oprea C.I., Buta M.C., Assessing Quantum Calculation Methods for the Account of Ligand Field in Lanthanide Compounds, (2023) Physchem, 3 (2), pp. 270 - 289, Cited 1 times.

Boscencu R., Manda G., Vasiliu G., Socoteanu R., Lupuleasa D., Burloiu A.M., Neagoe I.V., Olariu L., Preliminary In Vitro Evaluation of Some Porphyrins Using Human Breast Tumor Cells, (2023) Letters in Drug Design and Discovery, 20 (8), pp. 1040 - 1045, Cited 0 times.

Boscencu R., Radulea N., Manda G., Machado I.F., Socoteanu R.P., Lupuliasa D., Burloiu A.M., Mihai D.P., Ferreira L.F.V., Porphyrin Macrocycles: General Properties and Theranostic Potential, (2023) Molecules, 28 (3), art. no. 1149, Cited 13 times.

Mihai D.P., Boscencu R., Manda G., Burloiu A.M., Vasiliu G., Neagoe I.V., Socoteanu R.P., Lupuliasa D., Interaction of Some Asymmetrical Porphyrins with U937 Cell Membranes–In Vitro and In Silico Studies, (2023) Molecules, 28 (4), art. no. 1640, Cited 5 times.

Balan G.-A., Precupas A., Matei I., Gelation Behaviour of Pluronic F127/Polysaccharide Systems Revealed via Thioflavin T Fluorescence, (2023) Gels, 9 (12), art. no. 939, Cited 2 times.

Mureseanu M., Filip M., Bleotu I., Spinu C.I., Marin A.H., Matei I., Parvulescu V., Cu(II) and Mn(II) Anchored on Functionalized Mesoporous Silica with Schiff Bases: Effects of Supports and Metal–Ligand Interactions on Catalytic Activity, (2023) Nanomaterials, 13 (12), art. no. 1884, Cited 4 times.

2022

Matei I., Ariciu A.-M., Popescu E.I., Mocanu S., Neculae A.V.F., Savonea F., Ionita G., Evaluation of the Accessibility of Molecules in Hydrogels Using a Scale of Spin Probes, (2022) Gels, 8 (7), art. no. 428,

Constantin M.M., Corbu C.G., Mocanu S., Popescu E.I., Micutz M., Staicu T., Șomoghi R., Trică B., Popa V.T., Precupas A., Matei I., Ionita G., Model systems for evidencing the mediator role of riboflavin in the UVA cross-linking treatment of keratoconus, (2022) Molecules, 27 (1), art. no. 190, Cited 3 times.

Răducă M., Martins D.O.T.A., Spinu C.A., Hillebrand M., Tuna F., Ionita G., Mădălan A.M., Lecourt C., Sutter J.-P., Andruh M., A New Nitronyl-Nitroxide Ligand for Designing Binuclear LnIII Complexes: Syntheses, Crystal Structures, Magnetic and EPR Studies, (2022) European Journal of Inorganic Chemistry, 2022 (16), art. no. e202200128,

Bala D., Matei I., Ionita G., Cosma D.-V., Rosu M.-C., Stanca M., Gaidau C., Baleanu M., Virgolici M., Stanculescu I., Luminescence, Paramagnetic, and Electrochemical Properties of Copper Oxides-Decorated TiO₂/Graphene Oxide Nanocomposites, (2022) International Journal of Molecular Sciences, 23 (23), art. no. 14703,

