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L I S T A
LUCRĂRILOR ŞTIINŢIFICE

A. Teza de doctorat

Analytical Development and Biochemical Application of Mass Spectrometry in Combination with Immunoaffinity Methods for Identification and Structural Characterisation of Protein Nitration, May 28, 2008, http://nbn-resolving.de/urn:nbn:de:bsz:352-opus-85026

B. Cărţi și capitole în cărţi publicate în ultimii 5 ani (2022-2026)

- **N/A**

C. Lucrări indexate ISI/BDI publicate în ultimii 5 ani (2022-2026)

1. C. Frîncul, A.Ghinet, S. Shova, C.-I. Ciobanu, A. S. Nica, B.A. Petre, E. Bîcu, D. Belei, Regioselective C-alkylation in a series of functionalized 1,2,3-triazoles: An unexpected preference over O-alkylation, Journal of Molecular Structure, 1355, 2026, 144999, https://doi.org/10.1016/j.molstruc.2025.144999;

2. Manole, O.-M.; Petre, B.A.; Onofrei, V. Proteomic Insights into Venous Thromboembolism. *Med. Sci.* **2026**, *14*, 94. https://doi.org/10.3390/medsci14010094;

3. Petre, B. A. 2026. " Proteomics of Nitrotyrosine: Integrating Mass Spectrometry and Immunodetection in Redox-Driven Pathology." Mass Spectrometry Reviews 0: e70020. https://doi.org/10.1002/mas.70020;

4. Gradinaru, V.R.; Bercea, M.; Gradinaru, L.M.; Puiu, A.; Lupu, A.; **Petre, B.A**. Targeting Injectable Hydrogels: The Role of Diphenylalanine Peptide Derivative in the Gelation Dynamics of Pluronic® F127, Polymers **2025**, 17, 930. https://doi.org/10.3390/polym17070930;

5. 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, 207, **2025**, 106131 https://doi.org/10.1016/j.reactfunctpolym.2024.106131;

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7. L. Grigore-Gurgu, M. Cotârleț, M. Pihurov, B. Păcularu-Burada, A. M. Vasile, E. Enachi, C. L. Chițescu, **B.A. Petre**, L. Dumitrașcu, D. Borda, N. Stănciuc, G.-E. Bahrim, Lactiplantibacillus plantarum and Lactiplantibacillus paraplantarum postbiotics: Assessment of the biotic-derived metabolites with cytocompatibility and antitumoral potential, Food Bioscience, **2024**, 59, 103863, doi.org/10.1016/j.fbio.2024.103863;

8. Jitaru, S.-C.; Enache, A.-C.; Cojocaru, C.; Drochioiu, G.; **Petre, B.-A**.; Gradinaru, V.-R., "Self-Assembly of a Novel Pentapeptide into Hydrogelated Dendritic Architecture: Synthesis, Properties, Molecular Docking and Prospective Applications" Gels **2024**, 10, 86. https://doi.org/10.3390/gels10020086;

9. Jayathirtha, M.; Jayaweera, T.; Whitham, D.; Sullivan, I.; **Petre, B.A***.; Darie, C.C.; Neagu, A.-N. Two-Dimensional-PAGE Coupled with nLC-MS/MS-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in MCF7 Breast Cancer Cells Transfected for JTB Protein Silencing. Molecules (**2023**), 28, 7501. https://doi.org/10.3390/molecules28227501;

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13. S. C. Jitaru, A. Neamtu, G. Drochioiu, L. Darie-Ion, I. Stoica, **B.-A. Petre***, V.-R. Gradinaru, A diphenylalanine based pentapeptide with fibrillating self-assembling properties, Pharmaceutics (**2023**), 15(2):371, doi.org/10.3390/pharmaceutics15020371;

14. Glocker, MO; Lupu, LM; **Petre, BA**, „Michael Przybylski (1948-2023) Devoted Half a Century to Mass Spectrometry", Journal of the American Society for Mass Spectrometry, 2023, 34(9),10.1021/jasms.3c00231.

