

**Lista de lucrări în domeniul de știință definit de disciplinele din postul scos
la concurs**

NUMELE ȘI PRENUMELE: ORBÁN KÁLMÁN-CSONGOR

I. LISTA PUBLICAȚIILOR RELEVANTE

1. Salamon Pál, **Orbán Kálmán-Csongor**, Molnár-Nagy Katalin, Kovács Zita, Klára Váncsa, Bálint Emese, Miklóssy Ildikó, Albert Beáta, Tar Gyöngyvér, Lányi Szabolcs, *Study of native SMAC protein production in the pUbiq expression system: Molecular cloning, biosynthesis and molecular modelling*, EJB, Vol. 56, 2022, p. 39-46
2. Szövérfi János, **Orbán Kálmán-Csongor**, Albert Beáta, Nagy Katalin, Salamon Pál, Lányi Szabolcs, *In vitro study of the CCMV capsid protein: cloning, expression, and purification*, UPB Sci. Bull, Series B, Vol. 83, Iss.1, 2021, p. 135-142
3. Katalin Nagy, Zita Kovács, Pál Salamon, **Csongor-Kálmán Orbán**, Szabolcs Lányi, Beáta Albert, *Enhanced heterologous expression in E. Coli*, Studia UBB Chemia LXIV, 2, Tom I, 2019, p. 101-110
4. Francisc-Andrei Boda, Salamon Pál, **Csongor Orbán**, Lavinia Berta Augustin Curticópean, Șerban-Andrei Gâz, Maria Dogaru, *Heterologous expression and purification of recombinant crotoxin B, the phospholipase A2 subunit of crotoxin*, Studia UBB Chemia, LXII, 1, 2018, p. 7-22
5. Stefan-Ovidiu Dima, Denis-Mihaela Panaitescu, **Csongor Orban**, Marius Ghiurea, Sanda-Maria Doncea, Radu Fierascu, Cristina Nistor, Elvira Alexandrescu, Cristian-Andi Nicolae, Bogdan Trică, Angela Moraru, Florin Oancea: *Bacterial Nanocellulose from Side-Streams of Kombucha Beverages Production: Preparation and Physical-Chemical Properties*, Polymers 2017, 9 (8), 374, 2017, p. 2-24.
6. Miklóssy, I., Bodor, Z., Sinkler, R., **Orbán, K. C.**, Lányi, S., Albert, B.: *In silico and in vivo stability analysis of a heterologous biosynthetic pathway for 1,4-butanediol production in metabolically engineered E. coli.*, Journal of Biomolecular Structure and Dynamics, 35(9), 2016, p. 1874-1889
7. Bálint, E.É., Petres, J., Szilágyi, L., **Orbán, K.Cs.**, Ábrahám, B., *Fluorescence of a histidine-modified Enhanced Green Fluorescent Protein (EGFP) effectively quenched by copper(II) ions*. Journal of Fluorescence, 23(2), 2013, p. 273-81
8. Gálicza, J., Vargová, A., Sándor, V., **Orbán, K.Cs.**, András, Cs.D., Ábrahám, B, Lányi, Sz., Kilár, F., *Preparation and investigation of bioactive transferrin-iron complexes formed with different synergistic anions*, The Protein Journal, 31, 2012, p. 27-34
9. Andras, CD; Csajagi, C; **Orban, CK**; Albert, C; Abraham, B.; Miklossy, I, *A possible explanation of the germicide effect of carbon dioxide in supercritical state based on molecular-biological evidence*. Medical Hypotheses, 74 (2), 2010, p. 325-329
10. Gálicza, J., **Orbán, K.Cs.**, Kilár, F., Miklóssy, I., Ábrahám, B., Lányi, Sz. *Preparation and modelling of the structure of transferrin-Fe³⁺-aziridine-carboxylate complex*, Studia UBB Chemia, Special Issue 54, 2010, p.45-52

II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENȚII

A. Teza de doctorat.

Contribuții la optimizarea și modelarea proceselor de amiloliză cu enzime recombinante, Universitatea Politehnica din București, Facultatea de Chimie Aplicată și Știința Materialelor, Departamentul Chimie Analitică și Ingineria Mediului,

B. Cărți publicate

B1. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate la edituri recunoscute în străinătate.

1. Orbán Kálmán-Csongor, Contributions to the OPT and modeling of amylolysis with REC enzymes, LAP LAMBERT Academic Publishing, Chisinau, 2013, p.120, ISBN 978-3-659-37846-1

B3. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate la alte edituri sau pe plan local.

