



Școala Doctorală de Chimie

06.06.2018

TEMATICA PENTRU CONCURSUL DE ADMITERE LA DOCTORAT sesiunea septembrie 2018

Prof. univ. dr. habil. Cecilia ARSENE

1. **Caracterizarea chimică a aerosolilor organici secundari de natură biogenă din materia particulată ambientală din Iași, nord-estul României.**

Chemical characterisation of biogenic secondary organic aerosols in ambient particulate matter from Iasi, north-eastern Romania.

Bibliografie/References

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2. Olariu, R.I., Vione, D., Grinberg, N., Arsene C., Applications of liquid chromatographic techniques in the chemical characterization of atmospheric aerosols, Journal of Liquid Chromatography and Related Technologies, 38, 322-348, 2015.
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2. **Separarea compușilor bio&farmaceutici prin cromatografie de lichide cu interacții hidrofilice și cromatografie zwitterionică.**

Separation of bio & pharmaceutical compounds in Zwitterionic Chromatography-Hydrophilic Interaction Liquid Chromatography (ZIC-HILIC).

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2. Zhang, K., Liu, X., Mixed-mode chromatography in pharmaceutical and biopharmaceutical applications, Journal of Pharmaceutical and Biomedical Analysis, 130, 19-34, 2016.



3. Olariu, R.I., Vione, D., Grinberg, N., Arsene, C., Sample preparation for trace analysis by chromatographic methods, *Journal of Liquid Chromatography & Related Technologies*, 33, 1174-1207, 2010.
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Prof. univ. dr. Elena BÎCU

1. **Sinteze de noi azaheterocicli cu proprietati speciale.**
2. **Noi analogi de calcone cu proprietati biologice.**

Bibliografie

1. D. Barton, W. D. Ollis, *Comprehensive Organic Chemistry, Heterocyclic Compounds*, vol 4.
2. “Synthesis and biological evaluation of a new series of phenothiazine-containing protein farnesyltransferase inhibitors”, C.-M. Abuhaie, A. Ghinet, A. Farce, J. Dubois, P. Gautret, B. Rigo, D. Belei, E. Bîcu, *European Journal of Medicinal Chemistry*, 59, 101-110 (2013).
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3. “Synthesis and anticancer activity of analogues of phenstatin, with a phenothiazine A-ring, as a new class of microtubule-targeting agents”, C.-M. Abuhaie, E. Bîcu, B. Rigo, P. Gautret, D. Belei, A. Farce, J. Dubois, A. Ghinet, *Bioorganic & Medicinal Chemistry Letters*, 23, 147-152 (2013).
DOI: 10.1016/j.bmcl.2012.10.135
4. “Studies on indolizines. Evaluation of their biological properties as microtubule- interacting agents and as melanoma targeting compounds”, A. Ghinet, C.-M. Abuhaie, P. Gautret, B. Rigo, J. Dubois, A. Farce, D. Belei, E. Bîcu, *Eur. J. Med. Chem.*, 89, 115-127, (2015).
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5. "New indolizine–chalcones as potent inhibitors of human farnesyltransferase: Design, synthesis and biological evaluation" I.-M. Moise, A. Ghinet, D. Belei, J. Dubois, A. Farce, E. Bîcu, *Bioorganic and Medicinal Chemistry Letters*, 26, 3730-3734, (2016).
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doi: 10.1016/j.bmc.2016.09.063.

Prof. univ. dr. Gabi DROCHIOIU

1. **Poluanți majori ai mediului: metode specifice de investigare a metalelor grele, pesticidelor, cianogenilor etc.**

Major environmental pollutants: specific methods for investigating heavy metals, pesticides, cyanogens, etc.

**Bibliografie/references**

1. Drochioiu, G., Gradinaru, R. V., Risca, I. M., Mangalagiu, I. Toxicologie-Aplicații în protecția mediului, industrie, agricultură, biologie și criminalistică. Edit. Univ. Al. I. Cuza Iași, 2013.
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3. Khopkar, S. M. (2007). Environmental pollution monitoring and control. New Age International.
4. Clement, R. E., Koester, C. J., & Eiceman, G. A. (1993). Environmental analysis. Analytical Chemistry, 65(12), 85-116.

2. Sinteza de peptide și caracterizarea acestora prin spectrometrie de masă, spectroscopie de infraroșu și dicroism circular: aplicații biomedicale.

Synthesis of peptides and their characterization by mass spectrometry, infrared spectroscopy and circular dichroism: biomedical applications.

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1. Murariu, M., Drochioiu, G., Dragan, E. S. Sinteza de peptide și interacțiunea acestora cu metalele grele. Edit. Tehnopress, Iași, 2011.
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Prof. univ. dr. Ionel MANGALAGIU

1. **Noi compuși diazinici: sinteză, structură, proprietăți.**
2. **Noi compuși azinici: sinteză, structură, proprietăți.**

Bibliografie

1. Mantu, D.; Antoci, V.; Moldoveanu, C.; Zbancioc, Ghe.; **Mangalagiu, I.I. Hybrid imidazole (benzimidazole) / pyridine (quinoline) derivatives and evaluation of their anticancer and antimycobacterial activity**, *J. Enzym. Inh. Med. Ch.*, **31(2)**, 96-103 , 2016. Publisher: Taylor &



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2. Zbancioc, Ghe.; Zbancioc, A.M; **Mangalagiu, I.I.** Ultrasound and microwave assisted synthesis of dihydroxyacetophenone derivatives with or without 1,2-diazine skeleton, *Ultrason. Sonochem.*, **21**, 802-811, 2014. Publisher: Elsevier B.V., CODEN: ULSOER ISSN: 1350-4177. doi:10.1016/j.ultsonch.2013.09.012.
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Prof. univ. dr. habil. Romeo-Iulian OLARIU

1. **Studiul degradării atmosferice a unor compuși organici oxigenați volatili.**
Study of atmospherically degradation of some oxygenated volatile organic compounds.

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1. The Future of Atmospheric Chemistry Research. A report of the National Academies of Sciences, Engineering and Medicine, 2016.
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Prof. univ. dr. Aurel PUI

1. **Compuși coordinativi cu aplicații biomedicale.**

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1. A. Pui, D.G. Cozma, Bazele chimiei compusilor coordinativi, Ed MatrixRom, Bucuresti, 2006.



2. Ryan E. Mewis, Stephen J. Archibald, Biomedical applications of macrocyclic ligand complexes, *Coordination Chemistry Reviews* 254 (2010) 1686–1712.
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2. Nanoparticule magnetice cu diferite aplicații.

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1. U. Schubert, N. Husing, R. Laine, *Material Syntheses*, Springer Wien NewYork, 2008, Springer-Verlag/Wien.
2. L. Wu, A.Mendoza-Garcia, Q. Li, S. Sun, Organic Phase Syntheses of Magnetic Nanoparticles and Their Applications, *Chemical Reviews*, 116, 18, 2016, Pages 10473-10512.
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