



Europass Curriculum Vitae



Informații personale

Nume / Prenume	Habil. Dr. Csaba Paizs
Adresa	Universitatea "Babeș-Bolyai" Cluj, Facultatea de Chimie și Inginerie Chimică, Departamentul de Chimie și Inginerie Chimică în limba maghiară, str. Arany János 11, 400029 Cluj-Napoca (România)
Telefon	+40-264-593833
Fax	+40-264-590818
E-mail	paizs@chem.ubbcluj.ro
Cetățenia	Română
Naționalitatea	Maghiară
Data nașterii	01 Aprilie 1969
Sex	Masculin

Domeniul de ocupație

Profesor

Experiența în muncă

Perioada	01 Octombrie 1996 - 01 Martie 2007
Ocupația / poziție	Preparator, Asistent, Lector
Principalele activități și responsabilități	Educație și cercetare
Numele și adresa angajatorului	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)
Perioada	01 Martie 2007 - 26 Septembrie 2015
Ocupația / poziție	Conferențiar
Principalele activități și responsabilități	Educație și cercetare
Numele și adresa angajatorului	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)
Perioada	2013 →
Principalele activități și responsabilități	Conducător de doctorat (Școala doctorală de Chimie)
Numele și adresa angajatorului	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)
Perioada	27 Septembrie 2015 →
Ocupația / poziție	Profesor
Principalele activități și responsabilități	Educație și cercetare
Numele și adresa angajatorului	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)

Educație și Pregătire

Perioada	15 Martie 2013→
Titlul sau calificarea obținută	Abilitat în domeniul chimie
Perioada	01 Octombrie 1996 - 15 Iunie 2001
Titlul sau calificarea obținută	Doctor în chimie
Numele și tipul organizației	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)

Perioada	01 Octombrie 1994 - 15 Iunie 1995
Titlul sau calificarea obținută	Masterat în Cataliză și Biocataliză
Numele și tipul organizației	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)
Perioada	15 Septembrie 1989 - 14 Iunie 1994
Titlul sau calificarea obținută	Inginer Chimist
Numele și tipul organizației	Universitatea "Babeș-Bolyai", Mihail Kogălniceanu 1, Cluj-Napoca (România)

Aptitudini și competențe personale

Limba maternă **Maghiară, Română**

Limbi străine **Engleză**

Înțelegere				Vorbire				Scriere	
Ascultare		Citire		Participare la conversație		Discurs oral			
C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C1	Utilizator experimentat	C2	Utilizator experimentat

Domenii de cercetare

-studiul mecanismelor de acțiune enzimatică;
 -studiul stereoselectivității lipazelor la nivel molecular;
 -dezvoltarea biocatalizatorilor (modificarea enzimelor și imobilizarea biocatalizatorilor pe nanosuporturi);
 -aplicații ale sistemelor de microreactoare în biotransformări;
 -izolarea și purificarea proteinelor/enzimelor;
 -metode de analiză chirală;
 -sinteza organică stereoselectivă;
 -caracterizarea spectrală ai compușilor organici

Membru al asociațiilor profesionale

Membru în: Societatea de Chimie din România; Societatea Română de Cataliză și Biocataliză;
 Societatea Inginerilor Chimisti din România
 Membru CNATDCU Comisia de Chimie și Inginerie Chimică (2011-2012)
 Expert din partea României în acțiunea COST CM1303 (Systems Biocatalysis, SysBiocat)

Referent

Appl. Biochem. Biotechnol. – Adv. Synth. Catal. – Biocat. Biotechnol. J. Mol. Catal. B, Enz. – Molecules – Plos-ONE – Proc. Biochem. – Tetrahedron: Asymmetry, etc.
 Evaluator proiecte CNCSIS (România), OTKA (Ungaria) și NWO (Olanda). referent la teze de doctorat (România și Ungaria)

Specializări și calificări

1. Grant de cercetare la Universitatea din Karlsruhe (Prof. Dr. János Rétey) oferit de Comisia Europeană, HPRN- CT-2002-00195, 01.07.2003-31.10.2005
 2. Grant de cercetare la Universitatea din Turku (Prof. Dr. Liisa T. Kanerva) oferit de "Center for International Mobility (CIMO)", Finlanda, 01.03.2002-31.12.2002

