

Lista de lucrări în domeniul de știință

NUMELE ȘI PRENUMELE: BODOR ZSOLT

I. LISTA PUBLICAȚIILOR RELEVANTE

1. Katalin BODOR, Róbert SZÉP, **Zsolt BODOR**, The human health risk of particulate air pollution (PM_{2.5} and PM₁₀) in Romania, *Toxicology Reports*, 9, 2022, 556-562.
2. Katalin BODOR, **Zsolt BODOR**, Alexandru SZÉP, Róbert SZÉP, Classification and hierarchical cluster analysis of principal Romanian bottled mineral waters, *Journal of Food Composition and Analysis*, 100, 2021, 103903.
3. Katalin BODOR, **Zsolt BODOR**, Alexandru SZÉP, Róbert SZÉP, Human health impact assessment and temporal distribution of trace elements in Copșa Mică- Romania, *Scientific Reports*, 11:7049, 2021.
4. **Zsolt BODOR**, Katalin BODOR, Ágnes KERESZTESI, Róbert SZÉP, Major air pollutants seasonal variation analysis and long-range transport of PM₁₀ in an urban environment with specific climate condition in Transylvania (Romania), *Environmental Science and Pollution Research*, 27, 2020, 38181–38199.
5. **Zsolt BODOR**, Andrea (Iuhász) FAZAKAS, Katalin BODOR, Erika KOVÁCS, Ildikó MIKLÓSSY, Beáta ALBERT, Using genome-scale model to predict the metabolic engineering impact on *Escherichia coli* metabolism during succinic acid production optimization, *Romanian Biotechnological Letters*, 25 (3), 2020, 1666-1676.
6. Róbert SZÉP, **Zsolt BODOR**, Ildikó MIKLÓSSY, Ion-Andrei NIȚĂ, Oana A. OPREA, Ágnes KERESZTESI, Influence of peat fires on the rainwater chemistry in intra-mountain basins with specific atmospheric circulations (Eastern Carpathins, Romania), *Science of the Total Environment*, 647, 2019, 275-289.
7. **Zsolt BODOR**, Lehel TOMPOS, Aurelia Cristina NECHIFOR, Katalin BODOR, *In silico* analysis of 1,4-butanediol heterologous pathway impact on *Escherichia coli* metabolism, *Revista de Chimie*, 70, 10, 2019, 3448-3455.
8. **Zsolt BODOR**, Szabolcs LÁNYI, Beáta ALBERT, Katalin BODOR, Aurelia Cristina NECHIFOR, Ildikó MIKLÓSSY, Model driven analysis of the biosynthesis of 1,4-butanediol from renewable feedstocks in *Escherichia coli*, *Revista de Chimie*, 70, 11, 2019, 3808-3817.

9. Ildikó MIKLÓSSY, **Zsolt BODOR**, Réka SINKLER, Kálmán Csongor ORBÁN, Szabolcs LÁNYI, Beáta ALBERT, *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, 1874-1889.
10. **Zsolt BODOR**, Andrea (Iuhasz) FAZAKAS, Erika KOVÁCS, Szabolcs LÁNYI, Beáta ALBERT, Systems biology and metabolic engineering for obtaining *E. coli* mutants capable to produce succinate from renewable resources, *Romanian Biotechnological Letters*, 19, 4, 2014, 9625-9636.

II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENȚII

A. Teza de doctorat

“Analiza, modelarea și ingineria in silico a căilor metabolice în Escherichia coli pentru obținerea acidului succinic”

Conducător de doctorat: Prof.dr.ing. Lányi Szabolcs,
Universitatea POLITEHNICA din București,
Facultatea de Chimie Aplicată și Știința Materialelor

B. Cărți publicate

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

1. **Zsolt BODOR**, Systems Biology, Constraint-Based Modeling of Metabolic Networks, *In silico* Analysis, Modeling and Engineering of *Escherichia coli* Metabolic Network for Succinic Acid Production, Editura LAP LAMBERT Academic Publishing, Chișinău, 2022, 189 pagini, ISBN: 978-620-4-75024-8.
2. BODOR Katalin, **BODOR Zsolt**, Biostatisztika, Gyakorlati jegyzet mérnök hallgatóknak, (Biostatistică, Îndrumar de laborator pentru studenți la inginerie), Editura Underground, Hédervár, 2022, 118 pagini, ISBN: (în curs de publicare).

