PUBLICATION LIST

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TEN RELEVANT PUBLICATIONS

1. I.-T. Trotuş, C. M. Teodorescu, V. I. Pârvulescu, I.-C. Marcu, „Enhancing oxidative dehydrogenation selectivity of ceria-based catalysts with phosphorus as additive", *ChemCatChem* 5 (2013) 757-765 (DOI: 10.1002/cctc.201200699).
2. I.-C. Marcu, N. Tanchoux, F. Fajula, D. Tichit, „Catalytic conversion of ethanol into butanol over M-Mg-Al mixed oxide catalysts (M = Pd, Ag, Mn, Fe, Cu, Sm, Yb) obtained from LDH precursors", *Catal. Lett.* 143 (2013) 23-30 (DOI: 10.1007/s10562-012-0935-9).
3. O. D. Pavel, D. Tichit, I.-C. Marcu, „Acido-basic and catalytic properties of transition-metal containing Mg-Al hydrotalcites and their corresponding mixed oxides", *Appl. Clay Sci.* 61 (2012) 52-58 (DOI: 10.1016/j.clay.2012.03.006).
4. I. Popescu, I.-T. Trotuş, I.-C. Marcu, „Study by electrical conductivity measurements of semiconductive and redox properties of ceria and phosphated ceria catalysts", *Appl. Catal. B* 128 (2012) 55-63 (DOI: 10.1016/j.apcatb.2012.01.037).
5. G. Mitran, T. Cacciaguerra, S. Loridant, D. Tichit, I.-C. Marcu, „Oxidative dehydrogenation of propane over cobalt-containing mixed oxides obtained from LDH precursors", *Appl. Catal. A* 417-418 (2012) 153-162 (DOI: 10.1016/j.apcata.2011.12.038)
6. S. Tanasoi, G. Mitran, N. Tanchoux, T. Cacciaguerra, F. Fajula, I. Săndulescu, D. Tichit, I.-C. Marcu, „Transition metal-containing mixed oxides catalysts derived from LDH precursors for short-chain hydrocarbons oxidation", *Appl. Catal. A* 395 (2011) 78-86 (DOI: 10.1016/j.apcata.2011.01.028).
7. I. Popescu, I. Săndulescu, Á. Rédey, I.-C. Marcu, „Study of the catalytic activity – semiconductive properties relationship for $BaTiO_3$ and $PbTiO_3$ perovskites, catalysts for methane combustion", *Catal. Lett.* 141 (2011) 445-451 (DOI: 10.1007/s10562-010-0538-2).
8. I.-C. Marcu, M. N. Urlan, Á. Rédey, I. Săndulescu, „Phosphated ceria, selective catalysts for oxidative dehydrogenation of isobutane", *C. R. Chim.* 13 (2010) 365-371 (DOI: 10.1016/j.crci.2009.12.007).

9. I.-C. Marcu, D. Tichit, F. Fajula, N. Tanchoux, „Catalytic valorization of bioethanol over Cu-Mg-Al mixed oxide catalysts", *Catal. Today* 147 (2009) 231-238 (DOI: 10.1016/j.cattod.2009.04.004).
10. S. Tanasoi, N. Tanchoux, A. Urdă, D. Tichit, I. Săndulescu, F. Fajula, I.-C. Marcu, „New Cu-based mixed oxides obtained from LDH precursors, catalysts for methane total oxidation", *Appl. Catal. A* 363 (2009) 135-142 (DOI: 10.1016/j.apcata.2009.05.007).