Publicații

4 Cărți (1 autor principal) – 3 capitole de cărți – 65 Articole științifice (IF ~160) – citări totale/independente ~ 960/850 – h-index: 16 – 1 Brevet național – ~ 60 Conferințe

Premii

Premiul "Oláh György" al Academiei Maghiare (2007)

Cărți:

1. Moldovam, P., Toșa, M. I., Leț, D., Majdik, C., **Paizs, Cs.**, Irimie, F. D. *Aplicații pentru laboratorul de biochimie*, Napoca Star, Cluj-Napoca, 2006.
2. Toșa, M. I., **Paizs, Cs.**, Irimie, F. D. *Bioprocese pentru obținerea medicamentelor și intermediarilor*, Napoca Star, Cluj-Napoca, 2007.
3. Irimie, F. D., **Paizs, Cs.**, Toșa, M. I. *Biotransformări în sinteza organică*, Napoca Star, Cluj-Napoca, 2006.
4. **Paizs, Cs.**, Katona, A., Brem, J., Bencze, L. C. *Insights in Pure and Applied Biocatalysis*, Napoca Star, Cluj-Napoca, 2015.

Capitole de cărți:

1. Poppe, L., **Paizs, Cs.**, Kovács, K., Irimie, F. D., Vértessy, B. "Preparation of unnatural amino acids with ammonia-lyases and 2,3-aminomutases", in *Methods in Molecular Biology*, Vol. 794 "Unnatural amino acids", Part 1; New York: Springer Science+Business Media, **2012**, pp 3-19.
2. Irimie, F. D., **Paizs, Cs.**, Toșa, M. I. "Polymeric Materials Obtained through Biocatalysis, in *Polymeric Biomaterials: Structure and Function*", Volume 1, Eds: Dumitriu, S., Popa, V. CRC Press, USA, **2013**, pp. 617-657.
3. Irimie, F. D., **Paizs, C.**, Toșa, M. I., Bencze, L. C. "Biodiesel, a Green Fuel Obtained Through Enzymatic Catalysis", in *Biomass as Renewable Raw Material to Obtain Bioproducts of High-tech Value* Eds: Popa, V., Volf, I. Elsevier, Netherlands, 2018, pp. 191-234.

Brevet

1. Barabás, R., **Paizs, Cs.**, Pop, A. Fungicidal composition based on salts of the *N,N*-ethylene-bis-thiocarbamic acid and process for preparing the same (2010) **Patent Number: RO122830-B1**

Lista de publicații

1. Toșa, C., Miclăuș, V., Toșa, M. I., Pop, Al., **Paizs, Cs.** (1997): Oxidation of methanol to formaldehyde on Mo-Fe oxide as catalyst. I Mathematical model of the mass balance. *Revista de chimie (Bucharest)* **48**, 284-290. (I.f. 0.125)
2. Pop, Al., **Paizs, Cs.**, Toșa, C., Toșa, M. I., Miclăuș, V. (1997): Oxidation of methanol to formaldehyde on Mo-Fe oxide as catalyst. II Mathematical modeling and process analysis. *Revista de chimie (Bucharest)* **48**, 616-620. (I.f. 0.125)
3. Irimie, F. D., **Paizs, Cs.**, Toșa, M. I., Afloroaiei, C., Miclăuș, V. (1997): Baker's yeast mediated reductions of some nitrodibenzofurans. *Heterocyclic Communications* **3**, 549-553. (I.f.0.401)
4. Damian, G., Cozar, O., Miclăuș, V., **Paizs, Cs.**, Znamirovski, V., Chiș, V., David, L. (1998): ESR Study of the dynamics of adsorbed nitroxide radicals on porous surfaces in the dehydration process. *Colloids and Surfaces A* **137**, 1-6. (I.f. 1.146)
5. Irimie, F. D., Afloroaiei, C., Toșa, M. I., **Paizs, Cs.** (1999): Bioreduction with baker's yeast of π -deficient heterocyclic aldehydes. *Heterocyclic Communication* **5**, 253-256. (I.f.0.401)
6. Grosu, I., Balog, M., **Paizs, Cs.**, Ple, G., Irimie, F. D., Mager, S., Poda, R. (2000): Synthesis and stereochemistry of some new 1,3-dioxane derivatives obtained from 5-aryl-2-furaldehydes. *Revue Roumaine de Chimie* **45**, 877-882. (I.f. 0.259)

