Lista de lucrări

Lect. Dr. László Csaba Bencze

a) Lista celor 10 articole reprezentative pentru realizările personale proprii

1. Nagy, E.Z.A., Tork, S.D., Lang, P.A., Filip, A., Irimie, F.D., Poppe, L., Toşa, M.I., Schofield, C.J., Brem, J., Paizs, C., Bencze L. C. Mapping the Hydrophobic Substrate Binding Site of Phenylalanine Ammonia-Lyase from Petroselinum crispum, *ACS Catal.* **2019**, *9*, 8825-8834, (I.f. 12.221) – autor corespondent

2. Boros K., Moisă M.E., Nagy C.L., Paizs C., Toşa M.I., Bencze L.C. Robust, site-specifically immobilized phenylalanine ammonia-lyases for the enantioselective ammonia addition of cinnamic acids, *Catal. Sci. Technol*., **2021**, *11*(16): 5553-5563, (I.f. 6.119) - autor corespondent

3. Duță H., Filip A., Nagy L.C., Nagy E.Z.A., Tőtős R., Bencze L.C. Toolbox for the structure-guided evolution of ferulic acid decarboxylase, *Sci. Rep*., **2022**, *12*, 1-11 (I.f. 4.380) – autor corespondent

4. Moisă M.E., Amariei D.A., Nagy E.Z.A., Szarvas N., Toşa M.I., Paizs C., Bencze L.C. Fluorescent enzyme-coupled activity assay for phenylalanine ammonia-lyases, *Sci. Rep*., **2020**, *10*(1): 18418, (I.f. 4.379) – autor corespondent

5. Tomoiagă R.B., Tork S.D., Horváth I., Filip A., Nagy L.C., Bencze L.C. Saturation mutagenesis for phenylalanine ammonia lyases of enhanced catalytic properties, *Biomolecules*, **2020**, *10*(6): 838, (I.f. 4.879) – autor corespondent

6. Tork S.D., Nagy E.Z.A., Cserepes L., Bordea D.M., Nagy B., Toşa M.I., Paizs C., Bencze L.C. The production of L- and D-phenylalanines using engineered phenylalanine ammonia lyases from Petroselinum crispum, *Sci. Rep.*, **2019**, *9*(1): 20123, (I.f. 3.998) – autor corespondent

7. Nagy, E.Z.A., Nagy, C.L., Filip, A., Nagy, K., Gál, E., Tőtős, R., Poppe, L., Paizs, C., Bencze, L.C. Exploring the substrate scope of ferulic acid decarboxylase (FDC1) from Saccharomyces cerevisiae, *Sci. Rep.*, **2019**, *9*, art. no. 647, (I.f. 4.525) – autor corespondent

8. Filip, A., Nagy, E.Z.A., Tork, S.D., Bánóczi, G., Toşa, M.I., Irimie, F.D., Poppe, L., Paizs, C., Bencze, L.C. Tailored Mutants of Phenylalanine Ammonia-Lyase from Petroselinum crispum for the Synthesis of Bulky L- and D-Arylalanines, *ChemCatChem*, **2018**, *10*, 2627-2633, (I.f. 4.495) – autor corespondent

9. Andolina, G., Bencze, L.C., Zerbe, K., Müller, M., Steinmann, J., Kocherla, H., Mondal, M., Sobek, J., Moehle, K., Malojčić, G., Wollscheid, B., Robinson, J.A. A Peptidomimetic Antibiotic Interacts with the Periplasmic Domain of LptD from Pseudomonas aeruginosa, *ACS Chem. Biol.*, **2018**, *13*, 666-675, (I.f. 4.347) – prim autor

