

LISTA DE PUBLICAȚII

Titlul tezei de doctorat: „Studiul chitinazelor cu activitate și stabilitate crescute prin tehnici de evoluție direcționată”, Universitatea de Vest din Timișoara, calificativul *Summa cum laude*, Coordonator științific: Prof. Dr. Vasile OSTAFE, 2022.

ARTICOLE ISI (Indexed in Web of Science)

1. Toader Oana Roxana, Agachi Bianca-Vanesa, Olariu Andra, Duda-Seiman Corina, **Menghiu Gheorghita**, Ostafe Vasile, *Rapid and sensitive detection of amino groups in chitosan oligomers using aqueous ninhydrin and McIlvaine buffer*, *Molecules*, 2026, 31(7), 1101. DOI:10.3390/molecules31071101
2. Emanuela Stan, Camelia-Oana Muresan, Raluca Dumache, Veronica Ciocan, Stefania Ungureanu, Alexandra Mihailescu, Ecaterina Daescu, Corina Duda-Seiman, **Gheorghita Menghiu**, Delia Hutanu, Alexandra Enache, *From Jane Doe to Sofia: DNA extraction protocol from bones and teeth without liquid nitrogen for identifying skeletal remain*, *International Journal of Molecular Sciences*, 2024, 25(10), 5114. DOI:10.3390/ijms25105114
3. Vulpe Constantina Bianca, Boros Bianca Vanesa, Matica Mariana Adina, **Menghiu Gheorghita**, Roman, Diana Larisa, Dascalu Daniela, Kovacevic Renata, Ostafe Vasile, *Hydrochemical and ecotoxicological characterisation of water samples from Moldova Noua area, Romania*, *Ecological Chemistry and Engineering S*, 2023, 30(3), pp 357-372. DOI:10.2478/eces-2023-0038
4. Constantina Bianca Vulpe, Mariana Adina Matica, Renata Kovačević, Daniela Dascalu, Zoran Stevanovic, Adriana Isvoran, Vasile Ostafe, **Gheorghita Menghiu**, *Copper accumulation efficiency in different recombinant microorganism strains available for bioremediation of heavy metal-polluted waters*, *International Journal of Molecular Sciences*, 2023, 24(8):7575. DOI:10.3390/ijms24087575
5. **Gheorghita Menghiu**, Radivoje Prodanovic, Marija Blazic, Manuela Mincea, Cristina Moraru, Vasile Ostafe, *Non-conventional expression of recombinant chitinase A originated from *Bacillus licheniformis* DSM8785, in *Saccharomyces cerevisiae* INVSc1*, *Journal of the Serbian Chemical Society*, 2022, 87(6) pp 677-692. DOI:10.2298/JSC210913017M
6. **Gheorghita Menghiu**, Vasile Ostafe, Radivoje Prodanovic, Rainer Fischer, Raluca Ostafe, *A high-throughput screening system based on fluorescence-activated cell sorting for the directed evolution of chitinase A*, *International Journal of Molecular Sciences*, 2021, 22(6): p. 3041. DOI:10.3390/ijms22063041
7. Zoran Stevanovic, Renata Kovacevic, Radmila Markovic, Vojka Gardic, Bianca Constantina Vulpe, Bianca Boros, **Gheorghita Menghiu**, *State of the surface waters in cross border region of eastern Serbia and Caras Severin county – Moldova Noua in Romania*, *Studia UBB Chemia*, 2021, 66(4), pp 309-328. DOI:10.24193/subbchem.2021.4.23
8. Cristina Moraru, Manuela Mincea, **Gheorghita Menghiu**, Vasile Ostafe, *Understanding the factors influencing chitosan-based nanoparticles-protein corona interaction and drug delivery applications*, *Molecules*, 2020, 25(20), p 4758. DOI:10.3390/molecules25204758
9. **Gheorghita Menghiu**, Vasile Ostafe, Radivoje Prodanovic, Rainer Fischer, Raluca Ostafe, *Biochemical characterization of chitinase A from *Bacillus licheniformis* DSM8785 expressed in *Pichia pastoris* KM71H*, *Protein Expression and Purification*, 2019, 154, pp 25-32. DOI:10.1016/j.pep.2018.09.007
10. **Gheorghita Menghiu**, Lauriana-Eunice Zbîrcea, Vasile Ostafe, *Use of factorial design to optimize the efficiency of bacterial transformation*, *Studia UBB Chemia*, 2019, 64, pp 23-34. DOI:10.24193/subbchem.2019.2.02
11. **Gheorghita Menghiu**, Amalia Nicoleta Iancu, Vasile Ostafe, *A fast and sensitive zymography method of peroxidase activity determination using sodium acetate buffer*, *Studia UBB Chemia*, 2019, 64, pp 536-539. DOI:10.24193/subbchem.2019.2.46

