

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: Lecturer dr. Șerban Andrei GÂZ FLOREA

Members:

Lecturer dr. Eleonora MIRCIA

Technician Anuța IACOB

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Students currently involved:

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Pop Andreea

Pop Diana

Peterlicean Flavia

Dandu Marius

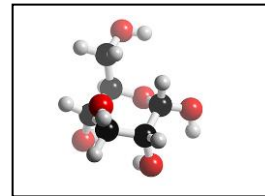
Ciobanu Diana

Lakó Brigitta-Dora

Sarkany Anita

Moldovan Andreea





Research topics:

- Design, synthesis and structural analysis of new organic compounds and/or supramolecular compounds (organic) with possible opto-electronic or logic gate properties;
- Design, synthesis and structural analysis of new organic compounds;
- 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;

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):

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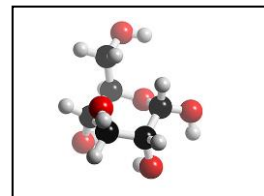
- "Microbiological activity of *Chrotalus atrox* snake venom" (in preparation)
- "Visible-light-induced photodimerization of a photoactive yellow protein (PYP) chromophore model in a single crystal" Nath N.K., Manoj K., Gâz A.Ș., Naumov P., *Chemistry-A European Journal*, **2013**, 19, 8094-8099, IF: 5.696;
- "Synthesis and structure of new crown ethers with 1,4-phenylene and 1,4-naphthylene units", Circu M., Petran A., Gâz A.Ș., Bogdan E., Terec A., Raț C.I., Varga R.A., Grosu I., *Journal of Molecular Structure*, **2011**, 996, 1-3, 17-23, IF: 1.634 (2011);
- "Synthesis and stereochemistry of some new spiro and polyspiro-1,3-dithiane derivatives", Gâz, Ș. A.; Condamine, E.; Bogdan, N.; et al. *Tetrahedron* **2008**, 64, 30-31, 7295-7300, IF: 2.897;

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- "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;
- "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, Ș. 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/>)

1. *"UV-VIS spectrometry determination of caffeine from chocolate"*, **Ciobanu Diana, Sarkany Anita, Bojan Andrada**, Gâz Florea Șerban Andrei *Marisiensis* 2015;
2. *"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;
3. *"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;
4. *"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;
5. *"Supramolecular Drug Carriers"*, **Niculoiu Iulia M.**, Avrigeanu V., Gâz Florea Ș. A., *Acta Medica Marisiensis* **2014**, 60, Supplement 3, 125;
6. *"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;
7. *"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;
8. *"Venom Metalloproteinase"*, Gâz Florea Ș. A., **Ciurcă Diana, Berdan Anca**, Avrigeanu V. *Acta Medica Marisiensis* **2013**, 59, Supplement 4, 58;