7. Toşa, M. I., **Paizs, Cs.**, Majdik, C., Poppe, L., Kolonits, P., Silberg I. A., Novák, L., Irimie, F. D. (2001): Selective oxidation methods for preparation of N-alkylphenothiazine sulfoxides and sulfones. *Heterocyclic Communications* 7, 277-282. (I.f. 0.352)
8. Toşa, M. I., **Paizs, Cs.**, Majdik, C., Moldovan, P., Novák, L., Kolonits, P., Szabó, É., Poppe, L., Irimie, F. D. (2002): Baker's yeast mediated preparation of (10-alkyl-10H-phenothiazin-3-yl)methanols. *Journal of Molecular Catalysis B, Enzymatic* 17, 241-248. (I.f. 1.408)
9. Toşa, M. I., **Paizs, Cs.**, Majdik, C., Novák, L., Kolonits, P., Irimie, F., Poppe, L. (2002): Optically active 3-substituted-10-alkyl-10H-phenothiazine-5-oxides by enantiomer selective biotransformations. *Tetrahedron: Asymmetry* 13, 211-221. (I.f. 2.265)
10. Cimpoi, C., Hodişan, T., Toşa, M. I., **Paizs, Cs.**, Majdik, C., Irimie, F. D. (2002): Separation of N-alkyl-phenothiazin- sulfones by HPTLC using an optimum mobile phase. *Journal of Pharmaceutical and Biomedical Analysis* 28, 385-359. (I.f. 1.177)
11. Iliescu, T., Irimie, F. D., Bolboaca, M., **Paizs, Cs.**, Kiefer, W. (2002): Vibrational spectroscopic investigations of 5-(4-fluoro-phenyl)-furan-2-carbaldehyde. *Vibrational Spectroscopy* 29, 235-239. (I.f. 1.167)
12. Iliescu, T., Irimie, F. D., Bolboaca, M., **Paizs, Cs.**, Kiefer, W. (2002): Surface enhanced Raman spectroscopy of 5-(4-fluoro-phenyl)-furan-2-carbaldehyde adsorbed on silver colloid. *Vibrational Spectroscopy* 29, 251-255. (I.f. 1.167)
13. Irimie, F. D., **Paizs, Cs.**, Toşa, M. I., Majdik, C., Mişca, R., Silaghi-Dumitrescu, R. (2002): Bioorganic synthesis of some (5-(benzothiazole-2-yl)furan-2-yl)methanols in cell catalysis using *Saccharomyces cerevisiae*. *Heterocyclic Communications* 8, 489-492. (I.f. 0.352)
14. **Paizs, Cs.**, Toşa, M. I., Majdik, C., Bódai, V., Novák, L., Irimie, F. D., Poppe, L. (2002): Chemo-enzymatic preparation of hydroxymethyl ketones. *Journal of the Chemical Society, Perkin Transactions 1* 21, 2000-2002. (I.f. 2.208)
15. **Paizs, Cs.**, Toşa, M. I., Majdik, C., Tähtinen, P., Irimie, F. D., Kanerva, L. T. (2003): Preparation of novel furylbenzothiazol-based cyanohydrin esters: *Candida Antarctica* lipase A – catalysed kinetic and dynamic resolution. *Tetrahedron: Asymmetry* 14, 619-627. (I.f. 2.178)
16. **Paizs, Cs.**, Toşa, M. I., Majdik, C., Moldovan, P., Novák, L., Kolonits, P., Marcovici, A., Irimie, F. D., Poppe, L. (2003): Optically active 1-(benzofuran-2-yl)ethanols and ethane-1,2-diols by enantiotopic selective bioreductions. *Tetrahedron: Asymmetry* 14, 1495-1501. (I.f. 2.178)
17. Bolboaca, M., Iliescu, T., **Paizs, Cs.**, Irimie, F. D., Kiefer, W. (2003): Raman, Infrared, and Surface-Enhanced Raman Spectroscopy in Combination with *ab initio* and density functional theory calculations on 10-isopropyl-10H-phenothiazine-5-oxide. *Journal of Physical Chemistry A* 107, 1811-1818. (I.f. 2.792)
18. **Paizs, Cs.**, Tähtinen, P., Lundell, K., Poppe, L., Irimie, F. D., Kanerva, L. T. (2003): Preparation of novel phenylfuran-based cyanohydrin esters: lipase-catalysed kinetic and dynamic resolution. *Tetrahedron: Asymmetry* 14, 1895-1904. (I.f. 2.178)