10. Bencze, L.C., Bartha-Vári, J.H., Katona, G., Toşa, M.I., Paizs, C., Irimie, F.D. Nanobioconjugates of *Candida antarctica* lipase B and single-walled carbon nanotubes in biodiesel production, *Bioresource Technology* **2016**, *200*, 853-860, (I.f. 4.917) - prim autor

b) Teza de doctorat

Titlu: Căi biocatalitice pentru sinteza heteroaril-1,2-etandiolilor de înaltă enantiopuritate (Biocatalytic approach towards enantiomerically enriched heteroaryl-1,2-ethanediols)
Loc susţinere: Universitatea Babeş-Bolyai, Cluj-Napoca
Data susţinerii: 24.03.2011
Conducător ştiinţific: Prof. Dr. Florin Dan Irimie

c) Brevete de invenţie şi alte titluri de proprietate industrială
Nu este cazul

d) Cărţi şi capitole în cărţi
1. Nagy, E.Z.A., Tork S.D., Filip A., Poppe L., Toșa M.I., Paizs, C., Bencze, L.C. 5.5 Production of L-and D-Phenylalanine Analogues Using Tailored Phenylalanine Ammonia-Lyases, chapter in book entitled *Applied Biocatalysis: The Chemist's Enzyme Toolbox*, **2021**, Editor: Wiley-VCH, ISBN: 9781119487012
2. Irimie, F.D., Paizs, C., Toşa, M.I., Bencze, L.C. Biodiesel, a Green Fuel Obtained Through Enzymatic Catalysis, bookchapter in *Biomass as Renewable Raw Material to Obtain Bioproducts of High-Tech Value*, **2018**, pg. 191-234, Editor: Elsevier, ISBN: 9780444637741
3. Filip, A., Bencze, L.C. *Biochimie avansată, lucrări practice*, Editor: Napoca Star, Cluj-Napoca, **2017**, ISBN:978-606-690-518-3
4. Paizs, C., Katona, A., Bencze, L.C., Brem, J. *Insights in pure and applied biocatalysis*, Editor: Napoca Star, Cluj-Napoca, **2015**, ISBN:978-606-690-258-8

e) Articole/studii publicate în reviste din fluxul ştiinţific internaţional principal

1. Duță H., Filip A., Nagy L.C., Nagy E.Z.A., Tőtős R., Bencze L.C. Toolbox for the structure-guided evolution of ferulic acid decarboxylase, *Sci. Rep*., **2022**, *12*, 1-11 (I.f. 4.380)

2. Dudu A.I., Bencze L.C., Paizs C., Tosa M.I. Deep eutectic solvents–a new additive in the encapsulation of lipase B from Candida antarctica: biocatalytic applications, *React. Chem. Eng.*, **2022,** *7***,** 442-449 (I.f. 4.239).

3. Gal C.A., Barabás L.E., Bartha-Vári J.-H., Moisă M.E., Balogh-Weiser D., Bencze L.C., Poppe L., Paizs C., Toșa M.I. Lipase on carbon nanotubes – an active, selective, stable and easy-to-optimize nanobiocatalyst for kinetic resolutions, *React. Chem. Eng.*, **2021**, *6*, 2391-2399 (I.f. 4.239).

4. Boros K., Moisă M.E., Nagy C.L., Paizs C., Toşa M.I., Bencze L.C. Robust, site-specifically immobilized phenylalanine ammonia-lyases for the enantioselective ammonia addition of cinnamic acids, *Catal. Sci. Technol*., **2021**, *11*(16): 5553-5563, (I.f. 6.119).

5. Dudu A.I., Lacatus M.A., Bencze L.C., Paizs C., Tosa M.I. Green Process for the Enzymatic Synthesis of Aroma Compounds Mediated by Lipases Entrapped in Tailored Sol-Gel Matrices, *ACS Sust. Chem. Eng*., **2021**, *9*(15): 5461-5469, (I.f. 8.198).

6. Varga A., Csuka P., Sonesouphap O., Bánóczi G., Toşa M.I., Katona G., Molnár Z., Bencze L.C., Poppe L., Paizs C. A novel phenylalanine ammonia-lyase from Pseudozyma antarctica for stereoselective biotransformations of unnatural amino acids, *Catal. Today*, **2021**, *366*(8): 185-194, (I.f. 6.766).

7. Bába L.-I., Kolcsár M., Gáll Z., Bencze L.C., Man A., Kun I.Z. Protein level alteration of endocannabinoid system components after chronic, oral self-administration of three atypical antipsychotics in rat, *Acta Marisiensis - Seria Medica*, **2021**, *67*(1): 60-66

8. Lăcătuş M.A., Dudu A.I., Bencze L.C., Katona G., Irimie F.-D., Paizs C., Toşa M.I. Solvent-Free Biocatalytic Synthesis of 2,5-bis-(Hydroxymethyl)Furan Fatty Acid Diesters from Renewable Resources, *ACS Sust. Chem. Eng*, **2020**, *8*(3): 1611-1617, (I.f. 8.198).