1. Camelia-Loredana Miclea, Constantina Bianca Vulpe, Oana Roxana Toader, Corina Duda-Seiman, Vasile Ostafe, **Gheorghita Menghiu**, *Effects of aqueous chili pepper extracts on various strains of microorganisms*, Annals of West University of Timișoara, ser. Biology, 2025, vol. 28 (1), pp.111-122
2. Aura-Stefania Jilcovici, Constantina Bianca Vulpe, Oana Roxana Toader, Corina Duda-Seiman, Vasile Ostafe, **Gheorghita Menghiu**, *Evaluation of the antimicrobial activity of five selected essential oils*, Annals of West University of Timișoara, ser. Biology, 2025, vol. 28 (1), pp.91-102
3. Teodora-Maria Barnea, Constantina Bianca Vulpe, Oana Roxana Toader, Corina Duda-Seiman, Vasile Ostafe, **Gheorghita Menghiu**, *Stimulatory effects of raw Chelidonium majus extracts on the growth of various strains of microorganisms*, Annals of West University of Timișoara, ser. Biology, 2025, vol. 28 (1), pp.65-82
4. Adina Matica, **Gheorghita Menghiu**, Vasile Ostafe, *Biodegradability of Chitosan Based Products*, New Frontiers in Chemistry, 26(1) (2017), pp 75-86.
5. Adina Matica, **Gheorghita Menghiu**, Vasile Ostafe, *Toxicity of Chitosan Based Products*, New Frontiers in Chemistry, 26(1) (2017), pp 65-74.
6. Adina Matica, **Gheorghita Menghiu**, Vasile Ostafe, *Antifungal Properties of Chitosans*, New Frontiers in Chemistry, 26(1) (2017), pp 55-63.
7. Adina Matica, **Gheorghita Menghiu**, Vasile Ostafe, *Antibacterial Properties of Chitosans*, New Frontiers in Chemistry, 26(1) (2017), pp 39-54.
8. Monica Elena Gușă, **Gheorghita Menghiu**, Vasile Ostafe, *Improvement of staining / destaining steps of proteins SDS – PAGE*, New Frontiers in Chemistry, 25 (2) (2016), pp 115-124.
9. Ovidiu Silviu Cotreanti, **Gheorghita Menghiu**, Vasile Ostafe, *Preliminary outcomes regarding the optimization of separation of plasmids by agarose gel electrophoresis*, New Frontiers in Chemistry, 25 (2) (2016), pp 107-113.
10. Bianca Vanesa Boros, **Gheorghita Menghiu**, Adina Matica, Vasile Ostafe, *Use of ninhydrin reaction for estimation of acetylation degree of chitosan*, New Frontiers in Chemistry, 25 (2) (2016), pp 95-105.
11. Bianca Vulpe, **Gheorghita Menghiu**, Adina Matica, Vasile Ostafe, *Estimation of the molecular weight of chitosan by PAGE*, New Frontiers in Chemistry, 25 (2) (2016), pp 135-143.
12. Rahela Ioana Zbîrcea, **Gheorghita Menghiu**, Adina Matica, Vasile Ostafe, *Use of 3,5-dinitrosalicylic acid reaction to study the chitosan hydrolysis*, New Frontiers in Chemistry, 25 (2) (2016), pp 145-153.
13. **Gheorghita Menghiu**, Alexandra Murvay, Marija Blazic, Nevena Zelenovic, Diana-Larisa Vlădoiu, Vasile Ostafe, *Transfer of a gene from a bacterial cloning plasmid to an yeast expression plasmid*, Annals of West University of Timișoara, ser. Chemistry, 22 (3 - 4) (2013) 55-66.
14. **Gheorghita Menghiu**, Marius Cuțitar, Marija Blazic, Beatrice Vlad-Oros, Vasile Ostafe, *Use of factorial design as an application of the optimization of expression of Taq DNA polymerase I cloned in E. coli*, Annals of West University of Timișoara, ser. Chemistry, 22 (3 - 4) (2013) 67 – 80.
15. **Gheorghita Menghiu**, Elena Iriza, Adelina Danciu, Orsolya Tünde Zsombori, Cecilia Găman, Hanelore - Elena Muntean, *Biomonitoring of urban area by anatomical leaf changes*, Annals of West University of Timișoara, ser. Biology, 2012, vol XV (2), pp. 125-130.