19. **Paizs, Cs.**, Toşa, M. I., Bóдай, V., Szakács, Gy., Kmeecz, I., Simándi, B., Majdik, C., Novák, L., Irimie F. D., Poppe L. (2003): Kinetic resolution of 1-(benzofuran-2-yl)ethanols by lipase-catalyzed enantiomer selective reactions. *Tetrahedron: Asymmetry* 14, 1943-1949. (I.f. 2.178)
20. **Paizs, Cs.**, Tähtinen, P., Toşa, M. I., Majdik, C., Irimie, F. D., Kanerva, L. T. (2004) Biocatalytic enantioselective preparation of phenothiazine-based cyanohydrin acetates: kinetic and dynamic kinetic resolution. *Tetrahedron* 60, 10533-10540. (I.f. 2.643)
21. Iliescu, T., Maniu, D., Chiş, V., Irimie, F. D., **Paizs, Cs.**, Toşa, M. (2005) NIR surface enhanced Raman spectroscopy and bands assignment by DFT calculations of non-natural α -amino acids. *Chemical Physics* 310, 189-199. (I.f. 2.316)
22. **Paizs, Cs.**, Katona, A., Rétey, J. (2006) The Interaction of Heteroaryl-Acrylates and Alanines with Phenylalanine Ammonia-Lyase from Parsley. *Chemistry, a European Journal* 12, 2739-2744. (I.f. 5.015)
23. **Paizs, Cs.**, Katona, A., Rétey, J. (2006) Chemoenzymatic One-Pot Synthesis of Enantio-Pure L-Arylalanines From Arylaldehydes. *European Journal of Organic Chemistry* 1113-1116. (I.f. 2.769)
24. Katona, A., Toşa, M. I., **Paizs, Cs.**, Rétey, J. (2006) Inhibition of Histidine Ammonia-Lyase by Heteroaryl-alanines and Acrylates. *Chemistry and Biodiversity* 3, 502-508. (I.f. 1.616)
25. **Paizs, Cs.**, Bartlewski-Hof, U., Rétey, J. (2007) Investigation of the Mechanism of Action of Pyrogallol-Phloroglucinol Transhydroxylase by Using Putative Intermediates. *Chemistry, a European Journal* 13, 2805-2811. (I.f. 5.330)
26. Podea, P., Toşa, M. I., **Paizs, Cs.**, Irimie, F. D. (2008) Chemoenzymatic preparation of enantiopure L-benzofuranyl- and L-benzo[b]thiophenyl alanines. *Tetrahedron: Asymmetry* 19, 500-511. (I.f. 2.796)
27. Toşa, M. I., Pilbák, S., Moldovan, P., **Paizs, Cs.**, Szatzker, G., Szakács, Gy., Novák, L., Irimie, F. D., Poppe, L. (2008) Lipase-catalyzed kinetic resolution of racemic 1-heteroarylethanols-experimental and QM/MM study. *Tetrahedron: Asymmetry* 19, 1844-1852. (I.f. 2.796)
28. Podea, P., **Paizs, Cs.**, Toşa, M. I., Irimie, F. D. (2008) Baker's yeast-mediated synthesis of (*R*)- and (*S*)-heteroaryl-ethane-1,2-diols. *Tetrahedron: Asymmetry* 19, 1959-1964. (I.f. 2.796).
29. Toşa, M. I., Podea, P., **Paizs, Cs.**, Irimie, F. D. (2008) Chemoenzymatic synthesis of (*R*)- and (*S*)-1-heteroarylethanols. *Tetrahedron: Asymmetry* 19, 2068-2071. (I.f. 2.796).
30. **Paizs, Cs.**, Diemer, T., Rétey, J. (2008) The putative coenzyme B₁₂-dependent methylmalonyl-CoA mutase from potatoes is a phosphatase. *Bioorganic Chemistry* 36, 261-264. (I.f. 1.985).
31. Brem, J. **Paizs, Cs.**, Toşa, M. I., Vass, E., Irimie, F. D. (2009) Enzyme-catalysed synthesis of (*R*)- and (*S*)-3-heteroaryl-3-hydroxy-propanoic acids and their derivatives. *Tetrahedron: Asymmetry* 20, 489-496. (I.f. 2.625)
32. Irimie, F. D., **Paizs, Cs.**, Toşa, M. I., Podea, P. (2009) New ways for old structures. *Studia Universitatis Babeş-Bolyai, Chemia* 54, 7-16. (I.f. 0.086)

