

MONICA IOANA TOŞA

ACTIVITATE DE CERCETARE A2.

ACTIVITATE A2.1. ARTICOLE ÎN REVISTE COTATE ISI THOMSON REUTERS

1. Toşa, C., Miclăuş, V., Toşa, 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., Toşa, C., **Toşa, M. I.**, Miclăuş, 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., **Toşa, M. I.**, Afloroaiei, C., Miclăuş, V. (1997): Baker's yeast mediated reductions of some nitrodibenzofurans. Heterocyclic Communications 3, 549-553. (I.f. 0.4)
4. Irimie, F. D., Afloroaiei, C., **Toşa, M. I.**, Paizs, Cs. (1999): Bioreduction with baker's yeast of π-deficient heterocyclic aldehydes. Heterocyclic Communication 5, 253-256. (I.f. 0.401)
5. **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)
6. **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)
7. **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)
8. 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)
9. 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)
10. Paizs, Cs., **Toşa, M. I.**, Majdik, C., Bodai, 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)
11. Paizs, Cs., **Toşa, M. I.**, Majdik, C., Tähtinen, P., Irimie, F. D., Kanerva, L. T. (2003): *Candida antarctica* lipase A in the dynamic resolution of novel furylbenzothiazol-based cyanohydrin acetates. Tetrahedron: Asymmetry 14, 619-627. (I.f. 2.178)
12. 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)
13. Paizs, Cs., **Toşa, M. I.**, Bódai, V., Szakács, Gy., Kmecz, 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)
14. 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)
15. 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 β-amino acids. Chemical Physics 310, 189-199. (I.f. 2.316)
16. 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)

17. Endredi, H., Billes, F., **Toşa, M. I.**, Majdik, C., Irimie, F. D. (2006) Experimental and quantum chemical study on the vibrational spectroscopy of N-methylphenothiazines: Part 1 Spectrochim. acta Part A-Molecular and biomolecular spectroscopy 63(2), 349-360 (I.f. 1.27)
18. 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)
19. **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)
20. 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).
21. **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).
22. 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)
23. 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)
24. Billes, F., Podea P.V., Mohammed-Ziegler, I., **Toşa, M.**, Mikosch, H., Irimie, D.-F. (2009) Formyl-and acetylindols: Vibrational spectroscopy of an expectably pharmacologically active compound family Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy 74(5), 1031-104
25. Marcovici, A.M., **Toşa, M.-I.**, Vlase, O., Leucuţa, S.E., Irimie, F.D. (2009) Quantification of ibuprofen and pseudoephedrine in human plasma by LC/MS/MS for pharmacokinetic studies. Studia Universitatis Babes-Bolyai Chemia, SPEC.ISSUE 2, 171-179 (If 00.086)
26. 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)
27. 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)
28. 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)
29. 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)
30. 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)
31. **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)
32. Stanca, M.H., Nagy, A., **Toşa, M.**, Vlad, L. (2011) Hepatoprotective effects of orally administered melatonin and *tinospora cordifolia* in experimental jaundice Chirurgia (Bucharest, Romania : 1990) 106, 205-210 (I.f. 0.375)
33. 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)
34. Brem, J., Liljeblad, 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 enantio preference. *Tetrahedron: Asymmetry* 22, 315-322. (I.f. 2.652)
35. 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)
36. 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)
37. 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)
38. 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)
39. 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)
40. 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)
41. 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)
42. Pop, L., Lassalas, P., Bencze, L. C., Tosa, M. I., Nagy, B., Irimie, F. D., Hoarau, C.(2012) Chemoenzymatic synthesis of highly enantiomerically enriched secondary alcohols with a thiazolic core, *Tetrahedron: Asymmetry* 23, 474-481 (I.f. 2.652)
43. Chiş, L. M., Hriscu, M., Chirilă, F., Lupan, I., **Toşa, M.**, Irimie, F. D. (2012) Recombinant *Anoxybacillus flavithermus* T1 esterase/lipase: optimization of expression and recovery, *Environm. Eng. Manag. J.*, 1915-1922 (I.f. 1.117)
44. Chiş, L. M., Hriscu, M., Bica, A., **Toşa, M.**, Nagy, G., Vertessy, B., Irimie, F. D. (2013) Molecular cloning and characterization of a thermostable esterase/lipase produced by a novel *Anoxybacillus flavithermus* strain, *J. Gen. Appl. Microbiol.* 59(2), 119-134 (I.f. 0.598)
45. Hriscu, M., Chiş, L. M., **Toşa, M.**, Irimie, F. D. (2013) pH-Proiling of thermoactive lipases and esterases: Caveats and further notes, *Eur. J. of Lipid Sci. Technol.* 111(5), 571-575 (I.f. 2.033)
46. Hapău, D., Brem, J., Moisă, M., **Toşa, M. I.**, Irimie, F. D., Zaharia, V. (2013) Heterocycles 32. Efficient kinetic resolution of 1-(2-arylthiazol-4-yl)ethanols and their acetates using lipase B from *Candida antarctica*, *J. Mol. Catal. B: Enzymatic*, 88-94 (I.f. 2.745)
47. **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)
48. Hara, P., Turcu, M., Sundell, R., **Toşa, M. I.**, Paizs, C., Irimie, F. D., Kanerva, L. T. (2013) Lipase-catalyzed asymmetric acylation in the chemoenzymatic synthesis of furan-based alcohols *Tetrahedron: Asymmetry* 24(2-3), 142-150 (I.f. 2.165)
49. Radu, A., Moisa, M. E., **Toşa, M. I.**, Dima, N., Zaharia, V., Irimie, F. D., (2014) *Candida antarctica* lipases acting as versatile catalysts for the synthesis of enantiopure (*R*)- and (*S*)-1-(2-phenylthiazol-4-yl)ethanamines, *J. Mol. Catal. B: Enzymatic*, 107, 114-119 (I.f. 2.745)
50. Nagy, B., Dima, N., Paizs, C., 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)
51. Judith H. Bartha-Vári, **Monica I. Toşa**, Florin-Dan Irimie, Diána Weiser, Zoltán Boros, Beáta G.Vértessy, Csaba Paizs, László Poppe: (2015) Immobilization of phenylalanine ammonia-

