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L I S T A LUCRĂRILOR ȘTIINȚIFICE

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. Cărți și capitole în cărți publicate în ultimii 5 ani (2021-2025)

- N/A

C. Lucrări indexate ISI/BDI publicate în ultimii 5 ani (2021-2025)

1. 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>;
2. 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**, 106131 <https://doi.org/10.1016/j.reactfunctpolym.2024.106131>;
3. A. Medjour, **B.-A. Petre***, M. Hammadi, I. Salhi, M. Dbara and M. A. Hamidechi, Impact of breeding system transition on camel milk caseins, Int. J. of Dairy Technology, **(2024)**, <https://doi.org/10.1111/1471-0307.13075>;
4. 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;
5. 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>;
6. 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>;
 7. Jayathirtha, M.; Jayaweera, T.; Whitham, D.; **Petre, B.A.**; Neagu, A.-N.; Darie, C.C. Two-Dimensional Polyacrylamide Gel Electrophoresis Coupled with Nanoliquid Chromatography–Tandem Mass Spectrometry-Based Identification of Differentially Expressed Proteins and Tumorigenic Pathways in the MCF7 Breast Cancer Cell Line Transfected for Jumping Translocation Breakpoint Protein Overexpression. *Int. J. Mol. Sci.* **(2023)**, *24*, 14714. <https://doi.org/10.3390/ijms241914714>;
 8. Jung, J. E., Cárdenas V., **Petre B-A***, Epitope identification of a Lys63 linkage ubiquitin antibody by mass spectrometric epitope excision and extraction approaches. *Eur. journal of mass spectrometry*, **(2023)**, doi:10.1177/14690667231199012;
 9. Darie-Ion L, **Petre BA***, An update on multiplexed mass spectrometry- based lysosomal storage disease diagnosis. *Mass Spectrometry Reviews*, **(2023)**, 1-15, <https://doi.org/10.1002/mas.21864>;
 10. 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;
 11. 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.
 12. 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;
 13. A.-N. Neagu, M. Jayathirtha, E. Baxter, M. Donnelly, **B. A. Petre** and C. C. Darie, Applications of Tandem Mass Spectrometry (MS/MS) in Protein Analysis for Biomedical Research, *Molecules* **(2022)**, *27*, 2411. <https://doi.org/10.3390/molecules27082411>;
 14. 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>;
 15. 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. *Pharmaceutics*, **2022**, *15*, 1096. <https://doi.org/10.3390/ph15091096>;
 16. 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>;

17. 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.
18. 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;
19. 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;
20. L. Darie-Ion, M. Jayathirtha, G. E. Hitruc, M.-M. Zaharia, R. V. Gradinaru, C. C. Darie, A. Pui and **B. A. Petre**, A Proteomic Approach to Identify Zein Proteins upon Eco-Friendly Ultrasound-Based Extraction, 2021, *Biomolecules*, 11, 1838. doi.org/10.3390/biom11121838;
21. D.-A. Blaj, M. Balan-Porcarasu, **B. A. Petre**, V. Harabagiu, C. Peptu, MALDI mass spectrometry monitoring of cyclodextrin-oligolactide derivatives synthesis, *Polymer*, 2021, 233, doi.org/10.1016/j.polymer.2021.124186;
22. C. A. Okai, M. Wölter, M. Russ, C. Koy, **B.A. Petre**, W. Rath, U. Pecks, M. O. Glocker. Profiling of intact blood proteins by matrix-assisted laser desorption/ionization mass spectrometry without the need for freezing – Dried serum spots as future clinical tools for patient screening. *Rapid Commun Mass Spectrom*, 2021, 35:e9121, <https://doi.org/10.1002/rcm.9121>;
23. M. Jayathirtha, E. J. Dupree, Z. Manzoor, B. Larose, Z. Sechrist, A. Neagu, **B-A. Petre**, C. C. Darie, (2021), Mass Spectrometric (MS) Analysis of Proteins and Peptide, *Current Protein & Peptide Science*; doi: 0.2174/1389203721666200726223336;
24. Maeser S, **Petre BA**, Ion L, Rawer S, Kohlschütter A, Santorelli FM, Simonati A, Schulz A, Przybylski M., (2021), Enzymatic diagnosis of neuronal lipofuscinoses in dried blood spots using substrates for concomitant tandem mass spectrometry and fluorimetry. *J Mass Spectrom.* Oct 29:e4675. doi: 10.1002/jms.4675;

D. Lucrări publicate în ultimii 5 ani (2021-2025) în reviste și volume de conferințe cu referenți (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;

- Selecție cu maximum 20 lucrări în volume de conferințe

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**;
5. Darie-Ion, L., Drochioiu, G., Jitaru, S.C., Mocanu, C.S., **Petre, B.A.***, “Drug-Peptide Conjugates: Solid Phase Synthesis and Mass Spectrometric Characterization”XXIth International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management, SGEM **2021**, vol 20: 259-266, ISBN: 978-619-7603-12-5, ISSN: 1314-2704;

E. Brevete obținute în întreaga activitate
N/A

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