1. Orbán Kálmán-Csongor, Számítógépes grafika – AutoCAD, 2022, p. 97, ISBN: 978-973-0-36554-2

C. Lucrări științifice publicate

1. Salamon Pál, **Orbán Kálmán-Csongor**, Molnár-Nagy Katalin, Kovács Zita, Klára Váncsa, Bálint Emese, Miklóssy Ildikó, Albert Beáta, Tar Gyöngyvér, Lányi Szabolcs, *Study of native SMAC protein production in the pUbiq expression system: Molecular cloning, biosynthesis and molecular modelling*, EJB, Vol. 56, 2022, p. 39-46
2. Nagy Katalin, Kovács Zita, Miklóssy Ildikó, Salamon Pál, **Orbán Kálmán-Csongor**, Albert Beáta, Lányi Szabolcs, *Detergent aided refolding and purification of recombinant XIAP from inclusion bodies*, Studia UBB Chemia, LXVI, 4, 2021, p. 355-368
3. Katalin Nagy, Zita Kovács, Pál Salamon, **Csongor-Kálmán Orbán**, Szabolcs Lányi, Beáta Albert, *Enhanced heterologous expression in E. Coli*, Studia UBB Chemia LXIV, 2, Tom I, 2019, p. 101-110
4. Francisc-Andrei Boda, Salamon Pál, **Csongor Orbán**, Lavinia Berta Augustin Curticăpean, Șerban-Andrei Gâz, Maria Dogaru, *Heterologous expression and purification of recombinant crotoxin B, the phospholipase A2 subunit of crotoxin*, Studia UBB Chemia, LXII, 1, 2018, p. 7-22
5. Stefan-Ovidiu Dima, Denis-Mihaela Panaitescu, **Csongor Orban**, Marius Ghiurea, Sanda-Maria Doncea, Radu Fierascu, Cristina Nistor, Elvira Alexandrescu, Cristian-Andi Nicolae, Bogdan Trică, Angela Moraru, Florin Oancea: *Bacterial Nanocellulose from Side-Streams of Kombucha Beverages Production: Preparation and Physical-Chemical Properties*, Polymers, 9 (8), 374, 2017, p. 2-24.
6. Pál Salamon, Ildikó Miklóssy, Beáta Albert, Mónika Korodi, Katalin Nagy, Ildikó Bakos, Szabolcs Lányi, **Csongor Orbán**, *Heterologous expression and purification of recombinant proapoptotic human protein SMAC/diablo with EGFP as fusion partner*, Studia UBB, Seria Chemia LXII, 62(2), 2017, p. 333-345
7. Miklóssy, I., Bodor, Z., Sinkler, R., **Orbán, K. C.**, Lányi, S., Albert, B.: *In silico and in vivo stability analysis of a heterologous biosynthetic pathway for 1,4-butanediol*

production in metabolically engineered E. coli., Journal of Biomolecular Structure and Dynamics, 35(9), 2016, p. 1874-1889

8. Bálint, E.É., Petres, J., Szilágyi, L., **Orbán, K.Cs.**, Ábrahám, B., *Fluorescence of a histidine-modified Enhanced Green Fluorescent Protein (EGFP) effectively quenched by copper(II) ions*. Journal of Fluorescence, 23, 2013, p. 273-281
9. Gálicza, J., Vargová, A., Sándor, V., **Orbán, K.Cs.**, András, Cs.D., Ábrahám, B, Lányi, Sz., Kilár, F., *Preparation and investigation of bioactive transferrin-iron complexes formed with different synergistic anions*, The Protein Journal, 31, 2012, p. 27–34
10. Andras, CD; Csajagi, C; **Orban, CK**; Albert, C; Abraham, B.; Miklossy, I, *A possible explanation of the germicide effect of carbon dioxide in supercritical state based on molecular-biological evidence*. Medical Hypotheses, 74, 2010, p. 325-329
11. Bodor, Zs., **Orbán, K.Cs.**, Miklóssy, I., Juhász K., Ábrahám, B., Lányi, Sz., *Heterologous expression of Bacillus Licheniformis α -amylase in Pichia pastoris*, Studia UBB, Seria Chemia, 55, Special Issue, 2010, p. 9-22
12. Gálicza, J., **Orbán, K.Cs.**, Kilár, F., Miklóssy, I., Ábrahám, B., Lányi, Sz. *Preparation and modelling of the structure of transferrin-Fe³⁺-aziridine-carboxylate complex*, Studia UBB, Seria Chemia, Special Issue, 2010, p. 45-52

C2. Lucrări științifice publicate în reviste indexate în baze de date internaționale (indicați și baza de date).

