***ANEXA 4.1***

Nume Prenume: **Gaina Ioana Luiza**

Gradul didactic: Conferentiar

Instituția unde este titular: Universitatea Babeș-Bolyai

Facultatea: Facultatea de Chimie si Inginerie Chimica

Departamentul: Chimie

**LISTA**

**lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic**

1. **Teza de doctorat**

„Sinteza de noi derivati fenotiazinici precursori in sinteza de materiale cu proprietati fizice neconventionale” sustinuta in 2001

**2. Teza de abilitare**

Heterocyclic compounds; Green synthetic approaches, biomedical and nanomaterials applications

**3. Cărţi si capitole în cărţi publicate în ultimii 10 ani**

Nu

**4. Lucrări indexate ISI/BDI publicate în ultimii 10 ani :** 44 lucrari indexate wos

1. Stefan Richter, Peter Lönnecke, Dijana Bovan, Nicoleta Andrian, Bianca Stoean, Maria Lehene, Radu Silaghi-Dumitrescu, **Luiza Gaina**, Sanja Mijatović, Danijela Maksimović-Ivanić, Goran N. Kaluđerović, Evamarie Hey-Hawkins. Platinum(II/IV) complexes with N-substituted carboxylate ethylenediamine / propylenediamine ligands: preparation, characterization and in vitro activity. Dalton Trans. 2025. <https://doi.org/10.1039/D4DT03041A> IF 3.5 cit 0

2. A. Majdoub, M. Majdoub, **L. Gaina**, F. Khalil, H. Zaitan. Cotton fabric coated with graphene oxide nanosheets and CuO nanoparticles as a “dip catalyst” for the photocatalytic degradation of dyes. Colloids and Surfaces A: Physicochemical and Engineering Aspects 705 (2025) 135670. [https://doi.org/10.1016/j.colsurfa.2024.135670](https://doi.org/10.1016/j.colsurfa.2024.135670%20%20%20%20IF%204.9)  cit 0 IF 4.9

3. A. Grozav\*, T. Cheminel, A. Jurj, O. Zanoaga, L. Ruduly, C. Braicu, I. Berindean-Neagoie, O. Crisan, **L. Gaina\***, B. Therrien\*. Arene Ruthenium Complexes Specifically Inducing Apoptosis in Breast Cancer Cells. Inorganics 2024, 12(11), 287, <https://doi.org/10.3390/inorganics12110287> IF 3.1 cit 0

4. B. Brem, B. Stoean (Vasile), E. Molnar, E. Fischer-Fodor, O. Balacescu, R. Borlan, M. Focsan, A. Grozav, P. Achimas-Cadariu, E. Gal\*, **L. Gaina**\*. Meso-substituted AB3-type phenothiazinyl-porphyrins and their indium and zinc complexes photosensitizing properties, cytotoxicity and phototoxicity on ovarian cancer cells. RSC Med. Chem., 2024, <https://doi.org/10.1039/D4MD00601A> IF 4.1

5. M. Gal, **L. Gaina**, T. Lovasz, E. Gal, AM. Craciun, M. Focsan, A. Turza, D. Rugina, D A.M.V. Brânzanic, S. Pesek, R. Silaghi-Dumitrescu, C. Cristea. Sonochemical synthesis, optical properties and DFT studies on novel (N-arylamino)phenothiazinium dyes suitable for fluorescence cells imaging. Spectrochimica Acta part A-Molecular and Biomolecular Spectroscopy, 2024, 322, 124768. DOI10.1016/j.saa.2024.124768. IF 4.3 cit 2

6. B. Stoean, M. Lehene, C. Zagrean-Tuza, R. Silaghi-Dumitrescu, C. Cristea, **L. Gaina**\*.

Transient radical species and oxygen colorimetric indicators grounded on phenothiazinium dyes. Spectrochimica Acta part A-Molecular and Biomolecular Spectroscopy, 2024, 320, 124602. DOI 10.1016/j.saa.2024.124602 IF 4.3 cit 2

7. R. Bouzammit, S. Belchkar, M. El Fadili, Y. Kanzouai, N. Aflak, M. Chalkha, L. Bahsis, A. Nakkabi, M. Bakhouch, E. Gal, **L. Gaina**, G. Al Houari. Synthesis, Characterization, DFT mechanistic study, Antibacterial Activity, Molecular modeling, and ADMET properties of novel chromone-isoxazole hybrids. Journal of Molecular Structure 2024, 1314, 138770. DOI10.1016/j.molstruc.2024.138770

IF 4.0 cit 2

8. R. Bouzammit, S. Belchkar, M. El Fadili, Y. Kanzouai, S. Mujwar, MM. Alanazi, M. Chalkha, A. Nakkabi, M. Bakhouch, E. Gal, **L. Gaina**, G. Al Houari.

