

## **Tematica și bibliografia pentru concursul de admitere la doctorat**

**Domeniul: Ingineria Mediului**

**Septembrie 2024**

**Prof. Dr. Habil. Florentina Munteanu**

### **Tematica**

1. Metode sustenabile pentru managementul deșeurilor solide
2. Metode de analiză și depoluarea apelor reziduale
3. Metode de diminuare a impactului deșeurilor solide asupra mediului

### **Bibliografie**

1. Nicholas P Cheremisinoff, Handbook of Solid Waste Management and Waste Minimization Technologies, 2003, ed. Butterworth-Heinemann, (ISBN: 0750675071)
2. Xuan-Thanh Bui, Chart Chiemchaisri, Takahiro Fujioka, Sunita Varjani (Editors), Water and Wastewater Treatment Technologies, 2019, ed. Springer, (ISSN 2522-8366)

**Prof. Dr. Habil. Lucian Copolovici**

### **Tematica:**

1. Tehnici analitice de determinare a metaboliților secundari
2. Compuși organici volatili din atmosferă
3. Ecosisteme protejate și biodiversitate

### **Bibliografie:**

1. Astrid Kannaste, Lucian Copolovici, Ulo Niinemets, Gas Chromatography–Mass Spectrometry Method for Determination of Biogenic Volatile Organic Compounds Emitted by Plants, in: Methods in Molecular Biology, Plant isoprenoids, Methods and Protocols, Humana Press, Springer New York, pp 161-169, 2014, ISBN 978-1-4939-0605-5.
2. Lucian Copolovici, Ulo Niinemets, Environmental impacts on plant volatile emission, in: Deciphering chemical language of plant communication, James D. Blande, R. Glinwood Ed., Springer, New York, 2016, ISBN 978-3-319-33498-1.
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10. Sturgen B., Ecologie teoretică, Casa de Editură Sarmis, Cluj Napoca, 1994.

## **CS I Dr. Habil. Loredana Soran**

### **Tematici**

1. Circuitul agenților poluanți în mediul înconjurător
2. Metode de decontaminarea mediului
3. Influența factorilor de stres asupra organismelor vegetale
4. Corelarea condițiilor meteorologice, a zonelor geografice și a factorilor de mediu cu compoziția plantelor
5. Formulări vegetale utilizate pentru creșterea rezistenței plantelor la factori de stres

### **Bibliografie**

1. C. Coman, M. L. Soran, A. Farkas, Chapter 1: Environmental sampling for investigation of antibiotics residues, microbial diversity and antibiotic resistance, In: Ghid metodologic de monitorizare a antibioticelor și a rezistenței la antibiotice în mediul înconjurător, edited by Cristian Coman in Romanian (pp. 25-39) and English (pp. 201-214), 2016. ©Accent, Cluj-Napoca. ISBN 978-606-561-165-8.
2. M. L. Soran, O. Opriș, I. Lung, Chapter 3: Investigation of environmental pollution with antibiotics, edited by Cristian Coman in Romanian (pp. 25-39) and English (pp. 201-214), 2016. ©Accent, Cluj-Napoca. ISBN 978-606-561-165-8.
3. S. Gocan, S. Cobzac, *Metode moderne de prelucrare a probelor organice*, Ed. Risoprint, Cluj-Napoca, 2006
4. Induction of stress volatiles and changes in essential oils content and composition upon microwave exposure in the *Ocimum basilicum* aromatic plant, Lung I, Soran M. L., Opriș O., Trușcă M. R. C., Niinemets Ü., Copolovici L., *Science of the Total Environment*, 2016, 569–570, 489–495
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## **Prof. Dr. Ing. Habil. Dorina Chambre**

### **Tematica:**

1. Valorificarea superioară a biomasei reziduale în scopul obținerii de biocarburanți
2. Metode termice de caracterizare a materiilor prime lipidice, a sistemelor lignocelulozice și a biocarburanților
3. Metode spectrale de caracterizare a materiilor prime lipidice, a sistemelor lignocelulozice și a biocarburanților

### **Bibliografie:**

1. Anju Dahiya (Editor), 2014, *Bioenergy: Biomass to Biofuels*, 1st edition, Academic Press, ISBN-10 : 0124079091, ISBN-13 : 978-0124079090
2. Anju Dahiya (Editor), 2020, *Bioenergy: Biomass to Biofuels and Waste to Energy*, 2nd edition, Academic Press, ISBN-10 : 0128154977, ISBN-13 : 978-0128154977

3. Rafael Luque Carol Lin Karen Wilson James Clark ( editors), 2016, Handbook of Biofuels Production, 2nd Edition, Woodhead Publishing, eBook ISBN: 9780081004562, Hardcover ISBN: 9780081004555
4. Michael E. Brown (Editor), 2004, Introduction to Thermal Analysis: Techniques and Applications, Kluwer Academic Publishers, eBook ISBN: 0-306-48404-8, Print ISBN: 1-4020-0472-9, (pp. 1-29, 44-49, 55-78, 139-152)
5. Emily Moore (Editor), Fourier Transform Infrared Spectroscopy (FTIR): Methods, Analysis, and Research Insights, 2016, Nova Science Publishers, ISBN-13 : 978-1536103830, ISBN-10 : 1536103837, ( Cap.2)
6. Dorina Rodica CHAMBRE, Mihaela TOCIU, Michaela Dina STĂNESCU, Crișan POPESCU, Influence of composition on the thermal behavior of oils extracted from the seeds of some Romanian grapes. *Journal of the Science of Food and Agriculture*, (2019); [99\(14\):6324-6332](#); (F.I. 2,422), <https://doi.org/10.1002/jsfa.9909>;
7. Diana Nicoleta RABA, Dorina Rodica CHAMBRE, Dana-Maria COPOLOVICI, Camelia MOLDOVAN, Lucian Octav COPOLOVICI, The influence of high-temperature heating on composition and thermo-oxidative stability of the oil extracted from Arabica coffee beans. *PLoS ONE*, (2018); [13\(7\): e0200314](#); (F.I. 2,776), [doi.org/10.1371/journal.pone.0200314](https://doi.org/10.1371/journal.pone.0200314);
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