



Școala Doctorală de Chimie

Nr. 151/10.02.2025

TEMATICA PENTRU CONCURSUL DE ADMITERE LA DOCTORAT
sesiunea iulie 2025**Prof. univ. dr. habil. Cecilia ARSENE**

- 1. Metode moderne de analiză utilizate în caracterizarea unor arhitecturi organice cu fragment indolizinic pentru diverse aplicații (ro)**
Modern analyses methods involved in the characterization of organic architectures with indolizine moiety for various applications (en)

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Prof. univ. dr. Ionel MANGALAGIU

- 1. Heterociclici cu azot de șase atomi cu schelet acetofenonic sau analogi: sinteză, structură, aplicații (ro)**
Six member ring azaheterocyclic compounds with acetophenonic skeleton: synthesis, structure, applications (en)
- 2. Azaheterociclici de șase atomi hibridi sau chimERICI: sinteză, structură, aplicații (ro)**
Six member ring hybrid or chimeric azaheterocyclic derivatives: synthesis, structure, applications (en)

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2. Mangalagiu, V.; Danac, R.; Diaconu, D.; Zbancioc, G.; Mangalagiu, I.I.* Hybrids diazine: Recent Advancements in Modern Antimicrobial Therapy, *Current Medicinal Chemistry* **2024**, *31(19)*, 2687-2705.
3. Balaes, T.; Marandis, C.G.; Mangalagiu, V.; Glod, M.; Mangalagiu, I.I.* New insides into chimeric and hybrid azines derivatives with antifungal activity. *Future Medicinal Chemistry* **2024**, *16(11)*, 1163–1180.
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5. Diaconu, D.; Mangalagiu, V.; Dunca, S.; Amăriucăi-Mantu, D.; Antoci, V.; Roman, T.; Mangalagiu, I.I.. Ultrasound assisted synthesis of hybrid quinoline anchored with 4-R-benzenesulfonamide moiety with potential antimicrobial activity. *Heliyon* **2023**, *9*, e21518.
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7. Amariuca-Mantu, D.; Mangalagiu, V.; Bejan, I.; Aricu, A.; Mangalagiu, I.I. Hybrid Azine Derivatives: A useful Approach for Antimicrobial Therapy. *Pharmaceutics* **2022**, *14*, 2026.
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9. Diaconu, D.; Amariuca-Mantu, D.; Mangalagiu, V.; Antoci, V.; Zbancioc, Ghe.; Mangalagiu, I.I. Ultrasound assisted synthesis of hybrid quinoline-imidazole derivatives: a green synthetic approach. *RSC Advanced* **2021**, *11*, 38297–38301.
10. Amariuca-Mantu, D.; Mangalagiu, V.; Mangalagiu, I.I. [3 + n] Cycloaddition Reactions: A Milestone Approach for Elaborating Pyridazine of Potential Interest in Medicinal Chemistry and Optoelectronics. *Molecules* **2021**, *26*, 3359.

Prof. univ. dr. habil. Romeo-Iulian OLARIU**1. Dezvoltarea unui sistem ring-down spectroscopy pentru determinarea radicalilor NO₃ într-o cameră de simulare a reacțiilor chimice din atmosferă (ro)**

Development of a ring-down spectroscopy system for the determination of NO₃ radicals in a simulation chamber of chemical reactions in the atmosphere (en.)

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1. Seinfeld, J. H., Pandis, S. N., Atmospheric Chemistry and Physics: From Air Pollution to Climate Change, Wiley, New York, **1998**.
 2. Finlayson-Pitts, B. J.; Pitts, N. J., Jr. Chemistry of the Upper and Lower Atmosphere; Academic Press: San Diego, CA, **2000**.
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2. Izolarea și caracterizarea compușilor psihoactivi din plantele utilizate în medicamentația tradițională (ro)



Isolation and characterization of psychoactive compounds from plants used in traditional medicine (en)

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2. Kumar, A., & Singh, A., Recent Advances in the Analysis of Psychoactive Compounds in Herbal Medicines." *Molecules*, 28(3), 1234, 2023.
3. Zeng, Y., et al., Application of HPLC in the Identification of Phytochemicals with Psychoactive Properties: A Review. *Journal of Chromatography A*, 1695, 463450, 2023.

3. Metode avansate de analiză pentru evaluarea caracteristicilor unor noi triazoli chirali cu diverse aplicații (ro)

Advanced analyses methods to evaluate the characteristics of new chiral triazoles with various applications (en)

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Prof. univ. dr. habil. Gheorghită ZBANCIOC

1. Sinteza de noi derivati 1,2-diazinici prin metode convenționale și neconvenționale (ro)
Synthesis of new 1,2-diazine derivatives by conventional and unconventional methods (en)

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2. Compuși azaheterociclici cu potențial terapeutic: sinteză, proprietăți și activitate biologică (ro)

Azaheterocyclic compounds with therapeutic potential: synthesis, properties, and biological activity (en)

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