1. **Orbán Kálmán Csongor**, Kis Éva, Albert Csilla, Molnos Éva, *Antioxidant capacity of blackcurrant (Ribes nigrum L.) leaves and buds*, Acta Univ. Sapientiae Alimentaria, 14, 2021, p. 117-130, indexat în: CAB Abstracts and Global Health, Google Scholar, Foodline Science
2. Szövérfi János, **Orbán Kálmán-Csongor**, Albert Beáta, Nagy Katalin, Salamon Pál, Lányi Szabolcs, *In vitro study of the CCMV capsid protein: cloning, expression, and purification*, UPB Sci. Bull, Series B, Vol. 83, Iss.1, 2021, p. 135-142, indexat în: Isi Thomson Reuters, Ulrich's International Periodicals Directory, Inspec, Scopus, Cambridge Scientific Abstracts, Chemical Abstracts Service - Division Of American Chemical Society, Elsevier Sciences's Bibliographic Databases, Metals Abstracts, Engineering Village, Publication In Engineering, Metadex, Compendex
3. Nagy Katalin, **Orbán Kálmán-Csongor**, Albert Beáta, Lányi Szabolcs, *Biosynthesis BIR3 domain of inhibitor of apoptosis proteins*, UPB Sci. Bull., series B, 81, Iss. 4, 2019, p.15-22, indexat în: Isi Thomson Reuters, Ulrich's International Periodicals Directory, Inspec, Scopus, Cambridge Scientific Abstracts, Chemical Abstracts Service - Division Of American Chemical Society, Elsevier Sciences's Bibliographic Databases, Metals Abstracts, Engineering Village, Publication In Engineering, Metadex, Compendex
4. Ábrahám, B., **Orbán, K.Cs.**, Dima, R., Lányi, Sz., *Heterologous expression of pullulanase from Fervidobacterium pennivorans in E. coli*, UPB Sci. Bull. Series B, Vol. 75, Iss. 2, 2013, p. 75-80, indexat în: Isi Thomson Reuters, Ulrich's International Periodicals Directory, Inspec, Scopus, Cambridge Scientific Abstracts, Chemical Abstracts Service - Division Of American Chemical Society, Elsevier Sciences's Bibliographic Databases, Metals Abstracts, Engineering Village, Publication In Engineering, Metadex, Compendex

C5. Lucrări științifice publicate în reviste, altele decât cele menționate anterior

1. **Orbán K. Csongor**, András Csaba, Ábrahám Beáta, Lányi Szabolcs, *Determinarea concentrației glicerolului din mediu bacterian prin metode refractometrice*, Technical Review, ISSN 1454-0746, Műszaki Szemle, 2012, p. 37-40

F. Brevete de invenții și alte titluri de proprietate

1. Abraham Beata, Lanyi Szabolcs, Mathe Istvan, **Orban Kalman Csongor**, Bodor Zsolt, Tanczos Szidonia, Fejer Kiraly Gergely, Koncz Mihaly, Toro Szabolcs, Funkenhauser Bernadett, Dobri Emoke, Tulpină de *Lactobacillus plantarum* subsp. *Plantarum* utilizată în procesul de însilozare a plantelor furajere, 130894, 2019
2. Abraham Beata, Lanyi Szabolcs, Mara Gyongyver, Kovacs Erika, **Orban Kalman Csongor**, Laslo Eva, Balint Emese, Bodor Zsolt, Meszaros Alexandru, Kadar Attila, Sinkler Reka, Toro Szabolcs, Funkenhauser Bernadett, Becze Annamaria, 130922, 2019
3. Abraham Beata, Lanyi Szabolcs, Mara Gyongyver, Mathe Istvan, Kovacs Erika, **Orban Kalman Csongor**, Laslo Eva, Balint Emese, Bodor Zsolt, Meszaros Alexandru, Tanczos Szidonia, Fejer Kiraly Gergely, Koncz Mihaly, Mathe Lorand, Dobri Emoke, Becze Annamaria, Tulpină de *Bacillus sp. sze 102A* utilizată în procesul de însilozare a plantelor furajere, 130921, 2019

