



Școala Doctorală de Chimie

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**TEMATICA PENTRU CONCURSUL DE ADMITERE LA  
DOCTORAT  
sesiunea septembrie 2022**

**Prof. univ. dr. habil. Cecilia ARSENE**

- 1. Aerosoli atmosferici generați prin arderea biomasei și a biocombustibililor. Caracterizare fizico-chimică și reactivitate în condiții atmosferice reale și simulate (ro)**  
*Atmospheric aerosols from biomass and biofuels burning. Physico-chemical characterization and reactivity under real and simulated atmospheric conditions (en)*

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5. Liu-Kang, C., Gallimore, P.J., Liu, T., Abbatt, J.P.D., Photoreaction of biomass burning brown carbon aerosol particles, *Environmental Science: Atmosphere*, 2, 270-277, **2022**.

- 2. Hidrocarburi aromatice policiclice și derivați ai acestora în atmosfera zonei urbane Iași, nord-estul României. Atribuirea surselor și estimarea riscurilor asupra sănătății umane (ro)**  
*Polycyclic aromatic hydrocarbons (PAHs) and their derivatives in the atmosphere of the Iasi urban area, north-eastern Romania: Sources apportionment and health risk assessments (en)*

**Bibliografie/References**

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4. Singh, R., Yadav, A., Chopra, A., Christopher, J., Kapur, G.S., Comparison of five different HPLC columns with different particle sizes, lengths and make for the optimization of seven polycyclic aromatic hydrocarbons (PAH) analysis, *Springer Nature Applied Sciences*, 1, 313, 2019.
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## Prof. univ. dr. Elena BÎCU

### 1. Noi compuși azaheterociclici penta- și hexa-atomici. Sinteze și aplicații (ro)

*New penta- and hexa-atomic azaheterocyclic compounds. Syntheses and applications (en)*

#### Bibliografie/References

1. Moise, I.M., Bicu, E., Farce, A., Dubois, J., Ghinet, A., Indolizine-phenothiazine hybrids as the first dual inhibitors of tubulin polymerization and farnesyl transferase with synergistic antitumor activity, *Bioorganic Chemistry*, 103, 104184, 2020;
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### 2. Noi derivați 1,2,3-triazolici. Sinteze și aplicații (ro)

*New 1,2,3-triazole derivatives. Syntheses and applications (en)*

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1. Lal, S., Diez-Gonzalez, S., [CuBr(PPh<sub>3</sub>)<sub>3</sub>] for Azide-Alkyne Cycloaddition Reactions under strict click conditions, *The Journal of the Organic Chemistry*, 76, 2367-2373, 2011, DOI:10.1021/jo200085j
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4. Bozorova, K., Zhaoa, J., Aisaa, H.A., 1,2,3-Triazole-containing hybrids as leads in medicinal chemistry: A recent overview, *Bioorganic & Medicinal Chemistry*, 27 (16), 3511-3531, 2019, DOI: doi.org/10.1016/j.bmc.2019.07.005
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## Prof. univ. dr. Gabi DROCHIOIU

### 1. Dinitrofenoli-bioenergetică și aplicații biomedicale (ro) *Dinitrophenols – Bioenergetics and biomedical applications (en)*

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1. Airinei, A., Nicolescu, A., Drochioiu, G., Rusu, E., Jurcoane, S., Rusu, G., Dinitrophenols-from Chemistry to Life and Health. PIM Publ. House, Iasi, **2010**.
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## Prof. univ. dr. Ionel MANGALAGIU

### 1. Compuși hibridi azaheterociclici cu potențiale aplicații practice (ro) *Hybrid azaheterocyclic compounds with potential practical applications (en)*

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1. Antoci, V., Cucu, D., Zbancioc, Ghe., Moldoveanu, C., Mangalagiu, V., Amariuca-Mantu, D., Aricu, A., Mangalagiu, I.I., Bis-(imidazole/benzimidazole)-pyridine derivatives: synthesis, structure and antimycobacterial activity. Part XII, *Future Medicinal Chemistry*, 12, 207-222, **2020**.
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## Prof. univ. dr. habil. Romeo-Iulian OLARIU

1. **Studiul degradării atmosferice a unor solvenți organici curați (ro)**  
*Study of the atmospheric degradation of selected clean organic solvents (en)*

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## Prof. univ. dr. Aurel PUI

1. **Nanostructuri oxidice cu aplicații biomedicale și în tratarea apelor (ro)**  
*Oxide nanostructures with biomedical and water treatment applications (en)*

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2. **Corelația structură-proprietăți în seria unor oxizi metalici micști (ro)**  
*The correlation between structure and properties in the mixed metal oxides series (en)*

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