B2. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în țară, la edituri recunoscute CNCSIS/CNCS.

1. **BODOR Zsolt**, Biofolyamatok és reaktorok modellezése, Oktatási segédanyag, Feladatgyűjtemény (Modelarea proceselor și bioreactoarelor, Material didactic, Culegeri de probleme), Editura T3, Sfântu Gheorghe, 2022, ISBN: 978-606-95430-3-0, 111 pagini.

B6. Capitole de cărți publicate în țară

1. **Zsolt BODOR**, Izabella LACZKÓ, Éva MOLNOS, Sándor MOLNOS, Abordări interdisciplinare în științele educației, Școala Altfel: Științele Naturii La Ele Acasă, Editura Aureo, Oradea, 2015, 4 pagini, ISBN:978-606-8614-98-4.

C. Lucrări științifice publicate

C1. Lucrări științifice publicate în reviste cotate ISI

1. Katalin BODOR, Róbert SZÉP, **Zsolt BODOR**, The human health risk of particulate air pollution (PM_{2.5} and PM₁₀) in Romania, *Toxicology Reports*, 9, 2022, 556-562.
2. Réka BOGA, Ágnes KERESZTESI, **Zsolt BODOR**, Szende TONK, Róbert SZÉP, Miruna Mihaela MICHEU, Source identification and exposure assessment to PM₁₀ in the Eastern Carpathians, Romania, *Journal of Atmospheric Chemistry*, 78, 2021, 77-97.
3. Réka BOGA, Ágnes KERESZTESI, **Zsolt BODOR**, Ildikó MIKLÓSSY, Ion-Andrei NITA, Marius-Victor BIRSAN, Miruna Mihaela MICHEU, Róbert SZÉP, Influence of rising temperature and solar radiation on the tropospheric ozone in the Ciuc Basin, ROMANIA, *Romania Journal of Physics*, 66(3), 2021.
4. Katalin BODOR, **Zsolt BODOR**, Alexandru SZÉP, Róbert SZÉP, Classification and hierarchical cluster analysis of principal Romanian bottled mineral waters, *Journal of Food Composition and Analysis*, 100, 2021, 103903.
5. Katalin BODOR, **Zsolt BODOR**, Alexandru SZÉP, Róbert SZÉP, Human health impact assessment and temporal distribution of trace elements in Copșa Mică-Romania, *Scientific Reports*, 11:7049, 2021.

6. Katalin BODOR, **Zsolt BODOR**, Róbert SZÉP, Spatial distribution of trace elements (As, Cd, Ni, Pb) from PM₁₀ aerosols and human health impact assessment in an Eastern European country, Romania, *Environ Monit Assess*, 193(4):176, 2021.
7. Katalin BODOR, Miruna Mihaela MICHEU, Ágnes KERESZTESI, Marius-Victor BIRSAN, Ion-Andrei NITA, **Zsolt BODOR**, Sándor PETRES, Attila KORODI, Róbert SZÉP, Effects of PM₁₀ and Weather on Respiratory and Cardiovascular Diseases in the Ciuc Basin (Romanian Carpathians), *Atmosphere*, 12, 289, 2021.
8. Ágnes KERESZTESI, Ion-Andrei NIȚĂ, Réka BOGA, Marius-Victor BÎRSAN, **Zsolt BODOR**, Róbert SZÉP, Spatial and long-term analysis of rainwater chemistry over the conterminous United States, *Environmental Research*, 188, 2020, 109872.
9. **Zsolt BODOR**, Katalin BODOR, Ágnes KERESZTESI, Róbert SZÉP, Major air pollutants seasonal variation analysis and long-range transport of PM₁₀ in an urban environment with specific climate condition in Transylvania (Romania), *Environmental Science and Pollution Research*, 27, 2020, 38181–38199.
10. **Zsolt BODOR**, Andrea (Iuhász) FAZAKAS, Katalin BODOR, Erika KOVÁCS, Ildikó MIKLÓSSY, Beáta ALBERT, Using genome-scale model to predict the metabolic engineering impact on *Escherichia coli* metabolism during succinic acid production optimization, *Romanian Biotechnological Letters*, 25 (3), 2020, 1666-1676.
11. Katalin BODOR, **Zsolt BODOR**, Robert SZÉP, The Trend of Trace Elements (Cd, Ni, Pb) from PM_{2.5} and PM₁₀ Aerosols and its Effect on Human Health in Bucharest, Romania, *Revista de Chimie*, 71 (3), 2020, 433-439.
12. Ágnes KERESZTESI, Ion-Andrei NIȚĂ, Marius-Victor BÎRSAN, **Zsolt BODOR**, Róbert SZÉP, The risk of cross-border pollution and the influence of regional climate on the rainwater chemistry in the Southern Carpathians, Romania, *Environmental Science and Pollution Research*, 27, 2020, 9382–9402.
13. Ágnes KERESZTESI, Ion-Andrei NIȚĂ, Marius-Victor BÎRSAN, **Zsolt BODOR**, Tímea PERNYESZI, Róbert SZÉP, Assessing the variations in the chemical composition of rainwater and air masses using the zonal and meridional index, *Atmospheric Research*, 237, 2020, 104846.