9. Moisă M.E., Amariei D.A., Nagy E.Z.A., Szarvas N., Toşa M.I., Paizs C., Bencze L.C. Fluorescent enzyme-coupled activity assay for phenylalanine ammonia-lyases, *Sci. Rep*., **2020**, *10*(1): 18418, (I.f. 4.379).

10. Tomoiagă R.B., Tork S.D., Horváth I., Filip A., Nagy L.C., Bencze L.C. Saturation mutagenesis for phenylalanine ammonia lyases of enhanced catalytic properties, *Biomolecules*, **2020**, *10*(6): 838, (I.f. 4.879).

11. Bartha-Vári J.-H., Moisă M.E., Bencze L.C., Irimie F.-D., Paizs C., Toşa M.I. Efficient biodiesel production catalyzed by nanobioconjugate of lipase from pseudomonas fluorescens, *Molecules*, **2020**, *25*(3): 651, (I.f. 4.411)

12. Spelmezan C.G., Bencze L.C., Katona G., Irimie F.D., Paizs C., Toşa M.I Effcient and stable magnetic chitosan-lipase B from candida antarctica bioconjugates in the enzymatic kinetic resolution of racemic heteroarylethanols, *Molecules*, **2020**, *25*(2): 350, (I.f. 4.411)

13. Tork S.D., Nagy E.Z.A., Cserepes L., Bordea D.M., Nagy B., Toşa M.I., Paizs C., Bencze L.C. The production of L- and D-phenylalanines using engineered phenylalanine ammonia lyases from Petroselinum crispum, *Sci. Rep.*, **2019**, *9*(1): 20123, (I.f. 3.998)

14. Nagy, E.Z.A., Tork, S.D., Lang, P.A., Filip, A., Irimie, F.D., Poppe, L., Toşa, M.I., Schofield, C.J., Brem, J., Paizs, C., Bencze L. C. Mapping the Hydrophobic Substrate Binding Site of Phenylalanine Ammonia-Lyase from Petroselinum crispum, *ACS Catal.* **2019**, *9*, 8825-8834, (I.f. 12.221).

15. Nagy, E.Z.A., Nagy, C.L., Filip, A., Nagy, K., Gál, E., Tőtős, R., Poppe, L., Paizs, C., Bencze, L.C. Exploring the substrate scope of ferulic acid decarboxylase (FDC1) from Saccharomyces cerevisiae, *Sci. Rep.*, **2019**, *9*, art. no. 647, (I.f. 4.525).

16. Moisă, M.E., Poppe, L., Gal, C.A., Bencze, L.C., Irimie, F.D., Paizs, C., Peter, F., Toşa, M.I., Click reaction-aided enzymatic kinetic resolution of secondary alcohols, *React. Chem. Eng.*, **2018**, *3*, 790-798, (I.f. 4.641).

17. Cristina, A., Leonte, D., Vlase, L., Bencze, L.C., Imre, S., Marc, G., Apan, B., Mogosan, C., Zaharia, V. Heterocycles 48. synthesis, characterization and biological evaluation of imidazo[2,1-b][1,3,4]thiadiazole derivatives as anti-inflammatory agents, *Molecules*, **2018**, *23*, art. no. 2425, (I.f. 3.060).

18. Lăcătuş, M.A., Bencze, L.C., Toşa, M.I., Paizs, C., Irimie, F.-D., Eco-Friendly Enzymatic Production of 2,5-Bis(hydroxymethyl)furan Fatty Acid Diesters, Potential Biodiesel Additives, *ACS Sustain. Chem. Eng.*, **2018**, *6*, 11353-11359, (I.f. 6.970).

19. Filip, A., Nagy, E.Z.A., Tork, S.D., Bánóczi, G., Toşa, M.I., Irimie, F.D., Poppe, L., Paizs, C., Bencze, L.C. Tailored Mutants of Phenylalanine Ammonia-Lyase from Petroselinum crispum for the Synthesis of Bulky L- and D-Arylalanines, *ChemCatChem*, **2018**, *10*, 2627-2633, (I.f. 4.495).

