

**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.
3. Seinfeld, J.H. and S.N. Pandis, *Atmospheric Chemistry and Physics, From Air Pollution to Climate Change*, 3rd Edition, John Wiley, New York, 1998.

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).**Bibliografie/references**

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



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Prof. univ. dr. Elena BÎCU

- Sinteze de noi azaheterocicli cu proprietati speciale.**
- Noi analogi de calcione cu proprietati biologice.**

Bibliografie

- D. Barton, W. D. Ollis, *Comprehensive Organic Chemistry, Heterocyclic Compounds*, vol 4.
- Sa se cunoasca domeniul de cercetare al colectivului.

Prof. univ. dr. Gabi DROCHIOIU

- 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

- 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.
- Drochioiu, G., Mangalagiu, I., Druta, I. *Elemente de teorie și practică toxicologică*. (Elements of toxicological theory and praxis). Edit. Demiurg, Iași, 2001.
- Khopkar, S. M. (2007). *Environmental pollution monitoring and control*. New Age International.
- 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.

Bibliografie/references

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 & Francis, Informa Ltd, ISSN: 1475-6366 (print), 1475-6374 (electronic). <http://dx.doi.org/10.1080/14756366.2016.1190711>
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.
3. Tucaliuc, R.; Cotea, V.; Niculaua, M.; Tuchilus, C.; Mantu, D.; **Mangalagiu, I.I.** New Pyridazine–Fluorine Derivatives: Synthesis, Chemistry and Biological Activity. Part II, *Eur. J. Med. Chem.*, **67**, 367-372, 2013. ELSEVIER FRANCE-EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, FRANCE , ISSN: 0223-5234. doi:10.1016/j.ejmech.2013.04.069



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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.

Bibliografie/references

1. The Future of Atmospheric Chemistry Research. A report of the National Academies of Sciences, Engineering and Medicine, 2016.
2. Atmospheric Reaction Chemistry, Akimoto, Hajime, Springer Atmospheric Sciences, 2016
3. Chemistry of the Upper and Lower Atmosphere, Theory, Experiments, and Applications, Barbara Finlayson-Pitts James Pitts, Jr., Academic Press, 1999
4. Atmospheric Chemistry and Physics, Seinfeld, J.H. and S.N. Pandis, From Air Pollution to Climate Change, 3rd Edition, John Wiley, New York, 1998.

Prof. univ. dr. Aurel PUI

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

Bibliografie

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.

Bibliografie

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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