G. Contracte de cercetare (menționați calitatea de director sau membru)

1. Dezvoltarea Unei Tehnologii De Producție De Anticorpi Monoclonali La Sediul Firmei Sc Corax-Bioner Ceu Sa., Finanțat de Ministerul Investițiilor și Proiectelor Europene, POC/163/1/3, cod SMIS 2014 121101, Director proiect (valoare totală: 15,987,516.45 RON)
2. Managementul Complex Al Resturilor Vegetale În Sisteme De Agricultură Conservativă – Ceres, Finanțat de UEFISCDI: PNIIPT-PCCA-2013-4-0846, 2013-2015, membru în echipă, (valoare totală: 2.931.255 RON)
3. Biopreparate Microbiene Pentru Creșterea Calității Furajelor Însilozate – Siloprep, POS – Operațiunea 2.1.1: Proiecte de CD în parteneriat între universități/institute de cercetare și întreprinderi, POSCEE No. 565/09.09.2013, membru în echipă, (valoare totală 3.317.000 RON)
4. Sinteza Unor Chimicale De Baza Acizi Carboxilici C4, C5 Din Resurse Regenerabile Din Biomasa – Biobuild, Finanțat de UEFISCDI: PN-II-PCCA-2011-3.2-1367, 2012-2016, Cercetător (valoare totală: 2.079.000 RON)

III. RECUNOAȘTEREA

J. Citări

1. Stefan-Ovidiu Dima, Denis-Mihaela Panaitescu, **Csongor Orban**, Marius Ghiurea, Sanda-Maria Doncea, Radu Fierascu, Cristina Nistor, Elvira Alexandrescu, Cristian-Andi Nicolae, Bogdan Trică, Angela Moraru, Florin Oancea: *Bacterial Nanocellulose from Side-Streams of Kombucha Beverages Production: Preparation and Physical-Chemical Properties*, Polymers, 9 (8), 374, 2017, p. 2-24.
 1. Salimi, Sina, et al. "Production of nanocellulose and its applications in drug delivery: A critical review." *ACS Sustainable Chemistry & Engineering* 7.19 (2019): 15800-15827.
 2. Wang, Jie, et al. "Preparation of nanocellulose and its potential in reinforced composites: A review." *Journal of Biomaterials Science, Polymer Edition* 30.11 (2019): 919-946.
 3. Kamiński, Kamil, et al. "Hydrogel bacterial cellulose: A path to improved materials for new eco-friendly textiles." *Cellulose* 27.9 (2020): 5353-5365.
 4. Domskiene, Jurgita, Florentina Sederaviciute, and Judita Simonaityte. "Kombucha bacterial cellulose for sustainable fashion." *International Journal of Clothing Science and Technology* (2019).
 5. Sharma, Chhavi, and Nishi K. Bhardwaj. "Biotransformation of fermented black tea into bacterial nanocellulose via symbiotic interplay of microorganisms." *International journal of biological macromolecules* 132 (2019): 166-177.
 6. Yu, Sujie, et al. "Nanocellulose from various biomass wastes: Its preparation and potential usages towards the high value-added products." *Environmental Science and Ecotechnology* 5 (2021): 100077.
 7. Uşoiu, Elena, et al. "Bee collected pollen with enhanced health benefits, produced by fermentation with a Kombucha Consortium." *Nutrients* 10.10 (2018): 1365.
 8. Laavanya, D., Shivanand Shirkole, and P. Balasubramanian. "Current challenges, applications and future perspectives of SCOBY cellulose of Kombucha fermentation." *Journal of Cleaner Production* 295 (2021): 126454.
 9. Sharip, N. S., et al. "A review on nanocellulose composites in biomedical application." *Composites in Biomedical Applications* (2020): 161-190.
 10. Lee, Ching Hao, Abdan Khalina, and Seng Hua Lee. "Importance of interfacial adhesion condition on characterization of plant-fiber-reinforced polymer composites: A review." *Polymers* 13.3 (2021): 438.
 11. Cottet, Celeste, et al. "Biobased materials from microbial biomass and its derivatives." *Materials* 13.6 (2020): 1263.
 12. Valencia, Luis, et al. "Nanolignocellulose extracted from environmentally undesired *Prosopis juliflora*." *ACS omega* 4.2 (2019): 4330-4338.
 13. Shahzamani, Mahnaz, et al. "Preparation and characterization of hydrogel nanocomposite based on nanocellulose and acrylic acid in the presence of urea." *International Journal of Biological Macromolecules* 147 (2020): 187-193.
 14. Norraahim, Mohd Nor Faiz, et al. "Performance evaluation of cellulose nanofiber with residual hemicellulose as a nanofiller in polypropylene-based nanocomposite." *Polymers* 13.7 (2021): 1064.
 15. Sharma, Chhavi, Nishi K. Bhardwaj, and Puneet Pathak. "Static intermittent fed-batch production of bacterial nanocellulose from black tea and its modification using chitosan to develop antibacterial green packaging material." *Journal of Cleaner Production* 279 (2021): 123608.
 16. Ramírez Tapias, Yuly A., et al. "Kombucha tea by-product as source of novel materials: Formulation and characterization of films." *Food and Bioprocess Technology* 13.7 (2020): 1166-1180.
 17. Norraahim, Mohd Nor Faiz, et al. "Performance evaluation of cellulose nanofiber reinforced polymer composites." *Functional Composites and Structures* (2021).
 18. Soares, Marcelo Gomes, Marieli de Lima, and Vivian Consuelo Reolon Schmidt. "Technological aspects of kombucha, its applications and the symbiotic culture (SCOBY), and extraction of compounds of interest: A literature review." *Trends in Food Science & Technology* 110 (2021): 539-550.
 19. El-Wakil, Nahla A., et al. "Bacterial cellulose/phytochemical's extracts biocomposites for potential active wound dressings." *Environmental Science and Pollution Research* 26.26 (2019): 26529-26541.

