

Lista de lucrări:

I. Lista celor maximum 10 lucrări considerate a fi cele mai relevante pentru domeniul disciplinelor postului:

[1] Iuliana-Cornelia Poplăcean, Marieta Mureșan-Pop, Mihai Vasilescu, **Andrea Simion**, Simion Simon, Synthesis and structural characterization of new chitosan-thiamine hydrochloride molecular complexes, J. Mol. Struct. 1321 (2025) 140094, <https://doi.org/10.1016/j.molstruc.2024.140094>

[2] Xenia Filip, **Andrea Simion**, Ioana-Georgeta Grosu, Ana-Maria Raluca Gherman, Claudia Lar, Claudiu Filip, Structural comparison between polydopamine precipitate and thin coating layers, down to nanometer film thicknesses, Appl. Surf. Sci. 649 (2024) 159190, <https://doi.org/10.1016/j.apsusc.2023.159190>

[3] Cristina Dehelean, Ersilia Alexa, Iasmina Marcovici, Andrada Iftode, Geza Lazar, **Andrea Simion**, Vasile Chis, Adrian Pirnau, Simona Cinta Pinzaru, Estera Boeriu, Synthesis, characterization, and in vitro-in ovo toxicological screening of silibinin fatty acids conjugates as prodrugs with potential biomedical applications, Biomol. Biomed. 24 (2024) 1735-1750, <https://doi.org/10.17305/bb.2024.10600>

[4] **Andrea Simion**, Matthias Ernst, Claudiu Filip, The effect of 1H offset and flip-angle on heteronuclear decoupling efficiency in ROSSPAC pulsed sequence: A Floquet description, J. Chem. Phys. 21 (2023) 154113, <https://doi.org/10.1063/5.0148400>

[5] **Andrea Simion**, Simion Simon, Claudiu Filip, Marieta Mureșan-Pop, Adriana Vulpoi, Dina M. Petrișor, Grigore Damian, Mihai Vasilescu, Milica Todea, Local structural effects of Gd³⁺ ions incorporation in shell of nanostructured silica core – alumina rich shell microspheres, J. Mol. Struct. 1284 (2023) 135381, <https://doi.org/10.1016/j.molstruc.2023.135381>

[6] **Andrea Simion**, Tobias Schubeis, Tanguy Le Marchand, Mihai Vasilescu, Guido Pintacuda, Anne Lesage, and Claudiu Filip, Heteronuclear decoupling with Rotor-Synchronized Phase-Alternated Cycle, J. Chem. Phys. 157 (2022) 014202, <https://doi.org/10.1063/5.0098135>

[7] Alexandru S. Farcasanu, Milica Todea, Marieta Muresan-Pop, Dina M. Petrisor, **Andrea Simion**, Adriana Vulpoi, and Simion Simon, Synthesis and structural characterization of silica particles doped with Dy and Gd paramagnetic ions as MRI contrast agents, Results Chem. 4 (2022) 100520, <https://doi.org/10.1016/j.rechem.2022.100520>

[8] **Andrea Simion**, Mihai Vasilescu, Claudiu Filip, Milica Todea, Marieta Mureșan-Pop, Simion Simon, Structural characterization of interfaces in silica core – alumina shell by solid-state NMR spectroscopy, Solid State Nucl. Magn. Reson. 117 (2022) 101773, <https://doi.org/10.1016/j.ssnmr.2022.101773>

[9] **Andrea Simion**, Adrian Pîrnău, Flaviu R.V. Turcu, Adriana Vulpoi, Milica Todea, Monica Potara, Mihai Vasilescu, Stratified Diffusion of HOD-D₂O inside COOH- and NH₂- Functionalized Multi-Walled Carbon Nanotubes studied by NMR Spectroscopy, J. Mol. Struct. 1249 (2022) 131653, <https://doi.org/10.1016/j.molstruc.2021.131653>

[10] Marieta Muresan-Pop, Adriana Vulpoi, Viorica Simon, Milica Todea, Klara Magyari, Zsolt Pap, **Andrea Simion**, Claudiu Filip, Simion Simon, Co-crystals of Etravirine by Mechanochemical activation, J. Pharm. Sci. 111 (2021) 1178-1186, <https://doi.org/10.1016/J.XPHS.2021.09.023>