20. Coman, F.-M., Mbaveng, A.T., Leonte, D., Bencze, L.C., Vlase, L., Imre, S., Kuete, V., Efferth, T., Zaharia, V. Heterocycles 44. Synthesis, characterization and anticancer activity of new thiazole ortho-hydroxychalcones, *Med. Chem. Res.*, **2018**, *27*, 1396-1407, (I.f. 1.607).

21. Andolina, G., Bencze, L.C., Zerbe, K., Müller, M., Steinmann, J., Kocherla, H., Mondal, M., Sobek, J., Moehle, K., Malojčić, G., Wollscheid, B., Robinson, J.A. A Peptidomimetic Antibiotic Interacts with the Periplasmic Domain of LptD from Pseudomonas aeruginosa, *ACS Chem. Biol.*, **2018**, *13*, 666-675, (I.f. 4.347).

22. Csuka, P., Juhász, V., Kohári, S., Filip, A., Varga, A., Sátorhelyi, P., Bencze, L.C., Barton, H., Paizs, C., Poppe, L. Pseudomonas fluorescens Strain R124 Encodes Three Different MIO Enzymes, *ChemBioChem*, **2018**, *19*, 411-418, (I.f. 2.774).

23. Cristina, A., Leonte, D., Vlase, L., Bencze, L.C., Imre, S., Zaharia, V. Heterocycles 42. Synthesis and characterization of new thiazolo[3,2-b] [1,2,4]triazole derivatives with anti-inflammatory potential, *Farmacia*, **2018**, *66*, 88-96, (I.f. 1.507).

24. Constantinescu, T., Leonte, D., Bencze, L.C., Vlase, L., Imre, S., Hanganu, D., Zaharia, V. Heterocycles 43. Synthesis, characterization and antioxidant activity of some thiazole hydroxychalcones and their flavonoidic derivatives, *Farmacia*, **2018**, *66*, 663-673, (I.f. 1.507).

25. Cristina, A., Leonte, D., Vlase, L., Bencze, L.C., Imre, S., Apan, B., Mogoșan, C., Zaharia, V., Heterocycles 46. Synthesis, characterization and biological evaluation of thiazolo[3,2-b][1,2,4]triazoles bearing benzenesulfonamide moiety, *Farmacia*, **2018**, *66*, 883-893, (I.f. 1.507).

26. Balázsi, J., Paizs, C., Irimie, F.-D., Toşa, M.I., Bencze, L.C., Tőtős, R. Validated LC-MS/MS method for the concomitant determination of amoxicillin and clavulanic acid from human plasma, *Stud. Univ. Babes-Bol*, **2017**, *62*, 167-178, (I.f. 0.244).

27. Moisă, M.E., Spelmezan, C.G., Paul, C., Bartha-Vári, J.H., Bencze, L.C., Irimie, F.D., Paizs, C., Péter, F., Toşa, M.I. Tailored sol-gel immobilized lipase preparates for the enzymatic kinetic resolution of heteroaromatic alcohols in batch and continuous flow systems, RSC Advances, **2017**, *7*, 52977-52987.

28. Varga, A., Bata, Z., Csuka, P., Bordea, D.M., Vértessy, B.G., Marcovici, A., Irimie, F.D., Poppe, L., Bencze, L.C. A novel phenylalanine ammonia-lyase from *Kangiella koreensis*, *Stud. Univ. Babes-Bol*, **2017**, *62*, 293-308, (I.f. 0.244)

29. Bata, Z., Qian, R., Roller, A., Horak, J., Bencze, L.C., Paizs, C., Hammerschmidt, F., Vértessy, B.G., Poppe, L. A methylidene group in the phosphonic acid analogue of phenylalanine reverses the enantiopreference of binding to phenylalanine ammonia-lyases, *Adv. Synth. Catal.*, **2017**, *352*, 2109-2120, (I.f. 5.646)

30. Leonte, D., Bencze, L.C., Tőtős, R., Zaharia, V. Heterocycles 41. Synthesis and characterisation of new thiazole β-amino acids and β-amino esters. *Farmacia*, **2017**, *65*, 207-213, (I.f. 0.918)