33. Sandu, D., Lingvay, I., Lányi, Sz., Micu, D. D., Popescu, C. L., Brem, J. Bencze, L. Cs., **Paizs, Cs.** (2009) The effect of electromagnetic fields on baker's yeast population dynamics, biocatalytic activity and selectivity. *Studia Universitatis Babeş-Bolyai, Chemia* 54, 195-201. (I.f. 0.086)
34. Bencze L. Cs., **Paizs, Cs.**, Toşa, M. I., Irimie, F. D. (2010) 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: Asymmetry* 21, 356-364. (I.f. 2.484)
35. Brem, J. Toşa, M. I., **Paizs, Cs.**, Vass, E., Irimie, F. D. (2010) Enzyme-catalyzed synthesis of (R)- and (S)-3-hydroxy-3-(10-alkyl-10H-phenothiazin-3-yl)propanoic acids. *Tetrahedron: Asymmetry* 21, 365-373. (I.f. 2.484)
36. Bencze L. Cs., **Paizs, Cs.**, Toşa, M. I., Vass, E., Irimie, F. D. (2010) Synthesis of enantiomerically enriched (R)- and (S)-benzofuranyl- and benzo[b]thiophenyl-1,2-ethanediols *via* enantiopure cyanohydrins as intermediates. *Tetrahedron: Asymmetry* 21, 443-450. (I.f. 2.484)
37. Brem, J., Toşa, M. I., **Paizs, Cs.**, Munceanu, A., Matković-Čalogović, D., Irimie, F. D. (2010) Lipase-catalyzed kinetic resolution of racemic 1-(10-alkyl-10H-phenothiazin-3-yl)ethanols and their butanoates. *Tetrahedron: Asymmetry* 21, 1993-1998. (I.f. 2.484)
38. Bencze L. Cs., **Paizs, Cs.**, Toşa, M. I., Trif, M., Irimie, F. D. (2010) CaL-B a highly selective biocatalyst for the kinetic resolution of furylbenzthiazole-2-yl ethanols and acetates. *Tetrahedron: Asymmetry* 21, 1999-2004. (I.f. 2.484)
39. **Paizs, Cs.**, Toşa, M. I., Bencze L. Cs., Brem, J., Irimie, F. D., Rétey, J. (2011) 2-Amino-3-(5-phenylfuran-2-yl) propanoic acids and 5-phenylfuran-2-yl acrylic acids are novel substrates of phenylalanine-ammonia-lyase. *Heterocycles* 82, 1217-1228. (I.f. 0.999)
40. Bencze, L. Cs., **Paizs, Cs.**, Toşa, M. I., Irimie, F. D. Rétey, J. (2011) Chemoenzymatic One-Pot Synthesis of both (R)- and (S)-aryl-1,2-ethanediols. *ChemCatChem* 3, 343-346. (I.f. 5.207)
41. Brem, J., Liljebld, A., **Paizs, Cs.**, Toşa, M. I., Irimie, F. D., Kanerva, L. T. (2011) Lipases A and B from *Candida antarctica* in the enantioselective acylation of ethyl 3-heteroaryl-3-hydroxypropanoates: aspects on the preparation and enantiopreference. *Tetrahedron: Asymmetry* 22, 315-322. (I.f. 2.652)
42. Bencze, L. Cs., **Paizs, Cs.**, Toşa, M. I., Irimie, F. D. (2011) Sequential use of regio- and stereoselective lipases for the efficient kinetic resolution of racemic 1-(5-phenylfuran-2-yl)ethane-1,2-diols. *Tetrahedron: Asymmetry* 22, 675-683. (I.f. 2.652)
43. Brem, J., Pilbák, S., **Paizs, Cs.**, Bánoczi, G., Irimie, F. D., Toşa, M. I., Poppe, L. (2011) Lipase-catalyzed kinetic resolutions of racemic 1-(10-ethyl-10H-phenothiazin-1,2, and 4-yl)ethanols and their acetates. *Tetrahedron: Asymmetry* 22, 916-923. (I.f. 2.652)
44. Gog, A., Chintoanu, M., Roman, M., Luca, E., **Paizs Cs.**, Irimie, F. D. (2011) Biodiesel Production from Sunflower Oil with *Candida antarctica* Lipase B. *Studia Universitatis Babeş-Bolyai, Chemia* 56, 71-79. (I.f. 0.129)
45. Pop, L. A., Czompa, A., **Paizs, Cs.**, Toşa, M. I., Vass, E., Mátyus, P., Irimie, F. D. (2011) Lipase-Catalyzed Synthesis of Both Enantiomers of 3-Chloro-1-arylpropan-1-ols *Synthesis* 2011, 2921-2928. (I.f. 2.466)