II. Alte lucrări și contribuții științifice:

II.1 Articole științifice:

[1] Milica Todea, Viorica Simon, Marieta Muresan-Pop, Adriana Vulpoi, Mihai M. Rusu, **Andrea Simion**, Mihai Vasilescu, Grigore Damian, Dina M. Petrisor, Simion Simon, Silica-based microspheres with aluminum-iron oxide shell for diagnosis and cancer treatment, J. Mol. Struct. 1246 (2021) 131149, <https://doi.org/10.1016/j.molstruc.2021.131149>

II.2 Conferințe științifice:

[1] From polydopamine precipitate to nanometer coating layers – a structural comparison using solid-state NMR spectroscopy, Prezentare de poster, **A. Simion**, M. Ernst and C. Filip, The 20th European Magnetic Resonance Congress 30 Iunie - 4 Iulie 2024, Bilbao, Spania

[2] Innovative Hydrogels from Hyaluronic Acid Dopamine Conjugates: Structural, Thermal and Mechanical Properties, Prezentare de poster, I. G. Grosu, A. Pirnau, I. T. Varga-Kocsis, X. Filip, A. M. R. Gherman, I. E. Kacso, **A. Simion**, F. A. Martin, C. Filip, analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences IC-ANMBES 2024, 17-20 Septembrie 2024, Brasov, România

[3] Heteronuclear decoupling sequences for fast MAS NMR – from theory to applications Prezentare orală, **A. Simion**, M. Ernst and C. Filip, The Central European NMR Symposium & Bruker Users Meeting, Solid-State NMR Workshop (CEUM), 13-15 Septembrie 2023, Praga, Republica Ceha

[4] Heteronuclear decoupling for fast MAS NMR: robustness toward 1H offset, RF field irradiation and RF field inhomogeneity, Prezentare de poster, **A. Simion**, M. Ernst and C. Filip, The 19th European Magnetic Resonance Congress 09 - 13 July 2023, Glasgow, Scotia

[5] Cross-polarization under fast MAS NMR: from spin dynamics to experimental methods Prezentare de poster, **A. Simion**, C. Filip, PIM 2023 International Conference, 19-22 Septembrie 2023, Cluj-Napoca, România

[6] Heteronuclear decoupling for ultra-fast MAS: Robustness toward 1H offset and radio-frequency power, Prezentare de poster, **A. Simion**, M. Ernst, and C. Filip, Zakopane Ampere NMR School, 19-25 Iunie 2022, Zakopane, Polonia

[7] Structural changes in nanostructured silica core-alumina shell microspheres doped with iron and gadolinium investigated by Solid- State NMR Spectroscopy Prezentare de poster, **A. Simion**, M. Vasilescu, M. Todea, M. Mureșan- Pop, A. Vulpoi, S. Simon, PIM 2021 International Conference, 22-24 Septembrie 2021, Cluj-Napoca, România

[8] Structural effects induced by gadolinium ions in aluminosilicate coreshell structures studied by Solid-State NMR and EPR spectroscopies, Prezentare de poster, **A. Simion**, C. Filip, D. M. Petrișor, M.Todea, M. Vasilescu, S. Simon, Zakopane Ampere NMR School, 21-23 Iunie 2021, Zakopane, Polonia

[9] Analysis of the influence of carbon nanotube's purity on their transport properties using NMR spectroscopy, Prezentare orală, **A. Simion**, Secțiunea "Advanced Applied Physics", Sesiune de Comunicări Științifice organizată de Univeristatea Tehnică din București, 19 Mai 2019, București, România

[10] Use of NMR spectroscopy to determine the diffusion coefficients of solutions with carbon nanotubes, Prezentare orală, **A. Simion**, Concursul Național de Fizică "Dragomir Hurmuzescu" - Sesiune de Comunicări Științifice organizată de Universitatea de Vest din Tmișoara, Aprilie 2019, Timișoara, România

Data: 04.12.2024