- Chiulan I., Panaitescu D.M., Serafim A., Radu E.R., Ioniță G., Rădițoiu V., Gabor A.R., Nicolae C.-A., Ghirea M., Baciu D.D., Sponges from Plasma Treated Cellulose Nanofibers Grafted with Poly(ethylene glycol)methyl Ether Methacrylate, (2022) Polymers, 14 (21), art. no. 4720, Cited 6 times.**
- Neculae A.V.F., Audran G., Bourdillon S., Ionita G., Joly J.P., Marque S.R.A., Matei I., Mocanu S., Conformational changes in β -phosphorylated nitroxides – A powerful tool to probe host–guest interactions, (2022) Journal of Molecular Liquids, 364, art. no. 119983,**
- Toader A.M., Buta M.C., Mischie A., Putz M.V., Cimpoesu F., The density functional theory account of interplaying long-range exchange and dispersion effects in supramolecular assemblies of aromatic hydrocarbons with spin, (2022) Molecules, 27 (1), art. no. 45, Cited 3 times.**
- Matei I., Culita D.C., Tecuceanu V., Hanganu A., Ionita P., N,N-Bis(7-nitrobenz[c][1,2,5]oxadiazol-4-yl)cystamine, (2022) MolBank, 2022 (3), art. no. M1423, Cited 2 times.**
- Aricov L., Raducan A., Gifu I.C., Alexandrescu E., Precupas A., Neculae A.V.F., Visan R.M., Morosan A., Leonties A.R., The Immobilization of Laccase on Mixed Polymeric Microspheres for Methyl Red Decomposition, (2022) Coatings, 12 (12), art. no. 1965, Cited 6 times.**
- Bala D., Matei I., Ionita G., Cosma D.-V., Rosu M.-C., Stanca M., Gaidau C., Baleanu M., Virgolici M., Stanculescu I., Luminescence, Paramagnetic, and Electrochemical Properties of Copper Oxides-Decorated TiO₂/Graphene Oxide Nanocomposites, Int. J. Mol. Sciences, 2022, 23 (23), art. no. 14703, IF = 4.9**
- Bujor A., Matei I., Culita D.C., Hanganu A., Tecuceanu V., Ionita P., LINEAR AND CYCLIC ETHYLENE-GLYCOLS LABELLED WITH NITROBENZOFURAZAN MOTIFS, (2022) Revue Roumaine de Chimie, 67 (8-9), pp. 467 - 471, Cited 1 times.**
- Voicescu M., On the role of pH and temperature on ground – and excited – state proton transfer of hydroxyflavones in lipidic bilayers of lecithin, (2022) Journal of Molecular Liquids, 352, art. no. 118696**
- Bala D., Jinga L.-I., Popa M., Hanganu A., Voicescu M., Bleotu C., Tarko L., Nica S., Design, Synthesis, and Biological Evaluation of New Azulene-Containing Chalcones, (2022) Materials, 15 (5), art. no. 1629**
- Zaharie M.-G.O., Radu N., Pirvu L., Bostan M., Voicescu M., Begea M., Constantin M., Voaides C., Babeanu N., Roman V., Studies Regarding the Pharmaceutical Potential of Derivative Products from Plantain, (2022) Plants, 11 (14), art. no. 1827**
- Todan L., Voicescu M., Culita D.C., Lincu D., Ion R.M., Călin M., Răut I., Kuncser A.C., A curcumin-loaded silica carrier with NH₃ sensitivity and antimicrobial properties, (2022) Chemical Papers, 76 (5), pp. 3087 - 3096**
- Voicescu M., Craciunescu O., Calderon-Moreno J.M., Anastasescu M., Manoiu V.S., Tatia R., Culita D.C., Moldovan L., Fluorescent Flavin/PVP-Coated Silver Nanoparticles: Design and Biological Performance, (2022) Journal of Fluorescence, 32 (4), pp. 1309 – 1319**
- Atkinson I., Seciu-Grama A.M., Petrescu S., Culita D., Mocioiu O.C., Voicescu M., Mitran R.-A., Lincu D., Prelipcean A.-M., Craciunescu O., Cerium-Containing Mesoporous Bioactive Glasses (MBGs)-Derived Scaffolds with Drug Delivery Capability for Potential Tissue Engineering Applications, (2022) Pharmaceutics, 14 (6), art. no. 1169**

Precupas A., Ruxandra Leonties A., Neacsu A., George Angelescu D., Tudor Popa V., Bovine hemoglobin thermal stability in the presence of naringenin: Calorimetric, spectroscopic and molecular modeling studies, (2022) Journal of Molecular Liquids, 361, art. no. 119617, Cited 12 times.

2021

Popescu, E.I., Aricov, L., Mocanu, S., Matei, I., Hristea, E., Baratoiu, R., Leonties, A., Petcu, C., Alexandrescu, E., Ionita, G., Subtle influence on alginate gel properties through host–guest interactions between covalently appended cyclodextrin and adamantane units, New Journal of Chemistry, 45, 2021, 8083-8091, IF 3.591.

Spinu, C.A., Pichon, C., Ionita, G., Mocanu, T., Calancea, S., Raduca, M., Sutter, J.-P., Hillebrand, M., Andruh, M., Synthesis, crystal structure, magnetic, spectroscopic, and theoretical investigations of two new nitronyl-nitroxide complexes, Journal of Coordination Chemistry, 74, 2021, 279-293, IF 1.751.

Chiriac, ER, Chitescu, CL, Geana, EI, Gird, CE, Socoteanu, RP, Boscencu, R, Advanced Analytical Approaches for the Analysis of Polyphenols in Plants Matrices-A Review, SEPARATIONS, 8, 2021, 65, IF 2.777.

Socoteanu, RP, Boscencu, R, Manda, G, Anastasescu, M, Neagoe, IV, Machado, IF, Dinca, O, Bucur, A, Ferreira, LFV, Morphologic evaluation of some promising A3B porphyrinic type compounds designed for theranostic applications in cancer, CHEMICAL PHYSICS, 544, 2021, 111115, IF 2.348.

Voicescu, M., Craciunescu, O., Angelescu, D.G., Tatia, R., Moldovan, L., Spectroscopic, molecular dynamics simulation and biological studies of Flavin MonoNucleotide and Flavin Adenine Dinucleotide in biomimetic systems, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 246, 2021, 118997, IF 4.098.

Precupas, A., Sandu, R., Neculae, A. V. F., Neacsu, A., Popa, V.T., Calorimetric, spectroscopic and computational investigation of morin binding effect on bovine serum albumin stability, J. Mol. Liq., 333, 2021, 115953, IF 6.165.