15. L. Darie-Ion, A. Neamtu, R. Iliescu, **B. A. Petre***, Immuno-Affinity Study of Oxidative Tyrosine Containing Peptides, 2022, International Journal of Peptide Research and Therapeutics (**2022**) 28:41, doi.org/10.1007/s10989-021-10329-2;

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17. 1.3. C. S. Mocanu, L. Darie-Ion, **B. A. Petre**, V. R. Gradinaru, G Drochioiu, A computational study of metal ions interaction with amyloid-b 1–42 peptide structure in hyperpyrexia: Implications for Alzheimer disease, Journal of King Saud University – Science 34 (**2022**) 102184, https://doi.org/10.1016/j.jksus.2022.102184;

18. Iavorschi, M.; Lupăescu, A.-V.; Darie-Ion, L.; Indeykina, M.; Hitruc, G.E.; **Petre, B.A***. Cu and Zn Interactions with Peptides Revealed by High-Resolution Mass Spectrometry.

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19. Darie-Ion, L.; Whitham, D.; Jayathirtha, M.; Rai, Y.; Neagu, A.-N.; Darie, C.C.; **Petre, B.A***. Applications of MALDI-MS/MS-Based Proteomics in Biomedical Research. Molecules, (**2022**), 27, 6196. https://doi.org/10.3390/molecules27196196;

20. C. S. Mocanu, **B. A. Petre**, L. Darie Ion, G. Drochioiu, M. Niculaua, I. Stoica, M. Homocianu, L. E. Nita, and V. R. Gradinaru, Structural Characterization of a New Collagen Biomimetic Octapeptide with Nanoscale Self-assembly Potential: Experimental and Theoretical Approaches, ChemPlusChem, (**2022**), 10.1002/cplu.202100462.

21. A-N. Neagu, M. Jayathirtha, D. Whitham, P. Mutsengi, I. Sullivan, **B-A. Petre**, C. C. Darie, Proteomics-Based Identification of Dysregulated Proteins in Breast Cancer, Proteomes (**2022**), 10, 35. doi.org/10.3390/proteomes10040035;

22. A.-V. Lupaescu , L. Ion-Darie , **B. A. Petre*** , F. Ursachi and M. Oroian, Proteomic analysis and antioxidant evaluation of ultrasound – assisted pollen extracts, ACTA CHEMICA IASI, 30_2, 138-150 (**2022**), DOI: 10.47743/achi-2022-2-0007;

D. Lucrări publicate în ultimii 5 ani (2022-2026) în reviste şi volume de conferinţe cu referenţi (neindexate)

- Reviste

1. International Scientific Conference on EARTH & PLANETARY Science (SGEM Vienna GREEN), **2023**; Advances in Biotechnology – Volum in extenso, A-V. Lupaescu, N. Flutur, **B-A. Petre**, M. Iavorschi, F. Ursachi, Enhancing the antioxidant activity of chamomile: exploring the impact of ultrasound on protein extraction;

E. Selecţie cu maximum 20 lucrări în volume de conferinţe

1. A Medjour A., Hammadi M., **Petre B-A**., Salhi I., Dbara M., Hamidechi M. A.,Comparative Study of the Physicochemical Characteristics of Milk Collected from Camels (Camelus Dromedarius) Conducted in Two Breeding Systems (Extensive And Semi-Intensive), (**2023**), 13(2), DOI: 10.31924/nrsd.v13i2.129, ISSN-2066-6276 (print)/ 2601-5676 (online),

2. Jitaru, S.C., Enache, A.C., Drochioiu G., **Petre, B.A**., Gradinaru, V.R., Dendritic-like Self-assembling Pentapeptide with Potential Applications in Emerging Biotechnologies; in International Conference on e-Health and Bioengineering, EHB **2023** - 11th Edition, Bucharest, Romania, 9-10 November 2023;

3. Lupăescu A.V., **Petre B.A**., Iavorschi M., Oroian M.. Analysis of protein content and evaluation of antioxidant activity of linden and hawthorn pollen. In 22th International Multidisciplinary Scientific GeoConference SGEM, Albena, Bulgaria, **2022** Conference

proceedings ISSN 1314-2704, Advances in Biotechnology;

4. Jayaweera, T; Lon, LD; **Petre, BA**; Darie, C, Multiplex Mass Spectrometry for Enzymatic Activities Screening of Lysosomal Storage Diseases, FASEB JOURNAL – in extenso Experimental Biology Meeting (EB), **2022**;

F. Brevete obţinute în întreaga activitate

N/A

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26.10.2026