New Triazole-Isoxazole Hybrids as Antibacterial Agents: Design, Synthesis, Characterization, In Vitro, and In Silico Studies. Molecules 2024, 29(11), 2510. DOI

10.3390/molecules29112510 IF 4.2 cit 1

9. B. Stoean, I. Lupan, C. Cristea, M. Silion, L. Silaghi-Dumitrescu, R. Silaghi-Dumitrescu, L. **Gaina\***, Outcomes of folic acid esterification upon the properties of hydrophilic phenothiazinium dyes: New photosensitizers for antimicrobial photodynamic therapy. Journal of Photochemistry and Photobiology A: Chemistry 2024, 451, 115500, <https://doi.org/10.1016/j.jphotochem.2024.115500> IF 4.1, cit 3

10. M. Zetes, A.M. Hada, M. Todea, **L. Gaina**, S. Astilean, A.M. Craciun. Dual-emissive solid-state histidine-stabilized gold nanoclusters for applications in white-light generation. Nanoscale Advances, 2023, 5(21), 5810-5818 <https://doi.org/10.1039/D3NA00555K> IF 4.6, cit 2

11. M. Gal, C. Cristea, A. M. Craciun, A. Turza, L. Barbu-Tudorandl, B. Brem, T. Lovasz, L. Silaghi-Dumitrescu, **L. Gaina\***. New fluorescent electrospun polymer materials containing phenothiazinyl carboxylate metal salts for versatile latent fingerprint detection. Dyes and Pigments 2023, 111085. <https://doi.org/10.1016/j.dyepig.2023.111085> IF 4.1 cit 3

12. M. Gal, A. Turza, B. Stoean, **L. Gaina**, C. Cristea, E. Gal, T. Lovasz, D. Porumb, L. Silaghi-Dumitrescu. Alternative procedures for the green synthesis of 3,7-bis(N,N-(2hydroxyethyl)amino)phenothiazinium dye. Studia Universitatis Babes-Bolyai Chemia 2022, 67(4), 303-314 DOI10.24193/subbchem.2022.4.20 IF 0.5, cit 2

13. B. Stoean, **L. Gaina**, C. Cristea, R. Silaghi-Dumitrescu, A. M.V.Branzanic, M. Focsan, E. Fischer-Fodor, B.Tigu, C. Moldovan, A. D. Cecan, P. Achimas-Cadariu, S. Astilean, L. Silaghi-Dumitrescu. New methylene blue analogues with N-piperidinyl-carbinol units: Synthesis, optical properties and in vitro internalization in human ovarian cancer cells. Dyes and Pigments 205, 2022, 110460. https://doi.org/10.1016/j.dyepig.2022.110460 IF 4.1, cit 10

14. E. Gal, B. Brem, **L. Gaina**, A.M. Craciun, C. Cristea, L. Silaghi-Dumitrescu. Optical properties of new 5- (phenothiazinyl)methylidenebarbituric acid derivatives. Journal of Molecular Structure 1247 (2022) 131334. <https://doi.org/10.1016/j.molstruc.2021.131334> IF 4 cit 1

15. M. Gal, C. Cristea, T. Lovasz, A.M. Craciun, A. Turza, D. Porumb, E. Gal, G. Katona, L. Silaghi-Dumitrescu, **L. Gaina\***. New fluorescent phenothiazine carboxylates for fluorescent nanomaterials. Journal of Molecular Structure 1246 (2021) 131174. <https://doi.org/10.1016/j.molstruc.2021.131174> IF 4, cit 3

