MEMORIU ȘTIINȚIFIC

Drd. Grigore PȘENOVSCHI

Studii de doctorat

Perioada: 01.10.2020 – 30.09.2025

Conducător științific: Prof. Dr. Ing. Ioan Călinescu

Domeniu: Matematică și Științe ale Naturii /Inginerie Chimică

Titlul tezei de doctorat: „Piroliza Deşeurilor de Biomasa sau de Plastic” – „Pyrolysis of Biomass or Plastic Waste”

Activitate științifică

A. Lista de lucrări științifice (articole în reviste sau volume)

Publicaţii în reviste științifice cotate Web of Science

1. **Pşenovschi, G**., Calinescu*, I., Fiti, A., Chisega-Negrila, C-G, „Catalytic pyrolysis of polypropylene waste”, U.P.B Sci. Bull., Series B, **2025**, **acceptat spre publicare**.
2. **Psenovschi, G.**, Calinescu, I., Fiti, A., Chisega-Negrila, C. G., Ionascu, S. L., & Barbes, L. „Microwave-Assisted Pyrolysis of Polyethylene and Polypropylene from End-of-Life Vehicles: Hydrogen Production and Energy Valorization” *Sustainability*, **2025**; *17*(13), 6196. ; https://doi.org/10.3390/su17136196; WOS:001527569400001 (F.I.=3.3)
3. Calinescu I, **Psenovschi G**, Cojocaru M, Chisega-Negrila CG, Albulescu C, Brebu M, Trifan A, Ignat ND, Chipurici P. Catalytic Pyrolysis of Low-Density Polyethylene Waste. *Sustainability*. **2024**; 16(16):6788; https://doi.org/10.3390/su16166788; WOS:001307534200001 (F.I.=3.3)
4. Gavrila, Adina I., Anamaria Vartolomei, Ioan Calinescu, Mircea Vinatoru, Oana C. Parvulescu, **Grigore Psenovschi**, Petre Chipurici, and Adrian Trifan. "Ultrasound-assisted alkaline Pretreatment of biomass to enhance the extraction yield of valuable chemicals." *Agronomy,* **2024**, 14, no. 5: 903; https://doi.org/10.3390/agronomy14050903; WOS:001233105800001 (F.I.=3.4)
5. Vasilievici, G., Ghimiș, S. B., **Pșenovschi, G.**, & Sîrbu, M.. „Thermo-Catalytic Pyrolysis Of Lignosulfonate From The Sulfite Process”. *Studia Universitatis Babes-Bolyai, Chemia*, **2023**, *68* (4). (F.I.=0.5)

Publicaţii în reviste științifice indexate BDI

1. Mirt, A. L., Vlaicu, A., Ciltea-Udrescu, M., **Psenovschi**, G., & Vasilievici, G. (2023, December). Catalytic Pyrolysis of Reed for Bio-Oil and Biochar Production. In Proceedings (Vol. 90, No. 1, p. 8). MDPI. https://doi.org/10.3390/proceedings2023090008
2. Vlaicu, A., Mîrț, A. L., **Psenovschi, G.**, Sârbu, M., Stoian, R., & Vasilievici, G. (2023). Catalytic Pyrolysis of Lignin from Residual Red Liquor. Chemistry Proceedings, 13(1), 15. https://doi.org/10.3390/chemproc2023013015
3. **Pșenovschi, G**., Cîlțea-Udrescu, M., Mîrț, A. L., Neamțu, C., & Vasilievici, G. (2024, February). Catalytic Pyrolysis of Waste Biomass. In Proceedings (Vol. 90, No. 1, p. 46). MDPI. https://doi.org/10.3390/proceedings2023090046

B. Participări la conferințe/workshop-uri

1. **Grigore Psenovschi** , Petre Chipurici, Mihaela Cojocaru, Ciprian Chisega Negrila, Anca Paulenco, Ioan Calinescu „Conversion of Waste Plastics to Fuels Through Pyrolysis” 20th

International Symposium "Priorities of Chemistry for a Sustainable Development" PRIOCHEM, Bucharest, Romania, 2024

2. **Grigore Psenovschi**, Ioan Călinescu, Petre Chipurici, Mihaela Cojocaru, Ciprian Chisega Negrilă, „Fuels from Waste Plastics by Pyrolysis", SICHEM 2024.
3. Mirt L., Vlaicu A., Ciltea-Udrescu M., **Psenovschi G.**, Vasilievici G. „Catalytic pyrolysis of reed for bio-oil and biochar production". 19th International Symposium "Priorities of Chemistry for a Sustainable Development" PRIOCHEM, Bucharest, Romania, 11-13 October 2023.
4. **Psenovschi G.**, Ciltea-Udrescu M., Mirt L., Neamtu C., Vasilievici G. „Catalytic pyrolysis of waste biomass". 5th Exploratory Workshop NeXT-Chem: Innovative cross-sectorial technologies, Bucharest, Romania, 22-23 May, 2023.

C. Proiecte de cercetare științifică

1. Excellence research center fostering climate neutrality and resilience through agriculture – AgroCliN; 2026-2031.
2. Science for future researchers: experiments and knowledge - ȘTIE; 2025-2026.
3. Bee-hive based active principles intensified extraction and smart encapsulation for controlled release: a synergistic bioeconomy and bioengineering approach – BeeProdCaps 2025-2027.
4. Developing new materials for an integrated approach to water resources protection: from detection to decontamination – AQUAMAT; 2023-2026.
5. Interconnectable modular technological platforms for optimized conversion of lateral flows specific to the Romanian bioeconomy into market-required bioproducts – InteGral; 2023-2026.
6. Supporting the competitiveness and excellence of INCDCP-ICECHIM research and innovation in the area of bioeconomy and related fields - NeXT-BExcel; 2021-2024.
7. Energetic efficiency biogas plants improvement by integrated system: biogas-microalgae-biofuels in frame of biorefinery concept – AlgalBiogazConceptEnergie; 2018-2020.
8. Microalgal systems used to reduce CO2 emissions from biomass fermentation - ALGAE-CO2; 2016-2018.

A. Stagii de perfecționare

From Blue to Green: Valorization of Marine Residue-based Materials as Fertilizers" under the project "Sustainable Utilization of Marine Resources to Foster Green Plant Production in Europe – MARIGREEN", May 27–31, 2024, Bucharest

B. Cursuri de perfecționare

Audit tehnologic – Evaluarea modului de valorificare a rezultatelor de CD, Analiza capabilitatiolor operatorilor economici in domeniul CDI, 2022, Bucuresti.

C. Membru în comitete de organizare sau comitete științifice ale conferințelor/colective de redacție ale unor reviste

International Scientific Conference - *Applications of Chemistry in Nanosciences and Biomaterials Engineering (NanoBioMat)* – 2025-2026 - Organizing Committee.

Student-doct