PhD THESIS

Oxidative dehydrogenation of *n*-butane over metal pyrophosphates based catalysts (Original title: *Déshydrogénation oxydante du n-butane sur des catalyseurs à base de pyrophosphates métalliques*) No. 64-2002, *Université "Claude Bernard" Lyon I*, Lyon, France, 2002, 180 p.
Full-text at the URL: http://tel.ccsd.cnrs.fr/documents/archives0/00/00/14/74/index_fr.html

UNIVERSITY TEXTBOOKS

1. I.-C. Marcu, I. Săndulescu, *Metode de Preparare şi Caracterizare a Catalizatorilor*, Editura Universităţii din Bucureşti 2006, 171 p. (ISBN: 973737132-1).
2. J. M. M. Millet, I.-C. Marcu, *Matériaux Catalytiques et Mécanisme de leur Fonctionnement*, Editura Universităţii din Bucureşti 2004, 166 p. (ISBN: 973-575-861-X).
3. I.-C. Marcu, *Principiile Catalizei Eterogene*, Editura Universităţii din Bucureşti 2004, 113 p. (ISBN: 973-575-886-5).
4. I.-C. Marcu, *Chimie et Technologie des Matériaux – quelques notions*, Editura Universităţii din Bucureşti 2004, 115 p. (ISBN: 973-575-848-2).

ISI-INDEXED PAPERS

1. G. Mitran, O. D. Pavel, I.-C. Marcu, „Molybdena-vanadia supported on alumina: effective catalysts for the esterification reaction of acetic acid with *n*-butanol", *J. Mol. Catal. A* 370 (2013) 104-110 (DOI: 10.1016/j.molcata.2013.01.001).
2. I.-T. Trotuş, C. M. Teodorescu, V. I. Pârvulescu, I.-C. Marcu, „Enhancing oxidative dehydrogenation selectivity of ceria-based catalysts using phosphorus as additive", *ChemCatChem* 5 (2013) 757-765 (DOI: 10.1002/cctc.201200699).
3. I.-C. Marcu, N. Tanchoux, F. Fajula, D. Tichit, „Catalytic conversion of ethanol into butanol over M-Mg-Al mixed oxide catalysts (M = Pd, Ag, Mn, Fe, Cu, Sm, Yb) obtained from LDH precursors", *Catal. Lett.* 143 (2013) 23-30 (DOI: 10.1007/s10562-012-0935-9).

4. I. Popescu, I.-T. Trotuş, I.-C. Marcu, „Study by electrical conductivity measurements of semiconductive and redox properties of ceria and phosphated ceria catalysts", *Appl. Catal. B* 128 (2012) 55-63 (DOI: 10.1016/j.apcatb.2012.01.037).
5. G. Mitran, É. Makó, Á. Rédey, I.-C. Marcu, „Esterification of acetic acid with *n*-butanol using vanadium oxides supported on γ-alumina", *CR Chim.* 15 (2012) 793-798 (DOI: 10.1016/j.crci.2012.06.004).
6. O. D. Pavel, D. Tichit, I.-C. Marcu, „Acido-basic and catalytic properties of transition-metal containing Mg-Al hydrotalcites and their corresponding mixed oxides", *Appl. Clay Sci.* 61 (2012) 52-58 (DOI: 10.1016/j.clay.2012.03.006).
7. G. Mitran, T. Cacciaguerra, S. Loridant, D. Tichit, I.-C. Marcu, „Oxidative dehydrogenation of propane over cobalt-containing mixed oxides obtained from LDH precursors", *Appl. Catal. A* 417-418 (2012) 153-162 (DOI: 10.1016/j.apcata.2011.12.038).
8. S. Tanasoi, G. Mitran, N. Tanchoux, T. Cacciaguerra, F. Fajula, I. Săndulescu, D. Tichit, I.-C. Marcu, „Transition metal-containing mixed oxides catalysts derived from LDH precursors for short-chain hydrocarbons oxidation", *Appl. Catal. A* 395 (2011) 78-86 (DOI: 10.1016/j.apcata.2011.01.028).
9. I. Popescu, I. Săndulescu, Á. Rédey, I.-C. Marcu, „Study of the catalytic activity – semiconductive properties relationship for $BaTiO_3$ and $PbTiO_3$ perovskites, catalysts for methane combustion", *Catal. Lett.* 141 (2011) 445-451 (DOI: 10.1007/s10562-010-0538-2).
10. G. Mitran, É. Makó, Á. Rédey, I.-C. Marcu, „Esterification of acetic acid with *n*-butanol using molybdenum oxides supported on γ-alumina", *Catal. Lett.* 140 (2010) 32-37 (DOI: 10.1007/s10562-010-0431-z).
11. G. Mitran, I.-C. Marcu, A. Urdă, I. Săndulescu, „Oxidative dehydrogenation of isobutane over supported V-Mo mixed oxides", *J. Serb. Chem. Soc.* 75 (2010) 1115-1124 (DOI: 10.2298/JSC091204099M).
12. A. Urdă, I. Popescu, I.-C. Marcu, G. Cârjă, N. Apostolescu, I. Săndulescu, „Methane and propane total oxidation on catalysts from FeLDH precursors", *Rev. Chim.* 61 (2010) 267-271.
13. I.-C. Marcu, M. N. Urlan, Á. Rédey, I. Săndulescu, „Phosphated ceria, selective catalysts for oxidative dehydrogenation of isobutane", *CR Chim.* 13 (2010) 365-371 (DOI: 10.1016/j.crci.2009.12.007).
14. G. Mitran, A. Urdă, I. Săndulescu, I.-C. Marcu, „Semiconductive properties of Mo-V-M-O (M = Zn, Ni, Cu, Sb) oxides, catalysts for isobutane oxidehydrogenation", *React. Kinet. Mech. Catal.* 99 (2010) 135-142 (DOI: 10.1007/s11144-009-0119-9).