46. Brem, J., Naghi, M., Toşa, M. I., Boros, Z., Poppe, L., Irimie, F. D., **Paizs, Cs.*** (2011) Lipase mediated sequential resolution of aromatic β -hydroxy esters using fatty acid derivatives. *Tetrahedron: Asymmetry* 22, 1672-1679. (I.f. 2.652)
47. Brem, J., Turcu, M.C., **Paizs, Cs.**, Lundell, K., Toşa, M.I., Irimie, F.D., Kanerva, L.T. (2012) Immobilization to improve the properties of *Pseudomonas fluorescens* lipase for the kinetic resolution of 3-aryl-3-hydroxy esters. *Process Biochemistry* 47, 119-126. (I.f. 2.627)
48. Gog, A., Roman, M., Toşa, M.I., **Paizs Cs.**, Irimie, F. D. (2012) Biodiesel production using enzymatic transesterification - Current state and perspectives. *Renewable Energy* 39, 10-16. (I.f. 2.978)
49. Naghi, M., Bencze, L. Cs., Brem, J., **Paizs Cs.**, Irimie, F. D., Toşa, M.I. (2012) Sequential enzymatic procedure for the preparation of enantiomerically pure 2-heteroaryl-2-hydroxyacetic acids. *Tetrahedron: Asymmetry* 23, 181-187. (I.f. 2.652)
50. Brem, J., Bencze, L. Cs., Liljeblad, A., Turcu, M.C., **Paizs Cs.**, Irimie, F. D., Kanerva, L.T. (2012) Chemoenzymatic Preparation of 1-Heteroarylethanamines of Low Solubility. *European Journal of Organic Chemistry* 17, 3288–3294. (I.f. 3.329)
51. Toşa, M.I., Brem, J., Mantu, A., Irimie, F. D., **Paizs Cs.***, Rétey, J. (2013) The Interaction of Nitrophenylalanines with Wild Type and Mutant 4-Methylideneimidazole-5-one-less Phenylalanine Ammonia Lyase. *ChemCatChem* 5, 779-783. (I.f. 5.044)
52. Hara, P., Turcu, M., Sundell, R., Toşa, M. I., **Paizs, Cs.**, Irimie, F. D., Kanerva, L. T. (2013) Lipase-catalyzed asymmetric acylation in the chemoenzymatic synthesis of furan-based alcohols. *Tetrahedron: Asymmetry* 24, 142-150. (I.f. 2.165)
53. Nagy, B., Dima, N., **Paizs, Cs.**, Brem, J., Irimie, F. D., Toşa, M. I. (2014) New chemo-enzymatic approaches for the synthesis of (R)- and (S)-bufuralol. *Tetrahedron: Asymmetry* 25, 1316-1322. (I.f. 2.165)
54. Weiser, D., Varga, A., Kovács, K., Nagy, F., Szilágyi, A., Vértessy, B., **Paizs, Cs.**, Poppe, L. (2014) Bisepoxide Cross-Linked Enzyme Aggregates-New Immobilized Biocatalysts for Selective Biotransformations. *ChemCatChem* 6, 1463-1469. (I.f. 4.556)
55. Kovács, K., Bánoczi, G., Varga, A., Szabó, I., Holzinger, A., Hornyánszki, G., Zagyva, I., **Paizs, Cs.***, Vértessy, B., Poppe, L. (2014) Expression and Properties of the Highly Alkalophilic Phenylalanine Ammonia-Lyase of Thermophilic *Rubrobacter xylanophilus*. *Plos One* 9, e85943. (I.f. 3.234)
56. Boros, Z., Abaháziová, E., Weiser, D., Kovács, P., **Paizs, Cs.***, Poppe, L. (2014) Surface modification of silica gels for selective adsorption of bacterial lipases. *Studia Universitatis Babeş-Bolyai, Chemia* 59(4), 33-38. (I.f. 0.136)
57. Bartha-Vári, J., Toşa, M. I., Irimie, F. D., Weiser, D., Boros, Z., **Paizs, Cs.***, Poppe, L. (2015) Immobilization of phenylalanine ammonia-lyase on single-walled carbon nanotubes for stereoselective biotransformations in batch and in continuous-flow modes. *ChemCatChem* 7, 1122-1128. (I.f. 4.556)
58. Leonte, D., Bencze, L. C., **Paizs, Cs.**, Irimie, F. D., Zaharia, V. (2015) Heterocycles 38. Biocatalytic synthesis of new heterocyclic mannich bases and derivatives. *Molecules*, 20, 12300-12313. (I.f. 2.416)

