

- **Personal informations**

✉ [lupu.alexandra@icmpp.ro](mailto:lupu.alexandra@icmpp.ro)

[alexandra.lupu97@yahoo.com](mailto:alexandra.lupu97@yahoo.com)

Date of birth 16/12/1997 | Nationality Romanian

Researcher ID: HRB-4497-2023

Scopus Author ID:58075616400

ORCID: 0000-0002-0977-5414

- **Education**

**1.11.2022 – Present:** PhD Studies at School of Chemical Sciences of the Romanian Academy, branch “Petru Poni” Institute of Macromolecular Chemistry of Iasi, Romania. PhD thesis title: *Bio-inspired hydrogels for biomedical and therapeutical applications.*

**1.10.2020 – 1.07.2022:** Master’s degree (MSc) – Chemistry of Cosmetic and Pharmaceutical Products - Faculty of Chemistry, “Alexandru Ioan Cuza” University of Iasi, Romania.

**15.07 – 15.09.2021:** Erasmus+ mobility at University of Chemical Technology and Metallurgy, Sofia, Bulgaria.

**1.10.2017 – 1.07.2020:** Bachelor’s degree (BSc) –Technological Biochemistry, Faculty of Chemistry, “Alexandru Ioan Cuza” University of Iasi, Roomania.

- **Professional experience**

**01.01.2025 – Present:** Research Assistant at “Petru Poni” Institute of Macromolecular Chemistry of Iasi, Romania.

**02.11.2020 – 31.10.2022:** Team member: *Bionspired Peptide-Based Scaffold Assemblies*, PN-III-P2-2.1-PED-2019-2484, Contract 494 PED / 2020.

- **Publications**

**Number of publications: 9; H-Index (Web of Science): 5; Number of citations: 79 (including self-citations)**

**A. Lupu**, L.M. Gradinaru, M. Balan-Porcarasu, L. Darie-Ion, B. A. Petre, V.R. Gradinaru, The hidden power of a novel collagen octapeptide: Unveiling its antioxidant and cofactors releasing capacity from polyurethane based systems. *Reactive and Functional Polymers*, 2025, 207, 106131. <https://doi.org/10.1016/j.reactfunctpolym.2024.106131>

**A. Lupu**, M. Bercea, M. Avadanei, L.M. Gradinaru, L.E. Nita, V.R. Gradinaru, Temperature Sensitive Pluronic F127-Based Gels Incorporating Natural Therapeutic Agents. *Macromol. Mater. Eng.*, 2024, 2400341. <https://doi.org/10.1002/mame.202400341>

Bercea M., **Lupu A.**, Recent Insights into Glucose-Responsive Concanavalin A-Based Smart Hydrogels for Controlled Insulin Delivery. *Gels* 2024, 10, 260. <https://doi.org/10.3390/gels10040260>

Bercea M., Plugariu I.A., Dinu M.V., Pelin I. M., **Lupu A.**, Bele A., Gradinaru V.R., Poly(Vinyl Alcohol)/ Bovine Serum Albumin Hybrid Hydrogels with Tunable Mechanical Properties. *Polymers* 2023, 15, 4611. <https://doi.org/10.3390/polym15234611>

**Lupu A.**, Gradinaru L.M., Rusu D., Bercea M., Self-Healing of Pluronic® F127 Hydrogels in the Presence of Various Polysaccharides. *Gels* 2023, 9, 719. <https://doi.org/10.3390/gels9090719>

Plugariu I.A., Bercea M., Gradinaru L.M., Rusu D., **Lupu A.**, Poly(vinyl alcohol)/ Pullulan Composite Hydrogels as a Potential Platform for Wound Dressing Applications. *Gels* 2023, 9, 580. <https://doi.org/10.3390/gels9070580>

**Lupu, A.**; Gradinaru, L.M.; Gradinaru, V.R.; Bercea, M. Diversity of Bioinspired hydrogels: From Structure to Applications. *Gels* 2023, 9, 376. <https://doi.org/10.3390/gels9050376>