14. Ágnes KERESZTESI, Marius-Victor BÎRSAN, Ion-Andrei NIȚĂ, **Zsolt BODOR**, Róbert SZÉP, Assessing the neutralization, wet deposition and source contributions of the precipitation chemistry over Europe during 2000-2017, *Environmental Sciences Europe*, 31:50, 2019.
15. Róbert SZÉP, **Zsolt BODOR**, Ildikó MIKLÓSSY, Ion-Andrei NIȚĂ, Oana A. OPREA, Ágnes KERESZTESI, Influence of peat fires on the rainwater chemistry in intra-mountain basins with specific atmospheric circulations (Eastern Carpathians, Romania), *Science of the Total Environment*, 647, 2019, 275-289.
16. **Zsolt BODOR**, Lehel TOMPOS, Aurelia Cristina NECHIFOR, Katalin BODOR, *In silico* analysis of 1,4-butanediol heterologous pathway impact on *Escherichia coli* metabolism, *Revista de Chimie*, 70, 10, 2019, 3448-3455.
17. Ágnes KERESZTESI, Réka BOGA, **Zsolt BODOR**, Katalin BODOR, Szende TONK, György DEÁK, Ion-Andrei NITA, The analysis of the chemical composition of precipitation during the driest year from the last decade, *Present Environment and Sustainable Development*, 13, 1, 2019.
18. Réka BOGA, **Zsolt BODOR**, Katalin BODOR, Szende TONK, György DEÁK, Tímea PERNYESZI, Ion-Andrei NITA, The influence of evapotranspiration and wet deposition on the variations of PM₁₀ concentration in the Ciuc basin, *Present Environment and Sustainable Development*, 13, 1, 2019.
19. **Zsolt BODOR**, Szabolcs LÁNYI, Beáta ALBERT, Katalin BODOR, Aurelia Cristina NECHIFOR, Ildikó MIKLÓSSY, Model driven analysis of the biosynthesis of 1,4-butanediol from renewable feedstocks in *Escherichia coli*, *Revista de Chimie*, 70, 11, 2019, 3808-3817.
20. Róbert SZÉP, Elena MATEESCU, Ion-Andrei NIȚĂ, Marius-Victor BÎRSAN, **Zsolt BODOR**, Ágnes KERESZTESI, Effects of the Eastern Carpathians on atmospheric circulations and precipitation chemistry from 2006 to 2016 at four monitoring stations (Eastern Carpathians, Romania), *Atmospheric Research*, 214, 311-328, 2018, 311-328.
21. BOTH Emese, **BODOR Zsolt**, ALBERT Beáta, Effect of microencapsulation on viability and survival in simulated gut conditions of probiotic bacteria, *Romanian Biotechnological Letters*, 23, 6, 2018.