20. Patil, Tejal V., et al. "Nanocellulose, a versatile platform: From the delivery of active molecules to tissue engineering applications." *Bioactive materials* 9 (2022): 566-589.
21. Agarwal, Jyoti, Smita Mohanty, and Sanjay K. Nayak. "Valorization of pineapple peel waste and sisal fiber: Study of cellulose nanocrystals on polypropylene nanocomposites." *Journal of Applied Polymer Science* 137.42 (2020): 49291.
22. Avcioglu, Nermin Hande, Meric Birben, and Isil Seyis Bilkay. "Optimization and physicochemical characterization of enhanced microbial cellulose production with a new Kombucha consortium." *Process Biochemistry* 108 (2021): 60-68.
23. Nirmal, Nadia, et al. "Formation of dialysis-free Kombucha-based bacterial nanocellulose embedded in a polypyrrole/PVA composite for bulk conductivity measurements." *RSC Advances* 10.46 (2020): 27585-27597.
24. Khaleel, Haneen Lateef, Ahmed N. Abd, and Karim M. Ali. "Preparation of nano-cellulose from industrial waste by ultrasonic device." *Journal of Biochemical Technology* 9.1 (2018): 35.
25. Oliver-Ortega, Helena, et al. "Bacterial cellulose network from kombucha fermentation impregnated with emulsion-polymerized poly (Methyl methacrylate) to form nanocomposite." *Polymers* 13.4 (2021): 664.
26. Savary, Océane, et al. "Tailor-made microbial consortium for Kombucha fermentation: Microbiota-induced biochemical changes and biofilm formation." *Food Research International* 147 (2021): 110549.
27. Abba, Mustapha, et al. "Physicochemical, Morphological, and Microstructural Characterisation of Bacterial Nanocellulose from *Gluconacetobacter xylinus* BCZM." *Journal of Natural Fibers* (2020): 1-12.
28. Tapias, Yuly A. Ramírez, et al. "Bacterial cellulose films production by Kombucha symbiotic community cultured on different herbal infusions." *Food Chemistry* 372 (2022): 131346.
29. Villarreal-Soto, Silvia A., et al. "Physicochemical properties of bacterial cellulose obtained from different Kombucha fermentation conditions." *Journal of Vinyl and Additive Technology* 27.1 (2021): 183-190.
30. Crawford, Andrew M., Aniruddha Deb, and James E. Penner-Hahn. "M-BLANK: a program for the fitting of X-ray fluorescence spectra." *Journal of synchrotron radiation* 26.2 (2019): 497-503.
31. Finny, Abraham Samuel, Oluwatosin Popoola, and Silvana Andreescu. "3D-Printable Nanocellulose-Based Functional Materials: Fundamentals and Applications." *Nanomaterials* 11.9 (2021): 2358.
32. Molina-Romero, Joan Manuel, et al. "Reduced tensile properties of bacterial cellulose membranes after an accelerated composite temperature/humidity cyclic assay." *Journal of Polymers and the Environment* 29.7 (2021): 2349-2358.
33. Provin, Ana Paula, et al. "Use of bacterial cellulose in the textile industry and the wettability challenge—a review." *Cellulose* 28.13 (2021): 8255-8274.
34. Mazotto, Ana Maria, et al. "How can microbiology help to improve sustainability in the fashion industry?." *Environmental Technology & Innovation* 23 (2021): 101760.
35. Rosamah, Enih. "The Nanocellulose Fibers from Symbiotic Culture of Bacteria and Yeast (SCOBY) Kombucha: Preparation and Characterization." *Nanofibers-Synthesis, Properties and Applications*, 2021.
36. Leonarski, Eduardo, et al. "Typical kombucha fermentation: Kinetic evaluation of beverage and morphological characterization of bacterial cellulose." *Journal of Food Processing and Preservation* 45.12 (2021): e16100.
37. Fiallos-Cárdenas, Manuel, et al. "Bacterial Nanocellulose Derived from Banana Leaf Extract: Yield and Variation Factors." *Resources* 10.12 (2021): 121.
38. Wasim, Muhammad, et al. "Extraction of cellulose to progress in cellulosic nanocomposites for their potential applications in supercapacitors and energy storage devices." *Journal of Materials Science* 56.26 (2021): 14448-14486.
39. Coseri, Sergiu. "Insights on Cellulose Research in the Last Two Decades in Romania." *Polymers* 13.5 (2021): 689.
40. Provin, Ana Paula, et al. "Textile industry and environment: can the use of bacterial cellulose in the manufacture of biotextiles contribute to the sector?." *Clean Technologies and Environmental Policy* 23.10 (2021): 2813-2825.
41. Rafsanjani, Fajar Rifqi, and Agnes Purwidyantri. *PENGEMBANGAN SENSOR pH BERBASIS BACTERIAL CELLULOSE (Acetobacter xylinum) DAN NANOPARTIKEL EMAS (Au Nanostars) SEBAGAI DETEKTOR KEASAMAN SUSU*. Diss. Universitas Pasundan, 2019.
42. Goudarzi, Ali, Atasheh Soleimani-Gorgani, and Ozan Avinc. "Preparation of Multi-purpose Nano Ink-jet Printed Fabric by Pretreating Cotton Fabric with Carboxylated Styrene-Butadiene Latex." *Journal of Nanostructures* 12.2 (2022): 287-302.