15. I. Popescu, Á. Rédey, I.-C. Marcu, B. Popescu, E. Mako, I. Săndulescu, „Catalytic combustion of methane over unsupported and γ-Al_2O_3 supported Sr_2FeTaO_6 and $Sr_2Fe_{0.7}Co_{0.3}TaO_6$ double perovskites", *Rev. Roum. Chim.* 54 (2009) 1111-1117.
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17. I. Popescu, A. Urda, T. Yuzhakova, I.-C. Marcu, J. Kovacs, I. Săndulescu, „$BaTiO_3$ and $PbTiO_3$ perovskite as catalysts for methane combustion", *CR Chim.* 12 (2009) 1072-1078 (DOI: 10.1016/j.crci.2008.09.006).
18. G. Mitran, A. Urda, N. Tanchoux, F. Fajula, I.-C. Marcu, Propane oxidative dehydrogenation over Ln-Mg-Al-O catalysts (Ln = Ce, Sm, Dy, Yb), *Catal. Lett.* 131 (2009) 250-257 (DOI: 10.1007/s10562-009-0057-1).
19. A. Urdă, A. Herraïz, Á. Rédey, I.-C. Marcu, „Co and Ni ferrospinels as catalysts for propane total oxidation", *Catal. Commun.* 10 (2009) 1651-1655 (DOI: 10.1016/j.catcom.2009.05.002).
20. S. Tanasoi, N. Tanchoux, A. Urdă, D. Tichit, I. Săndulescu, F. Fajula, I.-C. Marcu, „New Cu-based mixed oxides obtained from LDH precursors, catalysts for methane total oxidation", *Appl. Catal. A* 363 (2009) 135-142 (DOI: 10.1016/j.apcata.2009.05.007).
21. F. Urlan, I.-C. Marcu, I. Săndulescu, „Oxidative dehydrogenation of *n*-butane over titanium pyrophosphate catalysts in the presence of carbon dioxide", *Catal. Commun.* 9 (2008) 2403-2406 (DOI: 10.1016/j.catcom.2008.05.038).
22. G. Mitran, I.-C. Marcu, M. Florea, I. Săndulescu, „Mo-V-M-O (M = Ni, Cu, Zn, Sb, Ta) mixed metal oxide prepared by solid-solid reaction for oxidative dehydrogenation of isobutane", *Rev. Roum. Chim.* 53 (2008) 391-397.
23. G. Mitran, I.-C. Marcu, A. Urdă, I. Săndulescu, „Oxidative dehydrogenation of isobutane over V-Mo-(Ni)-O catalysts", *Rev. Roum. Chim.* 53 (2008) 383-390.
24. I.-C. Marcu, I. Săndulescu, Y. Schuurman, J. M. M. Millet, „Mechanism of *n*-butane oxidative dehydrogenation over tetravalent pyrophosphates catalysts", *Appl. Catal. A* 334 (2008) 207-216 (DOI: 10.1016/j.apcata.2007.09.049).
25. G. Mitran, I.-C. Marcu, T. Yuzhakova, I. Săndulescu, „Selective oxidation of isobutane on V-Mo-O mixed oxide catalysts" *J. Serb. Chem. Soc.* 73 (2008) 55-64 (DOI: 10.2298/JSC0801055M).
26. M. N. Cobârlie, A. Iordăchescu, I. Săndulescu, I.-C. Marcu, „Etude de l'oxy-déshydrogénation non catalytique de l'isobutane dans un réacteur intégral", *Rev. Roum. Chim.* 52 (2007) 283-291.
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pyrophosphate catalyst", *J. Serb. Chem. Soc.* 70 (2005) 791-798 (DOI: 10.2298/JSC0506791M).