31. Nagy, B., Galla, Z., Bencze, L.C., Toşa, M.I., Paizs, C., Forró, E., Fülöp, F. Covalently immobilized lipases are efficient stereoselective catalysts for the kinetic resolution of *rac*-(5-phenylfuran-2-yl)-β-alanine ethyl ester hydrochlorides. *Eur. J. Org. Chem.*, **2017**, *20*, 2878-2882, (I.f. 2.834)

32. Bencze, L.C., Filip, A., Bánóczi, G., Toşa, M.I., Irimie, F.D., Gellért, Á., Poppe, L., Paizs, C. Expanding the substrate scope of phenylalanine ammonia-lyase from: Petroselinum crispum towards styrylalanines. *Org. Biomol. Chem.*, **2017**, *15*, 3717-3727, (I.f. 3.564)

33. Bartha-Vári, J.H., Bencze, L.C., Bell, E., Poppe, L., Katona, G., Irimie, F.-D., Paizs, C., Toşa, M.I. Aminated single-walled carbon nanotubes as carrier for covalent immobilization of phenylalanine ammonia-lyase. *Period. Polytech. Chem.*, **2016**, *61*, 59-66, (I.f. 0.557)

34. Dima, N.A., Filip, A., Bencze, L.C., Olah, M., Satorhelyi, P., Vertessy, B., Poppe, L., Paizs, C. Expression and purification of recombinant phenyalanine-ammonia lyase from *Petroselinum crispum*. *Stud. Univ. Babes-Bol.*, **2016**, *61*, 21-34, (I.f. 0.244)

35. Varga, A., Filip, A., Bencze, L.C., Satorhelyi, P., Bell, E., Vertessy, B., Poppe, L., Paizs, C. Expression and purification of recombinant phenyalanine-2,3-aminomutase from *Pantoea agglomerans*. *Stud. Univ. Babes-Bol.*, **2016**, *61*, 7-19, (I.f. 0.244)

36. Varga, A., Bánoczi,G., Nagy, B., Bencze, L.C., Tosa, M.I., Gellért, Á., Irimie, F.D., Rétey, J. Poppe, L., Paizs, C. Influence of the aromatic moiety in α- and β-arylalanines on their biotransformation with phenylalanine 2,3-aminomutase from *Pantoea agglomerans*. *RSC Adv.* **2016**, 6, 56412-56420, (I.f. 3.289)

37. Ender, F., Weiser, D., Nagy, B., Bencze, L.C., Paizs, C., Palovics, P, Poppe, L. Microfluidic multiple cell chip reactor filled with enzyme-coated magnetic nanoparticles - An efficient and flexible novel tool for enzyme catalyzed biotransformations, *J. Flow Chem.* **2016**, *6*, 43-52, (I.f. 1.942)

38. Leonte, D., Bencze, L.C., Paizs, C., Toşa, M.I., Zaharia, V., Irimie, F.D. Single-walled carbon nanotubes-bound *N*,*N*-diethyl ethanolamine as mild and efficient racemisation agent in the enzymatic DKR of 2-arylthiazol-4-yl-alanines, *Molecules* **2016**, *21*, 25-40, (I.f. 2.465)

39. Bencze, L.C., Bartha-Vári, J.H., Katona, G., Toşa, M.I., Paizs, C., Irimie, F.D. Nanobioconjugates of *Candida antarctica* lipase B and single-walled carbon nanotubes in biodiesel production, *Bioresource Technol.* **2016**, *200*, 853-860, (I.f. 4.917)

40. Filip A., Bencze L.C., Paizs C., Poppe L., Irimie F.D. MIO-enzyme toolbox: cloning, expression and purification of recombinant *Rt*PAL, *Stud. Univ. Babes-Bol.*, *Biologica*, Sp. Iss., **2015**, 39-43 (articol BDI)

41. Weiser, D., Bencze, L.C., Bánóczy, G., Ender, F., Kiss, R., Kókai, E., Szilágyi, A., Vértessy, B., Farkas, Ö., Paizs, C., Poppe L. Phenylalanine ammonia-lyase catalyzed deamination of an acyclic amino acid - Enzyme mechanistic studies aided by a novel microreactor filled with magnetic nanoparticles, *ChemBioChem* **2015**, *16*, 2283-2288, (I.f. 2.850)

