UNIVERSITATEA BABEŞ-BOLYAI
BABEŞ-BOLYAI TUDOMÁNYEGYETEM
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TRADITIO ET EXCELLENTIA

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Nume prenume conducător doctorat: Prof. Dr. Pinzaru Simona

Nr. locuri la doctorat: 2/2

Tip loc la doctorat : buget, fara bursa, romani de pretutindeni

Membrii comisiei de admitere:

1. Prof. Dr. Simona Pinzaru
2. Prof. Dr. Vasile Chis
3. CS I Dr. Alina Magdas

Tematica pentru examenul scris:

1. Investigarea interfetei dintre micro-nano plastic si microorganisme
2. Tehnici spectroscopice pentru investigarea microorganismelor expuse la micro/nano plastic

Tematică pentru interviu :

1. Detectia SERS a nanoplasticelor; avantaje si limitari;
2. Resonanta Raman a carotenoizilor in organisme fotosintetice expuse la nanoplastic

Bibliografie

1.H. Hadiyanto, Adian Khoironi, Inggar Dianratri, Suherman Suherman, Fuad Muhammad, Seetharaman Vaidyanathan, Interactions between polyethylene and polypropylene microplastics and Spirulina sp. microalgae in aquatic systems, Heliyon, 7, 8, 2021,e07676, https://doi.org/10.1016/j.heliyon.2021.e07676.

2.Navin Kumar Mogha, Dongha Shin, Nanoplastic detection with surface enhanced Raman spectroscopy: Present and future, TrAC Trends in Analytical Chemistry, 158, 2023, 116885, https://doi.org/10.1016/j.trac.2022.116885.

3.Cintă Pinzaru, S., Müller, Cs., Tomšić, S., Venter, M. M., Cozar, B. I., and Glamuzina, B. (2015); New SERS feature of β-carotene: consequences for quantitative SERS analysis. *J. Raman Spectrosc.*, 46: 597– 604. doi: 10.1002/jrs.4713.

4. S. C. Pinzaru, C. Müller, S. Tomšić, M. M. Venter, I. Brezestean, S. Ljubimir and B. Glamuzina, *RSC Adv.*, 2016, 6, 42899 DOI: 10.1039/C6RA04255D RSC Adv., 2016,6, 42899-42910

5. BLUE BIOECONOMY – TOWARDS A STRONG AND SUSTAINABLE EU ALGAE SECTOR; EC, Brussels, 15.11.2022 SWD(2022) 361 final. *https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12780-Blue-bioeconomy-towards-a-strong-and-sustainable-EU-algae-sector_en*

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6. L. Mikac, I. Rigó, L. Himics, A. Tolić, M. Ivanda, M. Veres,
Surface-enhanced Raman spectroscopy for the detection of microplastics,
Applied Surface Science, 608, 023, 155239, ISSN 0169-4332, https://doi.org/10.1016/j.apsusc.2022.155239.

Dala si locul examenului: 18 iulie 2023, 2.30 pm; 11. Sept. 11.00 am
sala: „Hermann Oberth”, UBB, Kogalniceanu 1, RO-400084 Cluj-Napoca.