28. J. M. M. Millet, I.-C. Marcu, J. M. Herrmann, „Study by electrical conductivity measurement of redox properties of vanadium antimonate and mixed vanadium and iron antimonate", *J. Mol. Catal. A* 226 (2005) 111-117 (DOI: 10.1016/j.molcata.2004.09.052).
29. M. Marcu, I.-C. Marcu, I. Săndulescu, „Dynamic adsorption of sulphur dioxide on Y zeolites. Mathematical modelling of adsorption curves", *Rev. Chim.* 55 (2004) 897-899.
30. I.-C. Marcu, G. Linteş, I. Săndulescu, "Etude de la déshydrogénation oxydante du *n*-butane sur des catalyseurs du type B-P-O", *Rev. Roum. Chim.* 49 (2004) 711-717.
31. I.-C. Marcu, I. Săndulescu, "Study of sulfur dioxide adsorption on Y zeolite" *J. Serb. Chem. Soc.* 69 (2004) 563-569 (DOI: 10.2298/JSC0407563M).
32. I.-C. Marcu, I. Săndulescu, "The comparative study of dehydrogenation and oxidehydrogenation of *n*-butane on a titanium pyrophosphate catalyst" *Rev. Chim.* 55 (2004) 423-425.
33. I.-C. Marcu, J. M. M. Millet, I. Săndulescu, "Etude de catalyseurs de type Ti-P-O dans la déshydrogénation oxydante du *n*-butane. Identification de la phase active" *Rev. Roum. Chim.* 49 (2004) 573-583.
34. S. Loridant, I.-C. Marcu, G. Bergeret, J. M. M. Millet, "TiP_2O_7 catalysts characterized by *in situ* Raman spectroscopy during the oxidative dehydrogenation of *n*-butane" *Phys. Chem. – Chem. Phys.* 5 (2003) 4384-4389 (DOI: 10.1039/b305787a).
35. I.-C. Marcu, I. Săndulescu, J. M. M. Millet, "Effects of the method of preparing titanium pyrophosphate catalyst on the structure and catalytic activity in oxidative dehydrogenation of *n*-butane" *J. Mol. Catal. A* 203 (2003) 241-250 (DOI: 10.1016/S1381-1169(03)00376-5).
36. I.-C. Marcu, J. M. M. Millet, J. M. Herrmann, "Semiconductive and redox properties of Ti and Zr pyrophosphate catalysts (TiP_2O_7 and ZrP_2O_7). Consequences for the oxidative dehydrogenation of *n*-butane", *Catal. Lett.* 78 (2002) 273-279 (DOI: 10.1023/A:1014944231515).
37. I.-C. Marcu, I. Săndulescu, J. M. M. Millet, "Oxidehydrogenation of *n*-butane over tetravalent metal phosphates based catalysts", *Appl. Catal. A* 227 (2002) 309-320 (DOI: 10.1016/S0926-860X(01)00947-4).
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39. I.-C. Marcu, I. Săndulescu, G. Gheorghe, "The removal of sulfur dioxide from gases with synthetic zeolites", *Rev. Roum. Chim.* 45 (2000) 243-246.