42. Bencze, L.C., Komjáti, B., Pop, L.A., Paizs, C., Irimie, F.D., Nagy, J., Poppe, L., Toşa, M.I. Synthesis of enantiopure L-(5-phenylfuran-2-yl)alanines by a sequential multienzyme process, *Tetrahedron-Asymmetr.* **2015**, *26*, 1095-1101, (I.f. 2.115)

43. Leonte, D., Bencze, L.C., Paizs, C., Irimie, F.D., Zaharia, V. Biocatalytic synthesis of new heterocyclic Mannich bases and derivatives, *Molecules* **2015**, *20*, 12300-12313, (I.f. 2.465)

44. Brem, J., Bencze, L. C., Liljeblad, A., Turcu, M. C., Paizs, C., Irimie, F. D., Kanerva, L. T.: Chemoenzymatic preparation of 1-heteroarylethanamines of low solubility, *Eur. J. Org. Chem.*, **2012**, 3288-3294, (I.f. 3.329)

45. Pop, L.A., Lassalas, P., Bencze, L. C., Tosa, M. I., Nagy, B., Irimie, F. D., Hoarau, C.: Chemoenzymatic synthesis of highly enantiomerically enriched secondary alcohols with a thiazolic core, *Tetrahedron-Asymmetr.* **2012**, *23*, 474-481, (I.f. 2.652)

46. Mara, A. N., Bencze, L. C., Brem, J., Paizs, C., Irimie, F. D., Tosa, M. I.: Sequential enzymatic procedure for the preparation of enantiomerically pure 2-heteroaryl-2-hydroxyacetic acids, *Tetrahedron-Asymmetr.* **2012**, *23*, 181-187, (I.f. 2.652)

47. Trif, M., Kalló, N. H., Mara, A. N., Bencze, L. C.: Stereoselective bioreduction of 1-(5-phenylfuran-2-yl)ethanones mediated by baker's yeast, *Biocatal. Biotransfor.* **2012**, *30, 177-183,* (I.f. 0.895)

48. Bencze, L. C., Paizs, C., Tosa, M. I., Irimie, F. D. : Sequential regio- and enantioselective enzymatic reactions for the kinetic resolution of racemic 1-(5-phenylfuran-2-yl)-1,2-ethanediols, *Tetrahedron-Asymmetr.* **2011**, *22*, 675-683, (I.f. 2.652)

49. Bencze, L. C., Paizs, C., Tosa, M. I., Irimie, F. D., Rétey, J.: Chemoenzymatic synthesis of both (*R*)- and (*S*)-aryl-1,2-ethanediols, *ChemCatChem*, **2011,** *3*, 343, (I.f. 5.207)

50. Paizs, C., Tosa, M. I., Bencze, L. C., Brem, J., Irimie, F. D., Rétey, J.: 2-Amino-3-(5-phenylfuran-2-yl) Propionic Acids and 5-Phenylfuran-2-yl Acrylic Acids are Novel Substrates of Phenylalanine Ammonia-Lyase, *Heterocycles*, **2010**, *82*, 1217-1228, (I.f. 0.999)

51. Bencze, L. C., Paizs, C., Tosa, M. I., Trif, M., Irimie, F. D.: CaL-B, a highly selective biocatalyst in the kinetic resolution of furilbenzthiazole-2-yl ethanols and acetates, *Tetrahedron-Asymmetr.* **2010**, *21*, 1999-2004, (I.f. 2.484)

52. Bencze, L. C., Paizs, C., Tosa, M. I., Irimie, F. D.: Substituent effects on the stereochemical outcome of the baker's yeast-mediated biotransformation of α-hydroxy- and α-acetoxymethyl-5-phenylfuran-2-yl-ethanones, *Tetrahedron-Asymmetr.* **2010**, *21*, 356-364, (I.f. 2.484)