22. Ildikó MIKLÓSSY, **Zsolt BODOR**, Réka SINKLER, Kálmán Csongor ORBÁN, Szabolcs LÁNYI, Beáta ALBERT, *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), 2017, 1874-1889.
23. Andrea (Iuhasz) FAZAKAS, Erika KOVÁCS, **Zsolt BODOR**, Szabolcs LÁNYI, Beáta ÁBRAHÁM, Production of chemicals with genetically modified *Escherichia coli* strains from renewable resources, *Studia Universitatis Babeş-Bolyai Seria Chimia*, LXI, 2, 2016, 35-46.
24. **Zsolt BODOR**, Andrea (Iuhasz) FAZAKAS, Erika KOVÁCS, Szabolcs LÁNYI, Beáta ALBERT, Systems biology and metabolic engineering for obtaining *E. coli* mutants capable to produce succinate from renewable resources, *Romanian Biotechnological Letters*, 19, 4, 2014, 9625-9636.
25. **Zsolt BODOR**, Andrea (Iuhasz) FAZAKAS, Erika KOVÁCS, Szabolcs LÁNYI, Beáta ÁBRAHÁM, Biotechnological production of succinic acid from glycerol; the role of co-substrates, *Studia Universitatis Babeş-Bolyai Seria Chimia*, LIX, 2, 2014, 33-50.
26. Andrea (Iuhasz) FAZAKAS, **Zsolt BODOR**, Erika KOVÁCS, Éva LASLO, Szabolcs LÁNYI, Beáta ÁBRAHÁM, Isolation of succinic acid-producing *Escherichia coli* from animal faeces, *Studia Universitatis Babeş-Bolyai Seria Chimia*, 59, Iss. 1, 2014, 177-185.
27. **Zsolt BODOR**, Csongor Kálmán ORBÁN, Ildikó MIKLÓSSY, Katalin JUHÁSZ, Beáta ÁBRAHÁM, Szabolcs LÁNYI, Heterologous expression of *Bacillus licheniformis* α -amylase in *Pichia pastoris*, *Studia Universitatis Babeş-Bolyai Seria Chimia*, LIV, Sp Iss., 2010, 9-23.

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

- 1) Katalin BODOR, **Zsolt BODOR**, Ágnes KERESZTESI, Róbert SZÉP, PM₁₀ concentration reduction due to the wet scavenging in the Ciuc Basin, Romania, *Acta Univ. Sapientiae, Agriculture and Environment*, 12, 2020, 1-8. ((AGRICOLA (National

Agricultural Library), Baidu Scholar, CABI (over 50 subsections), CNKI Scholar (China National Knowledge Infrastructure), CNPIEC, DOAJ (Directory of Open Access Journals), EBSCO (relevant databases), EBSCO Discovery Service, Genamics JournalSeek, Google Scholar, Japan Science and Technology Agency (JST), J-Gate, JournalTOCs, KESLI-NDSL (Korean National Discovery for Science Leaders), Microsoft Academic, Naviga (Softweco), Publons, Primo Central (ExLibris), ReadCube, Sherpa/RoMEO, Summon (Serials Solutions/ProQuest), TDOne (TDNet), Ulrich's Periodicals Directory/ulrichsweb, WanFang Data, WorldCat (OCLC)).

- 2) Katalin BODOR, **Zsolt BODOR**, Róbert SZÉP, Alexandru SZÉP, Characterization of some bottled Romanian mineral waters on the basis of the total mineral content, *Acta Univ. Sapientiae, Alimentaria*, 13, 2020, 85-98. ((AGRICOLA (National Agricultural Library), Baidu Scholar, CABI (over 50 subsections), CNKI Scholar (China National Knowledge Infrastructure), CNPIEC, DOAJ (Directory of Open Access Journals), EBSCO (relevant databases), EBSCO Discovery Service, Genamics JournalSeek, Google Scholar, Japan Science and Technology Agency (JST), J-Gate, JournalTOCs, KESLI-NDSL (Korean National Discovery for Science Leaders), Microsoft Academic, Naviga (Softweco), Publons, Primo Central (ExLibris), ReadCube, Sherpa/RoMEO, Summon (Serials Solutions/ProQuest), TDOne (TDNet), Ulrich's Periodicals Directory/ulrichsweb, WanFang Data, WorldCat (OCLC)).
- 3) **Zsolt BODOR**, Andrea (Iuhasz) FAZAKAS, Szabolcs LÁNYI, Beáta ÁBRAHÁM, *In silico* modelling and metabolic engineering of *Escherichia coli* to succinic acid production, *U.P.B. Sci. Bull., Series B*, Vol. 76, Iss. 4, 2014, 59-70. (ISI THOMSON REUTERS, ULRICHTS INTERNATIONAL PERIODICALS DIRECTORY, INSPEC, SCOPUS, CAMBRIDGE SCIENTIFIC ABSTRACTS, CHEMICAL ABSTRACTS SERVICE - DIVISION OF AMERICAN CHEMICAL SOCIETY, ELSEVIER SCIENCESeS BIBLIOGRAPHIC DATABASES, METALS ABSTRACTS, ENGINEERING VILLAGE, PUBLICATION IN ENGINEERING, METADEX, COMPENDEX).
- 4) Emese BOTH, László GYENGE, **Zsolt BODOR**, Éva GYÖRGY, Beáta ÁBRAHÁM, Szabolcs LÁNYI, Intensification of probiotic microorganisms viability by microencapsulation using ultrasonic atomizer, *U.P.B. Sci. Bull., Series B*, Vol. 74, Iss. 1, 2012, 27-32. (ISI THOMSON REUTERS, ULRICHTS INTERNATIONAL PERIODICALS DIRECTORY, INSPEC, SCOPUS, CAMBRIDGE SCIENTIFIC ABSTRACTS, CHEMICAL ABSTRACTS SERVICE - DIVISION OF AMERICAN CHEMICAL SOCIETY, ELSEVIER SCIENCESeS BIBLIOGRAPHIC DATABASES, METALS ABSTRACTS, ENGINEERING VILLAGE, PUBLICATION IN ENGINEERING, METADEX, COMPENDEX).