PROCEEDING PAPERS

1. I.-C. Marcu, J. M. M. Millet, I. Săndulescu, „Etude par spectroscopie de RPE de TiP_2O_7, catalyseur d'oxydéshydrogénation du *n*-butane", *in* Gavrilă, L., Fînaru, A., & Grandclaudon, P., (Eds.) *Actes du Troisième Colloque Franco-Roumain de Chimie Appliquée – CoFrRoCA 2004,* Editions Alma Mater Bacău (ISBN 973-8392-36-35) & Tehnica-Info Chişinău (ISBN 9975-63-183-5), 2004, p. 495-498.

PAPERS INDEXED IN OTHER DATA BASES

1. I. Popescu, I.-C. Marcu, I. Săndulescu, D. Macovei, „Catalytic complete oxidation of methane over perovskite oxides", *Progr. Catal.* 15(1-2) (2006) 79-85.
2. I. Popescu, I.-C. Marcu, T. Yuzhakova, I. Săndulescu, „Methane combustion over M-Ce-O based catalysts (M = Mg, Al, V, W)", *Progr. Catal.* 14(1-2) (2005) 73-80.
3. I.-C. Marcu, A. Urdă, I. Săndulescu, „Oxidative dehydrogenation of *n*-butane over a MgO-supported magnesium vanadate catalyst", *Anal. Univ. Buc. – Chimie* XIV(I) (2005) 57-63.
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5. I.-C. Marcu, I. Săndulescu, "Etude de la déshydrogénation oxydante du *n*-butane sur le pyrophosphate de titanyle, $(TiO)_2P_2O_7$" *Anal. Univ. Buc. – Chimie* XIII(I-II) (2004) 287-291.
6. T.M. Sturzu, I.C. Marcu, "The simulation of multiple extraction in counter current" *Anal. Univ. Buc. – Chimie* XIII(I-II) (2004) 303-308.
7. G. Linteş, I.-C. Marcu, I. Săndulescu, "Oxidative dehydrogenation of ethylbenzene on BPO_4 catalyst" *Progr. Catal.* 12(2) (2003) 61-68.
8. I.-C. Marcu, I. Săndulescu, „Oxidative dehydrogenation of *n*-butane over M-Mg-O based catalysts (M = Ce, Ti, Mo)", *Progr. Catal.* 12(2) (2003) 69-73.
9. I.-C. Marcu, I. Săndulescu, "Oxidative dehydrogenation of *n*-butane over Ce-P-O based catalysts" *Progr. Catal.* 12(1) (2003) 27-32.
10. I.-C. Marcu, I. Săndulescu, "Etude de l'acidité des pyrophosphates de titane, catalyseurs pour la déshydrogénation oxydante du *n*-butane", *Anal. Univ. Buc. – Chimie* XII(I-II) (2003) 309-316.
11. I.-C. Marcu, I. Săndulescu, "Oxidative dehydrogenation of *n*-butane over tetravalent metal oxides catalysts", *Progr. Catal.* 11(1-2) (2002) 47-50.
12. I.-C. Marcu, I. Săndulescu, J. M. M. Millet, "Oxidative dehydrogenation of *n*-butane over tin pyrophosphate based catalysts", *Progr. Catal.* 10(1-2) (2001) 71-77.
13. A. Panovici, M. Marcu, G. Dragan, I.-C. Marcu, I. Săndulescu, "Considerations concerning sulfur

dioxide adsorption mechanism on Y zeolites", *Progr. Catal.* 9(1-2) (2000) 37-40.

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