43. Bencurova, Elena, Meik Kunz, and Thomas Dandekar. "Nanocellulose: A New Multifunctional Tool for RNA Systems Biology Research." *Systems Biology*. Springer, Cham, 2018. 373-401.
 44. Byström, Cornelia. "Biomimetically improved materials comprising microfibrillated cellulose." (2021).
 45. Wood, Jane, et al. "Reproducibility of Bacterial Cellulose Nanofibers Over Sub-Cultured Generations for the Development of Novel Textiles." *Frontiers in Bioengineering and Biotechnology* (2022): 561.
 46. ARICI, Tuğba ALP. "The Effective and Eco-friendly Tea Fungus for the Biosorption of Dye Pollutant from Aqueous Solutions." *Adiyaman University Journal of Science* 11.2: 370-384.
 47. Bravo, Sengés, and Alejandro Iván. *A review on chitosan-based composite film reinforced with cellulose: morphology and mechanical properties*. BS thesis. Universidad de Investigación de Tecnología Experimental Yachay, 2021.
 48. Li, Siying, et al. "Continuous Flow Vortex Fluidic Transformation of Kombucha Cellulose into More Compact and Crystalline Fibers." *ACS Sustainable Chemistry & Engineering* 10.13 (2022): 4279-4288.
2. Miklóssy, I., Bodor, Z., Sinkler, R., **Orbán, K. C.**, Lányi, S., Albert, B.: *In silico and in vivo stability analysis of a heterologous biosynthetic pathway for 1,4-butanediol production in metabolically engineered E. coli.*, *Journal of Biomolecular Structure and Dynamics*, 35(9), 2016, p. 1874-1889
 1. Gao, Xianlong, et al. "Effects of a forming process on the properties and structure of RANEY®-Ni catalysts for the hydrogenation of 1, 4-butenediol." *RSC Advances* 10.10 (2020): 5516-5524.
 2. Cheng, Jie, Juan Li, and Linggang Zheng. "Achievements and Perspectives in 1, 4-Butanediol Production from Engineered Microorganisms." *Journal of Agricultural and Food Chemistry* 69.36 (2021): 10480-10485.
 3. Dessie, Wubliker, et al. "Insights on the Advancements of In Silico Metabolic Studies of Succinic Acid Producing Microorganisms: A Review with Emphasis on Actinobacillus succinogenes." *Fermentation* 7.4 (2021): 220.
 3. Bálint, E.É., Petres, J., Szilágyi, L., **Orbán, K.Cs.**, Ábrahám, B., *Fluorescence of a histidine-modified Enhanced Green Fluorescent Protein (EGFP) effectively quenched by copper(II) ions*. *Journal of Fluorescence*, 23, 2013, p. 273-281
 1. Lundblad, Roger L. Chemical reagents for protein modification. CRC press, 2004.
 2. Vranish, James N., et al. "Fluorescent probes for tracking the transfer of iron-sulfur cluster and other metal cofactors in biosynthetic reaction pathways." *Journal of the American Chemical Society* 137.1 (2015): 390-398.
 3. Choi, Yoon-Aa, et al. "A novel copper-chelating strategy for fluorescent proteins to image dynamic copper fluctuations on live cell surfaces." *Chemical science* 6.2 (2015): 1301-1307.
 4. Ravikumar, Yuvaraj, et al. "A new-generation fluorescent-based metal sensor-iLOV protein." *Journal of Microbiology and Biotechnology* 25.4 (2015): 503-510.
 5. Jiang, Tao, et al. "Developing a genetically encoded green fluorescent protein mutant for sensitive light-up fluorescent sensing and cellular imaging of Hg (II)." *Analytica Chimica Acta* 876 (2015): 77-82.
 6. Sorenson, A. E., and P. M. Schaeffer. "A new bivalent fluorescent fusion protein for differential Cu (II) and Zn (II) ion detection in aqueous solution." *Analytica Chimica Acta* 1101 (2020): 120-128.
 7. Kots, Kiki, et al. "Filamentous actin accumulates during plant cell penetration and cell wall plug formation in *Phytophthora infestans*." *Cellular and Molecular Life Sciences* 74.5 (2017): 909-920.
 8. Ravikumar, Yuvaraj, et al. "FMN-based fluorescent proteins as heavy metal sensors against mercury ions." *Journal of Microbiology and Biotechnology* 26.3 (2016): 530-539.
 9. Liu, Hu, et al. "Integrative refolding and purification of histidine-tagged protein by like-charge facilitated refolding and metal-chelate affinity adsorption." *Journal of Chromatography A* 1344 (2014): 59-65.
 10. Ravikumar, Yuvaraj, et al. "Engineering an FMN-based iLOV protein for the detection of arsenic ions." *Analytical biochemistry* 525 (2017): 38-43.
 11. Masullo, Tiziana, et al. "Development of a biosensor for copper detection in aqueous solutions using an *Anemonia sulcata* recombinant GFP." *Applied biochemistry and biotechnology* 172.4 (2014): 2175-2187.

