

Student research group on supramolecular chemistry, proteomics, separation and identification of active ingredients and other analytical & organic chemistry and biopharmaceutical issues

Acronym: SCHEPSIA

Permanent members:

Head of the group: Assoc. Prof. Dr. Șerban Andrei Gâz Florea

Members: Assistant PhD student Moldovan Octavia

Technical assistant: Anuța IACOB

Contact:

University of Medicine, Pharmacy, Science and Technology “GE Palade” of Tîrgu Mureș

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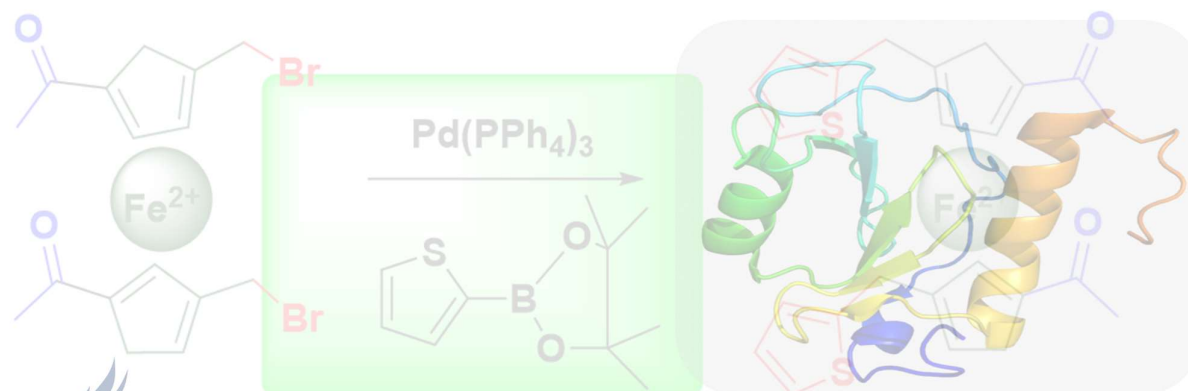
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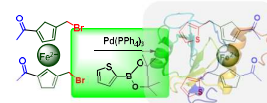
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<https://www.tiktok.com/@chimie.organica?lang=en>

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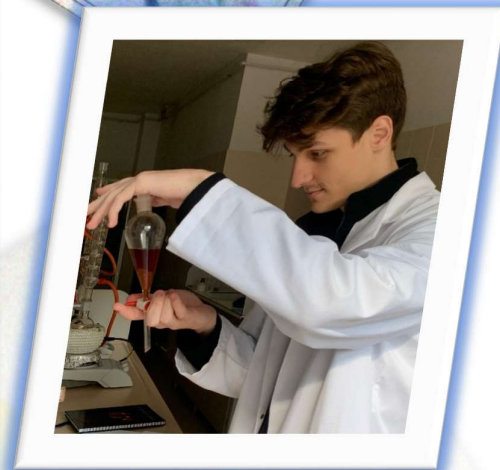
Students currently involved:

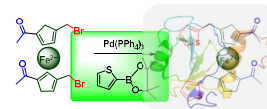
Freundlich Leah

Burtavel Mihai Silviu

Mileșan Ariana

Bernath Cindy Blanka





Research topics:

- Design, synthesis and structural analysis of new organic compounds and/or supramolecular compounds (organic) with possible biological activities, opto-electronic or logic gate properties;
- Ferrocene chemistry;
- Separation and identification of active ingredients from different mixtures (food, plants, cosmetics etc.);
- Separation, identification, structural analysis and characterization of new compounds with possible biological activities from plants;
- Proteomics – snake venom analysis;
- Proteomics – synthesis of new peptides;
- Studiul unor compuși chimici cu potențial efect de ameliorare a toxicității pe termen lung a monoglutamatului de sodiu;

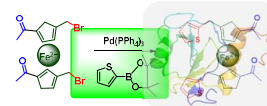
Research infrastructure (relevant items): HPLC-UV, LC-MS/MS, RMN, GC-MS, SDS-PAGE, biofacilities (for experiments on animals if necessary);

Relevant *in extenso* ISI articles of the research team (as main authors: first author, corresponding author and last author):

IF>1

- 1) Andrei Șerban Gâz, Francisc Andrei Boda, Rahela Roxana Pop – *Imidazole Derivatives and their Antibacterial Activity – a Mini-Review*, Mini Review in Medicinal Chemistry, **2021**, 21 (11), 1380-1392, DOI: 10.2174/1389557520999201209213648, IF(2020)=3,862 (Q4);
- 2) Nath N.K., Manoj K., Gâz A.Ș., Naumov P. – *Visible-light-induced photodimerization of a photoactive yellow protein (PYP) chromophore model in a single crystal*, Chemistry-A European Journal, **2013**, 19, 8094- 8099, IF: 5.696;
- 3) Circu M., Petran A., Gâz A.Ș., Bogdan E., Terec A., Raț C.I., Varga R.A., Grosu I. – *Synthesis and structure of new crown ethers with 1,4-phenylene and 1,4-naphthylene units*, Journal of Molecular Structure, **2011**, 996, 1-3, 17-23, IF: 1.634 (2011);