16. R. Borlan, D. Stoia, **L. Gaina**, A. Campu, G. Marc, M. Perde-Schrepler, M. Silion, D. Maniu, M. Focsan, S. Astilean. Fluorescent Phthalocyanine-Encapsulated Bovine Serum Albumin Nanoparticles: Their Deployment as Therapeutic Agents in the NIR Region. Molecules 2021, 26, 15, 4679. <https://doi.org/10.3390/molecules26154679> If 4.2 cit 11

17. R. Borlan, M. Focsan, M. Perde-Schrepler, O. Soritau, A. Campu, **L. Gaina**, E. Pall, B. Pop, O. Baldasici, C. Gherman, D. Stoia, D. Maniu, S. Astilean. Antibody-functionalized theranostic protein nanoparticles for the synergistic deep red fluorescence imaging and multimodal therapy of ovarian cancer. Biomaterials Science, 2021, 9, 6183-6202. <https://doi.org/10.1039/D1BM01002F> IF 5.8 cit 6

18. M. Nistor, M. Focsan, **L. Gaina**, M. Cenariu, A. Pintea, C. Socaciu, D. Rugina. Real-time fluorescence imaging of anthocyanins complexed with diphenylboric acid 2-aminoethyl inside B16–F10 melanoma cells. Phytochemistry 189 (2021) 112849. https://doi.org/10.1016/j.phytochem.2021.112849 IF 3.2 cit 3

18. B. Stoean, D. Rugina, M. Focsan, AM.Craciun, M. Nistor, T. Lovasz, A. Turza, D. Porumb, E. Gal, C. Cristea, L. Silaghi-Dumitrescu, S. Astilean, **L. Gaina\***. Novel (Phenothiazinyl)Vinyl-Pyridinium Dyes and Their Potential Applications as Cellular Staining Agents. International Journal of Molecular Sciences 2021, 22(6), 2985. <https://doi.org/10.3390/ijms22062985> IF 4.9 cit 9

20. B. Stoean, **L. Gaina**, E. Gal, C. Cristea, T. Lovasz, Silaghi-Dumitrescu L. Examination of (phenothiazinyl)vinyl-pyridinium dye's capacity of interaction with DNA, Studia Universitatis Babes-Bolyai Chemia, 2021, 66(1), 59-66. DOI 10.24193/subbchem.2021.2.05 IF 0.5 cit 1

21. E. Gal, **L. Gaina**, H. Petkes, Al. Pop, C. Cristea, G. Barta, D.C. Vodnar, L. Silaghi-Dumitrescu. Ultrasound-assisted Strecker synthesis of novel 2-(hetero)aryl-2-(arylamino)acetonitrile derivatives. Beilstein Journal of Organic Chemistry 2020, 16, 2929-2936. https://doi.org/10.3762/bjoc.16.242. IF 2.2 Cit 2

22. E. Molnar, E. Gal, **L. Gaina**, C. Cristea, L. Silaghi-Dumitrescu. Ethyne functionalized meso-phenothiazinyl-phenyl-porphyrins: synthesis and optical properties of free base versus protonated species. Molecules 2020, 25(19), 4546. https://doi.org/10.3390/molecules25194546. IF 4.2 cit 3

23. E. Molnar, E. Gal, **L. Gaina**, C. Cristea, E. Fischer-Fodor, M. Perde-Schrepler, P. Achimas-Cadariu, M. Focsan, L. Silaghi-Dumitrescu. Novel Phenothiazine-Bridged Porphyrin-(Hetero)aryl dyads: Synthesis, Optical Properties, In Vitro Cytotoxicity and Staining of Human Ovarian Tumor Cell Lines. International Journal of Molecular Sciences 2020, 21(9), 3178. https://doi.org/10.3390/ijms21093178. IF 4.9 Cit 10

24. A. I. Pricopie, M. Focsan, I. Ionut, G. Marc, L. Vlase, **L. Gaina**, D. C. Vodnar, E. Simon, G. Barta, A. Pirnau, O. Oniga. Novel 2,4-Disubstituted-1,3-Thiazole Derivatives: Synthesis, Anti-Candida Activity Evaluation and Interaction with Bovine Serum Albumine. Molecules 2020, 25, 1079. https://doi.org/10.3390/molecules25051079. IF 4.2 cit 17