- lyase on single-walled carbon nanotubes for stereoselective biotransformations in batch and in continuous-flow modes, accepted, ChemCatChem 7, 1122-1128 (I.f. 5.044)
52. Dulf, F.; Vodnar, D.; Dulf, E.H.; **Tosa, M.** (2015): Total Phenolic Contents, Antioxidant Activities and Lipid Fractions from Berry Pomaces Obtained by Solid-State Fermentation of two Sambucus Species with *Aspergillus Niger*, J. of Agric. and Food Chem. 63, 3489-3500 (I.f. 3.107)
53. **Tosa, M.I.**, Komjáti, B.; Madarász, J.; Kolonits, P.; Poppe, L.; Nagy, J.; (2015): Stable hydrate of a β -lactamcarbaldehyde, Studia Univ. Babes-Bolyai, Chem. accepted

Declar pe propria răspundere că datele corespund cu realitatea.

Cluj-Napoca,
10 aprilie 2015

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Calcule activitate A2.1

Tabel centralizator pe reviste ISI, nr de articole și factori de impact.

Factorii de impact conform bazei de date Thomson Reuters, pentru anul în care a fost publicat articolul.

Revista	An	Poz. lista	Nr. articole	Factor Impact/an	Total
<i>Revista de chimie (Bucharest)</i>	1997	1,2	2	0.125	0.25
<i>Heterocyclic Communications</i>	1997-9	3,4	2	0.401	0.802
	2001-2	5,9	2	0.352	0.704
<i>Journal of Molecular Catalysis B, Enzymatic</i>	2002	6	1	1.408	1.408
	2013-14	46,49	2	2.745	5.49
<i>Journal of Pharmaceutical and Biomedical Analysis</i>	2002	8	1	1.177	1.177
<i>Journal of the Chemical Society, Perkin Transactions 1</i>	2002	10	1	2.208	2.208
<i>Chemical Physics</i>	2005	15	1	2.316	2.316
<i>Chemistry and Biodiversity</i>	2006	16	1	1.616	1.616
<i>Spectrochim. Acta Part A-Molecular and biomolecular spectroscopy</i>	2006	17	1	1.27	1.27
	2009	24	1	1.566	1.566
<i>Studia Universitatis Babes-Bolyai Chemia</i>	2009	23,25	2	0.086	0.172
	2014-15	53	1	0.136	0.136
<i>Heterocycles</i>	2011	31	1	0.999	0.999
<i>Chirurgia (Bucharest, Romania : 1990)</i>	2011	32	1	0.375	0.375
<i>ChemCatChem</i>	2011	33	1	5.207	5.207
<i>ChemCatChem</i>	2013-15	47,51	2	5.044	10.088
<i>Journal of General and Applied Microbiology</i>	2013	44	1	0.598	0.598
<i>European Journal of Lipid Science and Technology</i>	2013	45	1	2.033	2.033
<i>Synthesis</i>	2011	37	1	2.466	2.466
<i>Process Biochemistry</i>	2012	39	1	2.627	2.627
<i>Environmental Engineering and Management Journal</i>	2012	43	1	1.117	1.117
<i>Renewable Energy</i>	2012	40	1	2.978	2.978
<i>Tetrahedron</i>	2004	14	1	2.643	2.643
<i>Tetrahedron: Asymmetry</i>	2002	7	1	2.265	2.265
	2003	11,12,13	3	2.178	6.534
	2008	18-21	4	2.796	11.184
	2009	22	1	2.625	2.625
	2010	26-30	5	2.484	12.42
	2011	34-36, 38	4	2.652	10.608
	2012	41,42	2	2.115	4.23
	2013-14	48,50	2	2.165	4.33
<i>Journal of Agricultural and Food Chemistry</i>	2015	52	1	3.107	3.107
TOTAL			53	107.549	

Declar pe propria răspundere că datele corespund cu realitatea.

Cluj-Napoca,
10 aprilie 2015

Conf. Dr. Ing. Monica Ioana TOȘA