12. Grüter, Andreas, et al. "A high-affinity fluorescence probe for copper (II) ions and its application in fluorescence lifetime correlation spectroscopy." *Analytical and bioanalytical chemistry* 411.15 (2019): 3229-3240.
 13. Park, Sung Jin, et al. "His-tagged protein immobilization on cationic ferrite magnetic nanoparticles." *Korean Journal of Chemical Engineering* 35.6 (2018): 1297-1302.
 14. Wu, Di, et al. "Catechol-modified green fluorescent protein as a specific biosensor for Al ions." *Sensors and Actuators B: Chemical* 251 (2017): 326-333.
 15. Zou, Wenping, Khoa Le, and Melissa L. Zastrow. "Live-Cell Copper-Induced Fluorescence Quenching of the Flavin-Binding Fluorescent Protein CreiLOV." *Chembiochem* 21.9 (2020): 1356-1363.
 16. Al-Omari, S. "Modeling the concentrations and efficiencies for the interacting species of pyropheophorbide methyl ester-copper association." *Biophysical Reviews and Letters* 8.01n02 (2013): 73-87.
 17. Zhong, Chunli, et al. "Rational design and bioimaging application of cholesterol conjugated fluorescence probe for Cu²⁺ detection." *Journal of Photochemistry and Photobiology A: Chemistry* 414 (2021): 113267.
 18. Zhao, Haowen, and Melissa L. Zastrow. "Transition metals induce quenching of monomeric near-infrared fluorescent proteins." *Biochemistry* 61.7 (2022): 494-504.
 19. Conmy, Sarah Angela. *Characterisation of UVA-induced DNA damage responses in human skin cells*. Diss. 2013.
 20. Hrabarova, Eva, et al. "Pull-Down Into Active Inclusion Bodies and Their Application in the Detection of (Poly)-Phosphates and Metal-Ions." *Frontiers in bioengineering and biotechnology* 10 (2022).
 21. Militello, Valeria. "Tiziana Masullo, Riccardo Puccio, Mariarosaria Di Pierro, Marcello Tagliavia, Paolo Censi, Valeria Vetri." Development of a Biosensor for Copper Detection in Aqueous Solutions Using an Anemonia sulcate Recombinant GFP, *Appl Biochem Biotechnol*, 2013, DOI 10.1007/s12010-013-0669-1
 22. Conmy, Sarah Angela. "Characterisation of UVA-induced DNA damage responses in." *Sigma* 100 (2006): 9358.
 23. Jung, Gregor. "Fluorescent Proteins: The Show Must go on!." *Fluorescent Analogs of Biomolecular Building Blocks: Design and Applications* (2016).
 24. Töpel, Tobias Alexander, and Ulrich Schwaneberg. "Functional Microgel Coatings."
 25. Mehreen, Hira, et al. "Expression and applications of HriCFP in E. coli: a novel biosensing fluorescent protein." *Journal of Microbial and Biochemical Technology* (2020).
4. Andras, CD; Csajagi, C; **Orban, CK**; Albert, C; Abraham, B.; Miklossy, I, *A possible explanation of the germicide effect of carbon dioxide in supercritical state based on molecular-biological evidence*. Medical Hypotheses, 74, 2010, p. 325-329
1. Delma, Kouka Luc, et al. "Sterilization methods of liposomes: Drawbacks of conventional methods and perspectives." *International Journal of Pharmaceutics* 597 (2021): 120271.
 2. Lourdes Calvo, Javier Casas, Sterilization of Biological Weapons in Technical Clothing and sensitive Material by High-Pressure CO₂ and water, *Industrial & Engineering Chemistry Research*, Vol. 57, Issue 13, 2018
 3. Noman, Efaq A., et al. "Supercritical Fluid CO₂ Technique for Destruction of Pathogenic Fungal Spores in Solid Clinical Wastes." *CLEAN—Soil, Air, Water* 44.12 (2016): 1700-1708.
 4. Calvo Lourdes, Diaz C., Sterilization using supercritical carbon dioxide. *Ingenieria Quimica*. 37. (2005). 222-238.
 5. Ming Ren Toh, Gigi N. C. Chiu, Liposomes as sterile preparations and limitations of sterilization techniques in liposomal manufacturing, *Asian Journal of Pharmaceutical Sciences*, Vol. 8, Issue 2, 2013, pp. 88-95.
 6. Zani, Franca & Veneziani, Cristina & Bazzoni, Elena & Maggi, Loretta & Caponetti, Giovanni & Bettini, Ruggero. (2013). Sterilization of corticosteroids for ocular and pulmonary delivery with supercritical carbon dioxide. *International Journal of Pharmaceutics*. 450. 10.1016/j.ijpharm.2013.04.055.
 7. Md Sikin, Adi & Rizvi, Syed. (2011). Recent Patents on the Sterilization of Food and Biomaterials by Super-critical Fluids. Recent patents on food, nutrition & agriculture. 3. 212-25. 10.2174/2212798411103030212.
 8. S Karajanagi, Sandeep & Yoganathan, Roshan & Mammucari, Raffaella & Park, Hyounghsin & Cox, Julian & M Zeitels, Steven & Langer, Robert & R Foster, Neil. (2011). Application of a Dense Gas Technique for Sterilizing Soft Biomaterials. *Biotechnology and bioengineering*. 108. 1716-25. 10.1002/bit.23105.