Gradinaru, L.M.; Bercea, M.; **Lupu, A.**; Gradinaru, V.R. Development of Polyurethane/ Peptide-Based Carriers with Self-Healing Properties. *Polymers* 2023, 15, 1697. <https://doi.org/10.3390/polym15071697>

**Lupu, A.**; Rosca, I.; Gradinaru, V.R.; Bercea, M. Temperature Induced Gelation and Antimicrobial Properties of Pluronic F127 Based Systems. *Polymers* 2023, 15, 355. <https://doi.org/10.3390/polym15020355>

- **Conference participations**

**5 poster presentations:**

- **A. Lupu**, R. Grădinaru, Fluorimetric assay of lipases, Scientific communication session for BSc, MSc and PhD students, X Edition, Iași, June 20-21 2019.

- **A. Lupu**, V.R. Grădinaru, B.A. Petre, L. Darie-Ion, Synthesis and characterization of a collagen derived octapeptide, 22nd Romanian International Conference on Chemistry and Chemical Engineering, Sinaia, România, September 7-9 2022.

- **A. Lupu**, M. Bercea, The viscosity of gelatin solutions in the presence of different macromolecular cosolutes, 12th Liquid Matter Conference, Mainz, Germania, September 22-27 2024.

- **A. Lupu**, L.M. Gradinaru, V.R. Gradinaru, M. Bercea, Gelling behavior and gel properties of gelatin/polymer mixtures, 12th Liquid Matter Conference, Mainz, Germania, September 22-27 2024.

- **A. Lupu**, L.M. Gradinaru, M. Avadanei, V.R. Gradinaru, D. Rusu, M. Bercea, Poly(Vinyl Alcohol)/Polyurethane-Based Hydrogels For Thiamine Release, 5th Edition OPEN DOOR TO THE FUTURE Scientific Communications of Young Researchers, MacroYouth 2024, Iasi, Romania, November 15 2024.

**6 oral presentations:**

- **A. Lupu**, L. Darie-Ion, Ș.C. Jitaru, B.A. Petre, C.Ș. Mocanu, G. Drochioiu, V.R. Grădinaru, A collagen inspired octapeptide with aromatic moieties, Student Scientific Communications Session, Galați, România, 27-28 May 2021.

- **A. Lupu**, B.A. Petre, V.R. Grădinaru, Interaction studies of collagen derived peptide and Copper (II) ions, Student Scientific Communications Session, Galați, România, 26-27 May 2022.

- S.C. Jitaru, **A. Lupu**, V.R. Gradinaru, A microplate assay for tracking peptide-alginate or protein-alginate gelation assisted by glutaraldehyde, International Conference on Rheology:

Understanding the Viscoelastic Behavior of Materials – Progress and Challenges, Iasi, Romania, 26 mai 2022.

- **A. Lupu**, I. Rosca, V.R. Gradinaru, M. Bercea, Rheological behaviour of antimicrobial Pluronic F127 gels, European Young Rheologists Symposium – EYRS 2023, On-line participation, 8 - 9 May 2023.

- **A. Lupu**, I. Rosca, V.R. Gradinaru, M. Bercea, Thermosensitive Pluronic® F127 hydrogels with selfhealing ability and induced antimicrobial properties, MacroYouth 2023 - ICMPP – OPEN DOOR TO THE FUTURE SCIENTIFIC COMMUNICATIONS OF YOUNG RESEARCHERS 4th Edition, Iasi, Romania, November 17 2023.

- **A. Lupu**, I. Rosca, V.R. Gradinaru, M. Bercea, Strategies to Improve the Flow Behavior and Antimicrobial Properties of Pluronic® F127-Based Injectable Hydrogels, “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2023 – Winter Edition, Bucuresti, Romania, November 22-24, 2023.

- **Membership and activities in professional associations**

Member of *Romanian Society of Rheology* since May 2022.