25. S. Varvara, G. Caniglia, J. Izquierdo, R. Bostan, **L. Gaina**, R.M. Souto. Multiscale electrochemical analysis of the corrosion control of bronze in simulated acid rain by horse-chestnut (Aesculus hippocastanum L.) extract as green inhibitor. Corrosion Science 2020, 165, 108381. https://doi.org/10.1016/j.corsci.2019.108381. IF 7.4 cit 46

26. S. Varvara, R. Bostan, M. Popa, **L. Gaina**, F. Popa. Doxepin as Corrosion Inhibitor for Copper in 3.5 Wt. % NaCl Solution. Studia Universitatis Babes-Bolyai Chemia 2020, 65, 3, 125-226. https://doi.org /10.24193/subbchem.2020.3.17. IF 0.5 cit 2

27. A.I. Pricopie, I. Ionuț, G. Marc, A.M. Arseniu, L. Vlase, A. Grozav, **L. Gaina**, D. C. Vodnar, A. Pirnau, B. Tiperciuc, O. Oniga. Design and Synthesis of Novel 1,3-Thiazole and 2-Hydrazinyl-1,3-Thiazole Derivatives as Anti-Candida Agents: In Vitro Antifungal Screening, Molecular Docking Study, and Spectroscopic Investigation of their Binding Interaction with Bovine Serum Albumin. Molecules 2019, 24, 3435. https://doi.org /10.3390/molecules24193435. IF 4.2 cit 34

28. A.F. Szoke, G.S., Szabo, Z. Horvolgyi, E. Albert, **L.Gaina**, L. M. Muresan Eco-friendly indigo carmine-loaded chitosan coatings for improved anti-corrosion protection of zinc substrates. Carbohydrate Polymers 2019, 215 (1) 63-72. doi.org/10.1016/j.carbpol.2019.03.077. IF 10.7 cit 48

29. R. Sisa, B. Brem, E. Gal, **L. Gaina**, D. Porumb, C. Cristea, L. Silaghi-Dumitrescu. Optical properties modulation of cyanine dyes in organic solvents and in the critical intracellular pH window. Studia Universitatis Babes-Bolyai Chemia 2019, 64(2), 547-553. https://doi.org/ 10.24193/subbchem.2019.2.47. IF 0.5 cit 7

30. A. Starukhin, A. Gorski, T. Pavich, V. Kniukshto, **L. Gaina**. Creation of chemically conjugated multichromophoric complexes based on meso-substituted metalloporphyrins. XIII International Workshop on Quantum Optics (IWQO-2019), Book Series: EPJ Web of Conferences, 2019, 220, 03030. https://doi.org/ 10.1051/epjconf/201922003030. IF 0 Cit 3

31. S. Varvara, **L. Gaina**, R. Bostan, F. Popa, A. Grozav. Some phenothiazinyl-thiazolyl-hydrazine derivatives as corrosion inhibitors for carbon steel in 1.0 M HCl: Electrochemical, SEM-EDX and DFT investigations. International Journal of Electrochemical Science, 2018, 13, 8338-8364. https://doi.org/10.20964/2018.09.32. IF 1.3 cit 3

32. B. Brem, Q. Colange, E. Gal, D. Porumb, C. Cristea, **L.Gaina**, T. Lovasz, L. Silaghi-Dumitrescu (Phenothiazinyl) vinyl-indolium cationic dyes. Studia Universitatis Babes-Bolyai Chemia 2018, 63(2), 117-123. https://doi.org/10.24193/subbchem.2018.2.11. IF 0.5 Cit 1

33. S. Varvara, R. Bostan, O. Bobis, **L. Gaina**, F. Popa, V. Mena, R. M. Souto. Propolis as a green corrosion inhibitor for bronze in weakly acidic solution. Applied Surface Science, 2017, 426C, 1100-1112. https://doi.org/10.1016/j.apsusc.2017.07.230. IF 6.3 cit 77

34. R. Bostan, S. Varvara, **L. Gaina**, T. Petrisor Jr., L. M. Muresan, Protective effect of inhibitor-containing nitrocellulose lacquer on artificially patinated bronze. Progress in Organic Coatings, 2017, 111C, 416-427, https://doi.org/10.1016/j.porgcoat.2016.08.004. IF 6.5 Cit 14