C3. Lucrări științifice publicate în reviste din țară, recunoscută CNCSIS (altele decât cele din baze de date internaționale).

1. MOLNOS Éva, LACZKÓ Izabella, **BODOR Zsolt**, The results of a questionnaire on the guidelines, directions and strategies in modern teaching, Human Education Today For Tomorrow's World, ISSN:1843-9985, în curs de publicare, 2015.
2. **Zsolt BODOR**, Izabella LACZKÓ, Éva MOLNOS, Sándor MOLNOS, Biology and chemistry courses in the "Other type of school week", Human Education Today For Tomorrow's world, ISSN:1843-9985, nr. 11, pp. 26-30, 2014.

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

1. FAZAKAS (IUHASZ) Andrea, **BODOR Zsolt**, KOVÁCS Erika, LÁNYI Szabolcs, ÁBRAHÁM Beáta, Gene knockout using λ -Red recombination system in *Escherichia coli*, *Technical Review (Műszaki Szemle)*, nr. 63, 2014, 10-15.

C6. Lucrări științifice publicate în volumele manifestărilor științifice

- 1) **BODOR Zsolt**, KUZMAN-Ildikó Hajnalka, BOTH-Fodor Márta, BARTOS Hunor, Lányi Szabolcs, Miklóssy Ildikó, *In silico* modeling and evaluation of *Basfia succiniciproducens* for 1,4-butanediol production from renewable resources, MATHMODEL'17, Mathematical modeling technological and socio-economic processes, Proceedings, ISSUE 1/2017, 2017, 133.
- 2) **BODOR Zsolt**, KUZMAN-Ildikó Hajnalka, BOTH-FODOR Márta, LÁNYI Szabolcs, MIKLÓSSY Ildikó, FBA-based metabolic engineering of *Basfia succiniciproducens* for production of high-added value compounds, ECBS 2017 5th European Chemical Biology Symposium, Program & Book of Abstracts, ISBN: 978-963-9970-75-5, 52, 2017.
- 3) Éva LASLÓ, Éva GYÖRGY, Éva TAMÁS, **Zsolt BODOR**, Szabolcs LÁNYI, Effect of beneficial bacterial strains isolated from wild plant roots and rhizosphere on the seed germination and plant growth of cultivated crops, Agrisafe Final Conference, Climate change: challenges and opportunities in agriculture, ISBN: 978-963-8351-37-1, 250-254, 2011.

E. Editare, coordonare de volume

- 1) Educația omului de azi pentru lumea de mâine (Human education today for tomorrow's world) - ISSN 1843-9985, 2015-

F. Brevete de invenții și alte titluri de proprietate

- 1) “TULPINĂ DE BACILLUS SP. SZE 102A UTILIZATĂ ÎN PROCESUL DE ÎNSILOZARE A PLANTELOR FURAJERE”, Nr. 130921, 30.12.2019, SC. CORAX BIONER CEU SA.
- 2) “TULPINĂ DE BACILLUS SP. SZX 102 UTILIZATĂ ÎN PROCESUL DE ÎNSILOZARE A PLANTELOR FURAJERE”, Nr. 130922, 30.12.2019, SC. CORAX BIONER CEU SA.
- 3) “TULPINĂ DE LACTOBACILLUS PLANTARUM SUBSP. PLANTARUM UTILIZATĂ ÎN PROCESUL DE ÎNSILOZARE A PLANTELOR FURAJERE”, Nr. 130894, 29.03.2019, SC. CORAX BIONER CEU SA.