- 4) Gâz, Ș. A.; Condamine, E.; Bogdan, N.; et al. – *Synthesis and stereochemistry of some new spiro and polyspiro-1,3-dithiane derivatives*, *Tetrahedron* **2008**, 64, 30-31, 7295-7300, IF: 2.897;

IF<1

- 1) “*Antibacterial activity of some saturated polyoxotungstates*”, L. Grama, A. Man, D.-L. Muntean, Ș. A. Gâz Florea, F. Boda, A. Curticăpean, *Revista Română de medicină de Laborator*, **2014**, 1, 22, 111-117, IF: 0.239;
- 2) “*3,9-Diisopropyl-2,4,8,10-tetrathiaspiro[5.5]undecane*”, Ș. A. Gâz, I. Dobra, A. Woiczehowski-Pop, R. A. Varga, I. Grosu, *Acta Crystallographica Section E*, **2010**, E66, o2618, IF: 0.413 (2010);

BDI/B+

“*New RP-HPLC method for separation of Naja haje haje venom and studies of its bactericidal effect*”, Gâz Florea A.Ș., Ciurca D., Mare A., Man A., Cordoș B., Grama L., Muntean D.-L., *Acta Medica Marisiensis* **2015**, DOI: 10.1515/amma-2015-0113, Indexat Bază de date: EBSCO;

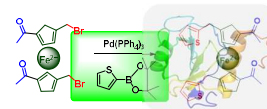
“*Snake venom metalloproteinases*”, Gâz Florea A.Ș., Gâz Florea A., Hajnal K., Muntean D.-L., *Acta Medica Marisiensis* **2015**, DOI: 10.1515/amma-2015-0114, Indexat Bază de date: EBSCO;

“*The UV and IR Comparative Spectrophotometric Study of some Saturated and Lacunary Polyoxometalates*” Grama L., Boda F., Gâz Florea A.Ș., Curticăpean A., Muntean D.-L., *Acta Medica Marisiensis* **2013**, 59, 84-88, Indexat Bază de date: EBSCO;

“*Synthesis and Structural Analysis of Some New Precursors of Macrocyclic Cyclophanes: 1,4-Bis(2-R-5,5-dimethyl-1,3-Dioxan-2-yl)benzene*”, N. Bogdan, F. Pop, S. A. Gâz, E. Bogdan, A. Terec, L. David, I. Grosu, *Studia Univ. “Babes-Bolyai”, Chemia* **2006**, LI (1), 3–12 Indexat Bază de date: ISI Thomson Reuters, EBSCO, SCOPUS, ProQuest;

“*Synthesis and Structural Analysis of Some New Precursors of Macrocyclic Cyclophanes: 1,4-Bis(2-R-5-R1-1,3-Dioxan-2-yl)benzene Derivatives*”, N. Bogdan, F. Pop, E. Bogdan, S. A. Gâz, A. Terec, L. David, I. Grosu, *Studia Univ. “Babes-Bolyai”, Chemia* **2006**, LI (1), 13–20, Indexat Bază de date: ISI Thomson Reuters, EBSCO, SCOPUS, ProQuest;





Student's participation at scientific meetings (<http://marisiensis.ro/>)

“UV-VIS spectrometry determination of caffeine from chocolate”, Ciobanu Diana, Sarkany Anita, Bojan Andrada, Gâz Florea Șerban Andrei Marisiensis 2015;

“Identification and quantification of parabens in cosmetic products by RP-HPLC method”, Carmen Maria Rusz, Laura Elena Gliga, Ș. A. Gâz Florea, Acta Medica Marisiensis 2014, 60, Supplement 3, 113-114;

“Developing an optimal RP-HPLC and gel electrophoresis methods for separation and identification of Naja haje snake venom enzymes”, Diana Ciurcă, Anca Teodora Berdan, B. Cormoș, Ș. A. Gâz Florea, Acta Medica Marisiensis 2014, 60, Supplement 3, 112;

“Assay of calcium and magnesium from cheese products by complexometry and ICP method”, Nicoleta Pascari, R. Someșan, L. Ognean, Ș. A. Gâz Florea, Acta Medica Marisiensis 2014, 60, Supplement 3, 115;

“Supramolecular Drug Carriers”, Niculoiu Iulia M., Avrigeanu V., Gâz Florea Ș. A., Acta Medica Marisiensis 2014, 60, Supplement 3, 125;

“What is not poison? All things are poisons and nothing is without toxicity? Organometallic compounds as possible anticancer drugs”, Paler Ioana, Avrigeanu V., Gâz Florea Ș. A., Acta Medica Marisiensis 2014, 60, Supplement 3, 126-127;

“Determination of L-Ascorbic acid by UV-VIS Spectroscopy”, Stăcescu Ștefana, Mircia E., Gâz Florea Ș. A., Acta Medica Marisiensis 2013, 59, Supplement 1, 84;

“Venom Metalloproteinase”, Gâz Florea Ș. A., Ciurcă Diana, Berdan Anca, Avrigeanu V. Acta Medica Marisiensis 2013, 59, Supplement 4, 58;