9. Yu. Zalepugin, D & A. Tilkunova, N & V. Chernyshova, I & I. Vlasov, M. (2016). Sterilization in supercritical media. Russian Journal of Physical Chemistry B. 10. 1176-1179. 10.1134/S199079311608008X.
10. Park, Hyong Seok & Yang, Jungwoo & Choi, Hee & Heon Kim, Kyoung. (2015). Effective inactivation of *Candida albicans* biofilms by using supercritical carbon dioxide. Bioprocess and biosystems engineering. 38. 10.1007/s00449-015-1414-7.
11. Pattni, Bhushan S., Vladimir V. Chupin, and Vladimir P. Torchilin. "New developments in liposomal drug delivery." Chemical reviews 115.19 (2015): 10938-10966.
12. Frerichs, Janin & Rakoczy, Jana & Ostertag-Henning, Christian & Krüger, Martin. (2013). Viability and Adaptation Potential of Indigenous Microorganisms from Natural Gas Field Fluids in High Pressure Incubations with Supercritical CO₂. Environmental science & technology. 48. 10.1021/es4027985.
13. Kirk, Matthew & Santillan, Eugenio & K. McGrath, Lucas & J. Altman, Susan. (2011). Variation in Hydraulic Conductivity with Decreasing pH in a Biologically-Clogged Porous Medium. AGU Fall Meeting Abstracts. 11. 0550-. 10.1016/j.ijggc.2012.08.003.Kirk,
14. Matthew. (2011). Variation in Energy Available to Populations of Subsurface Anaerobes in Response to Geological Carbon Storage. Environmental science & technology. 45. 6676-82. 10.1021/es201279e.

Data,
02.06.2022

Semnătura,