59. Bencze, L.C., Komjáti, B., Pop, L. A., **Paizs, Cs.**, Irimie, F. D., Nagy, J., Poppe, L., Toşa, M. I. (2015) Synthesis of enantiopure L-(5-phenylfuran-2-yl)alanines by a sequential multienzyme process. *Tetrahedron: Asymmetry* **26**, 1095-1101. (I.f. 2.115)
60. Weiser, D., Bencze, L. C., Bánóczy, G., Ender, F., Kiss, R., Kókai, E., Szilágyi, A., Vértessy, B. G., Farkas, Ö., **Paizs Cs.***, Poppe, L. (2015) Phenylalanine ammonia-lyase catalyzed deamination of an acyclic amino acid - Enzyme mechanistic studies aided by a novel microreactor filled with magnetic nanoparticles. *ChemBioChem*, **16**, 2283-2288. (I.f. 3.088)
61. Bencze, L. C., Bartha-Vári, J., Katona, G., Toşa, M. I., **Paizs, Cs.**, Irimie, F. D. (2016) Nanobioconjugates of *Candida antarctica* lipase B and single-walled carbon nanotubes in biodiesel production. *Bioresource Technology*, **200**, 853-860. (I.f. 4.494)
62. Leonte, D., Bencze, L. C., **Paizs, Cs.**, Toşa, M. I., Zaharia, V., Irimie, F. D. (2016) Heterocycles 36. 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*, **21**, 25. (I.f. 2.416)
63. Ender, F., Weiser, D., Nagy, B., Bencze, L. C., **Paizs, C.**, Pálovics, P., Poppe, L. (2016) Microfluidic Multiple Cell Chip Reactor Filled with Enzyme-coated Magnetic Nanoparticles — An Efficient and Flexible Novel Tool for Enzyme Catalyzed Biotransformations. *Journal of Flow Chemistry*, **6**, 43-52. (I.f. 1.942)
64. Varga, A., Bánóczy, G., Nagy, B., Bencze, L. C., Toşa, M. I., Gellért, Á., Irimie, F. D., Rétey, J., Poppe, L., **Paizs, C.*** (2016) Influence of the aromatic moiety in α - and β -arylalanines on their biotransformation with phenylalanine 2,3-aminomutase from *Pantoea agglomerans*. *RSC: Advances*, **6**, 56412-56420. (I.f. 3.289)
65. Czíkó, M., Bogya, E S., **Paizs, C.**, Katona, G., Konya, Z., Kukovecz, Á., Barabás, R. (2016) Albumin adsorption study onto hydroxyapatite-multiwall carbon nanotube based composites. *Materials Chemistry and Physics*, **180**, 314-325. (I.f. 2.101)
66. Varga, A., Filip, A., Bencze, L. C., Sátorhelyi, P., Bell, E., Vértessy, B., Poppe, L., **Paizs, C.*** (2016) Expression and Purification of Recombinant Phenylalanine 2,3-Aminomutase from *Pantoea agglomerans*. *Studia Universitatis Babeş-Bolyai, Chemia*, **51**, 2, 7-19. (I.f. 0. 244)
67. Dima, N., Filip, A., Bencze, L. C., Oláh, M., Sátorhelyi, P., Vértessy, B., Poppe, L., **Paizs, C.*** (2016) Expression and Purification of Recombinant Phenylalanine Ammonia Lyase from *Petroselinum crispum*. *Studia Universitatis Babeş-Bolyai, Chemia*, **51**, 2, 21-34. (I.f. 0. 244)
68. Bódai, V., Nagy-Győr, L., Örkényi, R., Molnár, Z., Kohári, S., Erdélyi, B., Nagymáté, Z., Romsics, C., **Paizs, C.**, Poppe, L., Homayánszky, G. (2016) *Wickerhamomyces subpelliculosus* as whole-cell biocatalyst for stereoselective bioreduction of ketones. *Journal of Molecular Catalysis B: Enzymatic*, **136**, 206-214. (I. f. 2.189)
69. Bata, Z., Qian, R., Roller, A., Horak, J., Bencze, L. C., **Paizs, C.**, Hammerschmidt, F., Vértessy, B. G., Poppe, L. (2017) A Methylidene Group in the Phosphonic Acid Analogue of Phenylalanine Reverses the Enantioselectivity of Binding to Phenylalanine Ammonia-Lyases. *Advanced Synthesis and Catalysis*, **359**, 2109-2120. (I. f. 5.646)
70. Nagy, B., Galla, Z., Bencze, L. C., Toşa, M. I., **Paizs, C.**, Forró, E., Fülöp, F. (2017) Covalently Immobilized Lipases are Efficient Stereoselective