35. B. Brem, E. Gal, **L. Gaina**, L. Silaghi-Dumitrescu, E. Fischer-Fodor, C. I. Tomuleasa, A. Grozav, V. Zaharia, L. Filip, C. Cristea. Novel Thiazolo [5,4-b] phenothiazine Derivatives: Synthesis, Structural Characterization, and In Vitro Evaluation of Antiproliferative Activity against Human Leukaemia. International Journal of Molecular Sciences 2017, 18(7), 1365; <https://doi.org/10.3390/ijms18071365>. IF 4.9 cit 15

36. A. Grozav, I.D. Porumb, **L. Gaina\***, L. Fililip\*, D. Hanganu. Cytotoxicity and Antioxidant Potential of Novel 2-(2-((1H-indol-5yl)methylene)-hydrazinyl)-thiazole Derivatives. Molecules 2017, 22(2), 260. https://doi.org/ 10.3390/molecules22020260. IF 4.2 cit 53

37. A.M. Craciun, M. Focsan, **L. Gaina**, S. Astilean. Enhanced one- and two-photon excited fluorescence of cationic (phenothiazinyl)vinyl-pyridinium chromophore attached to polyelectrolyte-coated gold nanorods. Dyes and Pigments 2017, 136, 24-30. https://doi.org/10.1016/j.dyepig.2016.08.033. IF 4.1, cit 10

38. B. Brem, E. Gal, **L. Gaina**, T. Lovasz, E.A. Molnar, D. Porumb, C. Cristea. Novel 1,9-diacyl-5-(phenothiazinyl)dipyrromethane dialkyltin complexes. Studia Universitatis Babes-Bolyai Chemia 2016, 61(3), 73-80. Cit 1 IF 0.5

39. A. Starukhin, A. Gorski, V. Knyukshto, A. Panarin, T. Pavich, **L. Gaina**, E. Gal. Photophysical study of meso-phenothiazinyl-porphyrins metallocomplexes

11th International Symposium on Photon Echo and Coherent Spectroscopy (PECS) Location: Svetlogorsk, Rusia, SEP 16-21, 2017. XI International Symposium on Photon Echo and Coherent Spectroscopy (PECS-2017) Book Series: EPJ Web of Conferences 2017, 161, UNSP 03017. https://doi.org/10.1051/epjconf/201716103017.

40. E. Gal, **L. Gaina**, C. Cristea, V. Munteanu, L. Silaghi-Dumitrescu. The influence of bonding topology on the electronic properties of new Schiff bases containing phenothiazine building blocks, Journal of Electroanalytical Chemistry 2016, 770, 14-22. https://doi.org/10.1016/j.jelechem.2016.03.019. IF 4.1Cit 12

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42. B. Brem, E. Gal, C. Cristeaa, **L. Gaina**, A. Grozav, V. Zaharia, L. Silaghi-Dumitrescu. Synthesis of new benzothiazolyl-phenothiazine derivatives. Studia Universitatis Babes-Bolyai Chemia, 2015, 60(2), 371-378. IF 0.5 cit 3

43. B. Brem, E. Gal, T. Lovasz, C. Cristea**, L. Gaina**, L. Silaghi-Dumitrescu. Assessments of electronic properties in phenothiazine carbaldehyde regioisomers series. Studia Universitatis Babes-Bolyai Chemia, 2015, 60(2), 271-279. IF 0.5 Cit 2

44. I. H. Filip, E. Gál, I. Lupan, M. Perde-Schrepler, P. Lönnecke, M. Surducan, **L. Gaina**, E. Hey-Hawkins and L. Silaghi-Dumitrescu, Tuning the coordination properties of phenothiazine by regioselective introduction of diphenylphosphanyl groups, Dalton Transactions. 2015, 44, 615–629. https://doi.org/10.1039/c4dt02665a. IF 3.5 cit 9

**5. Lucrări publicate în ultimii 10 anii în reviste şi volume de conferinţe cu referenţi**

**(neindexate)**

**- Reviste**

1.

**- Selecţie cu maximum 20 lucrări în volume de conferinţe**

2.

* 1. **Brevete obţinute în întreaga activitate**

3.

Nota: Datele sunt preluate din Baza de date Managementul Cercetarii si prezentate in extenso in Anexa Indicatori de calitate pe 10 ani.

**Data: Semnătura:** Găină Ioana Luiza

01.07.2025

