

## LISTĂ PUBLICAȚII EXTINSĂ

### I. TEZĂ DE DOCTORAT (T)

**T 1. Macavei, M. G.** *Studiu pentru optimizarea procesului de piroliză în scopul valorificării energetice a deșeurilor polimerice. Teză de doctorat*, Universitatea Națională de Știință și Tehnologie POLITEHNICA București, Facultatea de Energetică, domeniul Inginerie Energetică, coordonator științific: Prof. dr. ing. Cosmin Mărculescu, susținută public la data de 19 decembrie 2025. Cod dosar: [F-CA-72653/19.12.2025](https://doi.org/10.3390/pr12020358).

### II. ARTICOLE PUBLICATE (R,V)

- Ris 1. Macavei, M. G.,** Gheorghe, V. C., Ionescu, G., Volceanov, A., Pătrașcu, R., Mărculescu, C., & Magdziarz, A. (2024). *Thermochemical Conversion of Animal-Derived Waste: A Mini-Review with a Focus on Chicken Bone Waste*. **Processes**, 12(2), 358. <https://doi.org/10.3390/pr12020358> [Q3, I.F. 2.8, WOS:001172737800001, eISSN 2227-9717]
- Ris 2. Ionescu, G., Macavei, M. G.,** Pătrașcu, M., Volceanov, A., Pătrașcu, R., Werle, S., Mlonka-Mędrala, A., Coman, A. E., Magdziarz, A., & Mărculescu, C. (2025). *New integrated processing of chicken bone waste using enzymatic pretreatment and slow pyrolysis to produce green chemicals*. **Energy Conversion and Management**, 323, 119281. <https://doi.org/10.1016/j.enconman.2024.119281> [Q1, I.F. 10.9, WOS:001359640100001, eISSN 1879-2227]
- Ris 3. Sandu, M. R., Boldor, D., Macavei, M. G.,** Magdziarz, A., & Mărculescu, C. (2025). *Heat and flow dynamics in biomass reactors under pyrolysis conditions: Computational insights*. **Renewable Energy**, 244, 122691. <https://doi.org/10.1016/j.renene.2025.122691> [Q1, I.F. 9.1, WOS:001430005600001, eISSN 1879-0682]
- Ris 4. Macavei, M. G.,** Pătrașcu, M., Ionescu, G., et al. (2025). *Bio-based material as microwave susceptor and catalyst support for plastic waste microwave-assisted pyrolysis*. **Clean Technologies and Environmental Policy**. <https://doi.org/10.1007/s10098-025-03275-w> [Q2, I.F. 3.9, WOS:001544205900001, eISSN 1618-9558]
- Ris 5. Macavei, M. G.,** Ionescu, G., & Mărculescu, C. (2025). *Kinetic investigation of low-density polyethylene pyrolysis: Effects of heating rate*. **UPB Scientific Bulletin, Series C**, 87(3), 509–522. <https://doi.org/10.5281/zenodo.17100244> [Q4, Revistă indexată WOS, WOS:001562110500027, eISSN 2286-3559]
- Ris 6. Macavei, M. G.,** Pătrașcu, R., Ionescu, G., & Mărculescu, C. (2025). *Energy recovery from bone waste gasification*. **Energy Environment Efficiency Resources Globalization**, 11(4), 118–130. <https://doi.org/10.37410/EMERG.2025.4.07> [Revistă indexată BDI/Scopus, EBSCO, Index Copernicus International, eISSN 2668-7003]
- Ris 7. Ionescu, G., Macavei, M. G.,** Pătrașcu, M., Mlonka-Mędrala, A., Petcu, G., Sobek, S., Magdziarz, A., & Mărculescu, C. (2026). *Bio-based compounds from synergistic processing of bone waste via advanced ultrasound assisted-enzymatic pretreatment and fast pyrolysis*. **Bioresource Technology**, 455, 134860. <https://doi.org/10.1016/J.BIORTECH.2026.134860> [Q1, I.F. 9, WOS:001775458100001, eISSN 1873-2976]
- Vi 1. Macavei, M. G.,** Pătrașcu, R., & Mărculescu, C. (2026). *Energy recovery and economic viability of animal-derived waste air gasification for syngas production*. **International Conference of Management and Industrial Engineering**, 12, 538–545. <https://doi.org/10.56177/12icmie2025.197> [Volum al unei manifestări științifice internaționale recunoscute. ISSN 2344-0937]

### III. COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E)

- E 1. Ionescu, G., Pătrașcu, M., Macavei, M. G.,** Volceanov, A., Pătrașcu, R., Mărculescu, C., & Magdziarz, A. (2024). *Effect of pyrolysis conditions on the yield distribution and properties derived from chicken bone waste*. **19th SDEWES Conference**.
- E 2. Pătrașcu, M., Ionescu, G., Macavei, M. G.,** Volceanov, A., Magdziarz, A., & Mărculescu, C. (2024). *Microwave-assisted treatment of chicken bone waste and biochar*. **19th SDEWES Conference**.

- E 3. Macavei, M. G.,** Ionescu, G., Magdziarz, A., & Mărculescu, C. (2024). *Influence of fast pyrolysis operating conditions on products derived from organic residues*. **FOREN 2024**.
- E 4. Magdziarz, A.,** Mlonka-Mędrala, A., Werle, S., Sobek, S., **Macavei, M. G.,** Pătrașcu, M., Ionescu, G., & Mărculescu, C. (2024). *Enhancing value from poultry bone waste: Chemical and thermal treatment approaches for high-quality product development*. **ECOS 2024**.
- E 5. Macavei, M. G.,** Boldor, D., Magdziarz, A., & Mărculescu, C. (2025). *Combined thermochemical processing of organic residues for enhanced hydrogen-rich syngas production*. **ISWA 2025 Conference**.