Jeliazkova, N., Apostolova, M.D., Andreoli, C., Barone, F., Barrick, A., Battistelli, C., Bossa, C., Botea-Petcu, A., Chatel, A., De Angelis, I., Dusinska, M., El Yamani, N., Gheorghe, D., Giusti, A., Gomez-Fernandez, P., Grafstrom, R., Gromelski, M., Jacobsen, N.R., Jeliazkov, V., Jensen, K.A., Kochev, N., Kohonen, P., Manier, N., Mariussen, E., Mech, A., Navas, J.M. Paskaleva, V., Precupas, A., Puzyn, T., Rasmussen, K., Ritchie, P., Llopis, I.R., Runden-Pran, E., Sandu, R., Shandilya, N., Tanasescu, S., Haase, A., Nymark, P., Towards FAIR nanosafety data, Nat. Nanotechnol., 16, 2021, 644-654, IF 39.213.

Tudose, M., Baratoiu-Carpen, R.D., Anghel, E.M., Voicescu, M., Somacescu, S., Culita, D.C., Hanganu, A., Kuncser, A., Radoi, A., A novel composite based on pyrene thiazole grafted on graphene oxide: physico-chemical characterization and electrochemical investigations, MATERIALS CHEMISTRY AND PHYSICS, 262, 2021, 124315, IF 4.094.

Tudose, M., Anghel, E.M., Hristea, E.N., Voicescu, M., Somacescu, S., Culita, D.C., Musuc, A.M., Dumitrascu, F., Hangau, A., Kuncser, A., Zorila, F.L., Alexandru, M., Acasandrei, M.A., Savu, D.I., Benzofurazan derivatives modified graphene oxide nanocomposite: Physico-chemical characterization and interaction with bacterial and tumoral cells, MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, 123, 2021, 112028, IF 7.328.

Todan, L., Voicescu, M., Culita, D.C., Pandele-Cusu, J., Albu, C., Kuncser, A.C., Ecological formulation for improving resveratrol stability and release in aqueous environment, CHEMICAL PAPERS, 75, 5, 2021, 2033-2041, IF 2.097.

2020

Mocanu, S., Ionita, G., Matei, I., Solvatochromic characteristics of dansyl molecular probes bearing alkyl diamine chains, Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 237, 2020, art. no. 118413, IF 4.098.

Ionita, G., Mocanu, S., Matei, I., Conformational preferences of TEMPO type radicals in complexes with cyclodextrins revealed by a combination of EPR spectroscopy, induced circular dichroism and molecular modeling, Physical Chemistry Chemical Physics, 22 (21), 2020, 12154-12165, IF 3.676.

Ferreira, L.F.V., Machado, I.F., Gama, A., Lochte, F., Socoteanu, R.P., Boscencu, R., Surface photochemical studies of nano-hybrids of A(3)B porphyrins and Fe₃O₄ silica-coated nanoparticles, JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, 387, 2020, 112152, IF 4.291

Angelescu, D.G., Structural behavior of amphiphilic polyion complexes interacting with saturated lipid membranes investigated by coarse-grained molecular dynamic simulations, RSC Advances, 10, 2020, 39204, IF 3.361.

Ionescu, A., Stîngă, G., Maxim, M.E., Gosecka, M., Basinska, T., Slomkowski, S., Angelescu, D., Petrescu, S., Stănică, N., Băran, A., Anghel, D.F., Chitosan-polyglycidol complexes to coating iron oxide particles for dye adsorption, Carbohydrate Polymers, 246, 2020, 116571, IF 9.381.

Aricov, L., Angelescu, D.G., Băran, A., Leontieş, A.R., Popa, V.T., Precupaş, A., Sandu, R., Stîngă, G., Anghel, D.F., Interaction of piroxicam with bovine serum albumin investigated by spectroscopic, calorimetric and computational molecular methods, Journal of Biomolecular Structure and Dynamics, 38, 2020, 2659-2671.

Precupas, A., Gheorghe, D., Botea-Petcu, A., Leonties, A. R., Sandu, R., Popa, V.T., Mariussen, E., Naouale, E., Pran, E. R., Dumit, V., Xue, Y., Cimpan, M. R., Dusinska, M., Haase and A., Tanasescu, S., Thermodynamic parameters at bio-nano interface and nanomaterial toxicity: A case study on BSA interaction with ZnO, SiO₂ and TiO₂, Chem. Res. Toxicol., 33, 8, 2020, 2054-2071. IF 3.739.

Precupas, A., Popa, V.T., Microcalorimetric investigation of ligand binding to BSA and its influence on the protein stability in Bovine Serum Albumin. Properties and Applications, Nova Science Publisher, 2020, 157–197.

Tănăsescu, S., Gheorghe, D., Precupas, A., Botea-Petcu, A., Sandu, R., Popa, V.T., Thermodynamic descriptors of the interaction at the bio/nano interface in: Nanomaterials - functional properties and applications, vol. 28, Series Micro- and nanoengineering, Romanian Academy Publishing House, 2020, 85–97.