COMUNICĂRI ȘI CONFERINȚE (Naționale și Internaționale)

1. Gostian Maria Izabela, **Menghiu Gheorghita**, *Medii solide selective pentru izolarea și numărarea bacteriilor acidofile din ape de drenaj minier*, „Misiunea 3: Restaurarea Apelor și Oceanelor Noastre - între cercetare și implementare”, eveniment organizat de Universitatea de Vest din Timișoara, împreună cu ResPonSE- Cercetare integrată și soluții sustenabile pentru protecția și restaurarea ecosistemelor din bazinul inferior al Dunării - Zona costieră a Mării Negre, CeCOCe - Vest și SciResCareer în perioada 3-4 octombrie 2024.
2. Odină Andreea Denisa, **Menghiu Gheorghita**, *Analiză comparativă a parametrilor fizico-chimici și microbiologici a unor probe de apă potabilă prelevate din orașul Timișoara*, „Misiunea 3: Restaurarea Apelor și Oceanelor Noastre - între cercetare și implementare”, eveniment organizat de Universitatea de Vest din Timișoara, împreună cu ResPonSE- Cercetare integrată și soluții sustenabile pentru protecția și restaurarea ecosistemelor din bazinul inferior al Dunării - Zona costieră a Mării Negre, CeCOCe - Vest și SciResCareer în perioada 3-4 octombrie 2024.
3. Antonie Maria Madalina, **Menghiu Gheorghita**, *Investigations regarding the efficacy of several cosmetic preservatives*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
4. Bajusz Daria-Maria, **Menghiu Gheorghita**, *Exploring the effect of three cosmetic nutrients on several bacterial strains*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
5. Cone Maria Alexandra, **Menghiu Gheorghita**, *Preliminary results on the detection of adenosine triphosphate using the luminescent D-luciferin-luciferase reaction*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
6. Gavrilă Daria-Andra, **Menghiu Gheorghita**, *Effect of titanium dioxide on certain bacterial and yeast cultures*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
7. Barnea Maria Teodora, **Menghiu Gheorghita**, *Effects of raw Chelidonium majus extracts on different strains of microorganisms*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
8. Verboncu Denisa-Mirabela, **Menghiu Gheorghita**, *Studies on different chemical parameters of dairy products by spectrophotometric methods*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
9. Miclea Camelia Loredana, **Menghiu Gheorghita**, *Effects of aqueous chili pepper extracts on various strains of microorganisms*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
10. Jivulescu Laura-Elena, **Menghiu Gheorghita**, *Challenges of the comet assay on yeast cells*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
11. Jilcovici Aura-Stefania, **Menghiu Gheorghita**, *Antimicrobial effect of five essential oils*, Multidisciplinary Conference on Sustainable Development, Section: Animal Resources Bioengineering, 30-31 mai, 2024, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
12. Alexandra Dobritoiu, Constantina Bianca Vulpe, Vasile Ostafe, **Gheorghita Menghiu**, *Analysis regarding the determination of the activity of acidophilic bacterial strains in synthetic media containing preliminary different concentrations of heavy metals*, 15th Edition of the Conference”

New Trends in Chemistry Research”, 21-22 septembrie, 2023, Institutul de Chimie „Coriolan Drăgulescu”, Timișoara, România.

