



Școala Doctorală de Chimie

TEMATICA PENTRU CONCURSUL DE ADMITERE LA DOCTORAT sesiunea iulie 2025

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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2. Finlayson-Pitts, B. J.; Pitts, N. J., Jr. Chemistry of the Upper and Lower Atmosphere; Academic Press: San Diego, CA, **2000**.
3. Jean-François Doussin, J.F., Fuchs, H., Kiendler-Scharr, A. Seakins, P., Wenger, J., (Eds), A Practical Guide to Atmospheric Simulation Chambers, Springer, Cham, Switzerland, **2023**.
4. Kjaergaard, H. G., & Glasius, M. Measurement of Nitrogen Dioxide and Nitrate Radical Concentrations Using Ring-Down Spectroscopy. Applied Physics B, 129(3), 12, **2023**.
5. Zheng, Y., et al. Advancements in Ring-Down Spectroscopy for Detecting Nitrate Radicals in Atmospheric Research. Atmospheric Measurement Techniques, 16(1), 45-57, **2023**.

2. Izolarea și caracterizarea compușilor psihoactivi din plantele utilizate în medicina tradițională (ro)

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

Bibliografie/References

1. Bell, S., Forensic Chemistry, CRC Press, **2022**.
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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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- VCD spectroscopy for organic chemists, Philip J Stephens; Frank J Devlin; James R Cheeseman, CRC Press, **2012**, ISBN: 9781439821718,1439821712
- Encyclopedia of spectroscopy and spectrometry, John C Lindon; George E Tranter; David W Koppenaal, Elsevier, Academic Press City: Amsterdam, **2010**, ISBN: 978-0-12-374413-5, 012374413X

4. QSAR, docking molecular, simulări dinamice și inteligența artificială în analiza relației structură-activitate a moleculelor cu potențial terapeutic metabolic (ro)

QSAR, Molecular Docking, Molecular Dynamics Simulations, and Artificial Intelligence in the Structure–Activity Relationship Analysis of Molecules with Metabolic Therapeutic Potential (en)

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- Cheminformatics, QSAR and Machine Learning Applications for Novel Drug Development – Editor: Kunal Roy (Academic Press, **2023**).
- Molecular Docking for Computer-Aided Drug Design: Fundamentals, Techniques, Resources and Applications – Editor: Mohane S. Coumar (Academic Press, **2021**).
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