Catalysts for the Kinetic Resolution of *rac*-(5-Phenylfuran-2-yl)- β -alanine Ethyl Ester Hydrochlorides. *European Journal of Organic Chemistry*, 20, 2878-2882. (I. f. 2.834)

71. Bartha-Vári, J. H., Bencze, L. C., Bell, E., Poppe, L., Katona, G., Irimie, F. D., **Paizs, C.**, Toşa, M.I. (2017) Aminated single-walled carbon nanotubes as carrier for covalent immobilization of phenylalanine ammonia-lyase. *Periodica Polytechnica Chemical Engineering*, 61, 59-66. (I. f. 0.557)
72. Bencze, L. C., Filip, A., Bánóczy, G., Toşa, M. I., Irimie, F. D., Gellért, Á., Poppe, L., **Paizs, C.*** (2017) Expanding the substrate scope of phenylalanine ammonia-lyase from *Petroselinum crispum* towards styrylalanines. *Organic and Biomolecular Chemistry*, 17, 3717-3727. (I. f. 3.564)
73. Balázi, J., **Paizs, C.**, Irimie, F. D., Toşa, M. I., Bencze, L. C., Tóth, R. (2017) Validated LC-MS/MS Method for the Concomitant Determination of Amoxicillin and Clavulanic Acid from Human Plasma. *Studia Universitatis Babeş-Bolyai, Chemia*, 52, 2, 167-178. (I. f. 0.244)
74. Moişă, M. E., Spelmezan, C. G., Paul, C., Bartha-Vári, H. J., Bencze, L. C., Irimie, F. D., **Paizs, C.**, Péter, F., Toşa, M. I. (2017) Tailored sol-gel immobilized lipase prepartes for the enzymatic kinetic resolution of heteroaromatic alcohols in batch and continuous flow systems. *RSC: Advances*, 7, 59277-59287. (I. f. 3.108)
75. Csuka, P., Juhász, V., Kohári, S., Filip, A., Varga, A., Sátorhelyi, P., Bencze, L. C., Barton, H., **Paizs C.***, Poppe, L. (2018) *Pseudomonas fluorescens* Strain R124 Encodes Three Different MIO Enzymes. *ChemBioChem*, DOI: 10.1002/cbic.201700530 (I.f. 2.850)
76. Abaházi, E., Sátorhelyi, P., Erdélyi, B., Vértessy, B. G., Land, H., **Paizs, C.**, Berglund, P., Poppe, L. (2018) Covalently immobilized Trp60Cys mutant of ω -transaminase from *Chromobacterium violaceum* for kinetic resolution of racemic amines in batch and continuous-flow modes. *Biochemical Engineering Journal*, doi.org/10.1016/j.bej.2018.01.022 (I.f. 2.892)
77. Filip, A., Nagy, E. Z. A., Tork, S. D., Bánóczy, G., Toşa, M. I., Irimie, F. D., Poppe, L., **Paizs, C.***, Bencze, L. C. (2018) Tailored mutants of phenylalanine ammonia-lyase from *Petroselinum crispum* for the synthesis of bulky L- and D-arylalanines. *ChemCatChem*, DOI: 10.1002/cctc.201800258 (I.f. 4.803)