13. Calcatinge Dumitrita, Elena Ana, Gamart Corina, Ostafe Vasile, **Menghiu Gheorghita**, *Antimicrobial effect of a recombinant chitinase against different strains of bacteria and fungi*, Multidisciplinary Conference on Sustainable Development, 25-26 mai, 2023, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
14. **Menghiu Gheorghita**, Vulpe Bianca Constantina, Matica Mariana Adina, Kovacevic Renata, Ostafe Vasile, *Preliminary results regarding using of microorganisms in decontamination of mining water polluted with copper*, International Scientific Symposium „Young people and scientific research in Animal Husbandry and Biotechnology”, 17-18 noiembrie, 2022, Universitatea de Științele Vieții „Regele Mihai I”, Timișoara, România.
15. Eliza Maria Mihalache, Vasile Ostafe, **Gheorghita Menghiu**, *Glycosylated recombinant chitinase A, a suitable enzyme for biotechnological processes of chitin conversion*, 14th Edition of symposium with international participation - New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection – 20-21 octombrie, 2022, Institutul de Chimie Coriolan Drăgulescu, Timișoara, România.
16. **Gheorghita Menghiu**, Renata Kovacevic, Mariana Adina Matica, Daniela Dascalu, Bianca Vanesa Boros, Zoran Stevanovic, Adriana Isvoran, Vasile Ostafe, *Cleaning metal-polluted water using microorganisms generally recognized as safe for humans*, 7th International Congress „Engineering, Environment and Materials in Process Industry”, 17-19 martie, 2021, Jahorina, Bosnia și Herțegovina.
17. Bianca Constantina Vulpe, Daniela Dascalu, Bianca Vanesa Boros, **Gheorghita Menghiu**, Mariana Adina Matica, Diana Larisa Roman, Beatrice Vlad Oros, Renata Kovacevic, Zoran Stevanovic, Vasile Ostafe, Adriana Isvoran, *Quality of water in Moldova Noua mining area, Romania*, 7th International Congress „Engineering, Environment and Materials in Process Industry”, 17-19 martie, 2021, Jahorina, Bosnia și Herțegovina.
18. **Gheorghita Menghiu**, Vasile Ostafe, *Chitinazele cu proprietăți îmbunătățite: soluție pentru managementul și valorificarea deșeurilor de chitină*, Conferința Școlilor Doctorale din Consorțiu, Ed. a III-a – 2020 / Chimie, online, 12 Decembrie 2020, Universitatea din București, Romania.
19. **Gheorghita Menghiu**, Bianca-Vanesa Boros, Adina Mariana Matica Vasile Ostafe, *Chitinases – Enzymes suitable for the production of chitooligosaccharides used in wound healing*, International Conferene on Cell and Gene Therapy, 26-27 noiembrie, 2019, Lisabona, Portugalia.
20. **Gheorghita Menghiu**, Vasile Ostafe, *Chitinazele termostabile: biocatalizatori pentru obținerea de chitooligozaharide folosite în industria biocombustibililor*, Conferința Școlilor Doctorale din Consorțiu, Ed. a II-a – 2019 / Chimie, 11-14 Noiembrie 2019, Universitatea de Vest din Timișoara, Romania.
21. **Gheorghita Menghiu**, Vasile Ostafe, *Chitinases: An option for the future of nanomedicine, nanobiotechnology and nanoagriculture*, Workshop Nano-Mod, 22-23 aprilie, 2019, Universitatea de Vest Timisoara, Romania.
22. **Gheorghita Menghiu**, Vasile Ostafe, Raluca Ostafe, *Development of high-throughput screening systems based on FACS or microfluidic devices for the directed evolution of chitinases* 15th FEBS Young Scientists Forum (YSF), 2 – 4 iulie, 2015, Berlin, Germania; Book of Abstracts p. 116 (2015).
23. **Gheorghita Menghiu**, Vasile Ostafe, Raluca Ostafe, *Development of high-throughput screening systems based on FACS or microfluidic devices for the directed evolution of chitinases* 40th Congress of The Federation of European Biochemical Societies (FEBS), 4 – 9 iulie, 2015, Berlin, Germania; Book of Abstracts p. 63 (2015).