53. Bencze, L. C., Paizs, C., Tosa, M. I., Vass, E., Irimie, F. D.: Synthesis of enantiomerically enriched (*R*)- and (*S*)-benzofuranyl- and benzo[*b*]thiophenyl-1,2-ethanediols via enantiopure cyanohydrins as intermediates, *Tetrahedron-Asymmetr.*, **2010**, *21*, 443-450, (I.f. 2.484)

54. Sandu, D., Lingvay, I., Lányi, Sz., Micu, D.D, Popescu, C.L., Brem, J., Bencze, L.C., Paizs, C. The effect of the electromagnetic field on the baker's yeast population dynamics, biocatalytic activity and selectivity, *Stud. Univ. Babes-Bol.*, **2009**, *4*, 195-203 (I.f. 0.086)

f) Cele mai importante publicaţii în extenso, apărute în lucrări ale conferinţelor internaţionale:

1. Moisă M. E., Amariei D., Tomoiagă R. B., Szarvas N., Toşa M. I., Paizs C., Bencze L. C. High-throughput fluorescence assay for phenylalanine ammonia lyase activity, *14th International Symposium on Biocatalysis and Biotransformations (BioTrans 2019)*, Groningen (Netherlands), **2019**

2. Tork S.-D., Nagy E. Z. A., Filip A., Lang P., Schofield C. J., Brem J., Paizs C., Bencze L. C. Active site mapping of phenylalanine ammonia-lyase from *Petroselinum crispum*, 14th International Symposium on Biocatalysis and Biotransformations (BioTrans 2019), Groningen (Netherlands), **2019**

3. Bencze, L.C., Filip, A, Nagy E.Zs.A., Nagy, B., Banoczi, G., Poppe, L., Paizs, C.: Rational design of phenylalanine ammonia lyase from *Petroselinum crispum* (*Pc*PAL) towards

sterically demanding phenylalanine analogues, *VII International Symposium on Advances in Synthetic and Medicinal Chemistry*, Vienna (Austria), **2017**

4. Filip, A, Banoczi, G., Poppe, L., Paizs, C., Irimie, F.D., Bencze, L.C.: Expanding the substrate range of phenylalanine ammonia lyase from *Petroselinum crispum* towards styryl-alanines, *Biotransformations*, Varsovia, **2016**

5. Nagy E.Z.A., Filip A., Bencze L.C., Paizs C., Irimie F.D. Expanding the substrate range of PcPAL towards biphenyl-alanines, *16th CEEPUS Symposium and Summer School on Bioanalysis*, Varsovia, **2016**

6. Filip, A, Tork, D.S., Bencze, L.C., Banoczi, G., Irimie, F.D., Poppe, L., Paizs, C.: MIO-enzyme toolbox: F137V mutant of phenylalanine ammonia-lyase from *Petroselinum crispum* with improved substrate tolerance and stereoselectivity, *Action COST CM1303 SysBiocat Training School*, Siena, **2016**

7. Bencze, L.C., Filip, A, Banoczi, G., Tosa, M.I., Irimie, F.D., Poppe, L., Paizs, C.: Styryl-alanines as novel substrates for phenylalanine ammonia lyases, *International Symposium on Synthesis and Catalysis (ISYSYCAT)*, Evora (Portugal), **2015**, poster – premiat în secţiunea Cataliză

8. Zerbe, K., Andolina, G., Bencze, L.C., Moehle, K., Robinson J.A.: Studying the outer membrane β-barrel protein LptD, the target of a new peptidomimetic antibiotic, *29th Annual Symposium of the Protein-Society*, Barcelona, **2015**

9. Bencze, L.C., Paizs, C., Tosa, M.I., Irimie, F.D.: Enantioselective preparation of novel benzofuran and benzotiophene based cyanohydrins and their acetates, *IVth International congress on biocatalysis*, Hamburg, **2008**

10. Bencze, L.C., Tosa, M.I., Paizs, C., Irimie, F.D.: Enantioselective synthesis of novel benzofurane- and benzotiophene based cyanohydrin-acetates, *35th International Congress of the Slovakian Chemical Engineering Society*, **2008**

11. Bencze, L.C.: „The synthesis of (2*E*,13*Z*)-octadecadienal, the active attractant in the sex pheromone of Webbing Clothes Moth", *3rd International Conference „Studenţi pentru studenţi"*, Cluj-Napoca, **2006**