

List of publications

ISI Articles:

1. M. Miheţ, **G. Blăniţă**, M. Dan, L. Barbu-Tudoran, M.D. Lazăr, Pt/UiO-66 nanocomposites as catalysts for CO₂ methanation process, *J Nanosci. Nanotech.* **2019**, 19, 3187-3196.
2. O. Grad, M. Miheţ, M. Dan, G. Blăniţă, T. Rusu, C. Berghian-Grosan, M.D. Lazăr, Au/reduced graphene oxide composites: eco-friendly preparation method and catalytic applications for formic acid dehydrogenation, *J. Mater. Sci.* **2019**, 54, 6991-7004;
3. D. Lupu, I. Coldea, I. Mişan, M. Lazăr, G. Blăniţă, Hydrogen storage potential in MIL-101 at 200K, *Int. J. Hydrogen Energ* **2019**, 44, 12715-12723.
4. C. Voica, M.D. Lazăr, **G. Blăniţă**, Purification of Wastewater Using a Highly Porous Metal-Organic Framework and Graphene-like Materials—A Preliminary Study, *Analytical Letts.* **2017**, 50(17), 2772-2785.
5. A. Malouche, **G. Blăniţă**, D. Lupu, J. Bourgon, J. Nelayah, C. Zlotea, Hydrogen adsorption in 1 nm Pd clusters confined in MIL-101(Cr), *J. Mater. Chem A* **2017**, 5, 23043-23052.
6. **G. Blăniţă**, M. Streza, M.D. Lazăr, D. Lupu, Kinetics of hydrogen adsorption in MIL-101 single pellets, *Int. J. Hydrogen Energ* **2017**, 42, 3064-3077.
7. A. Vulcu, L. Olenic, **G. Blăniţă**, C. Berghian-Grosan, The electrochemical behavior of a metal-organic Framework modified electrode for methanol oxidation, *Electrochimica Acta* **2016**, 219, 630-637.
8. **G. Blăniţă**, G. Borodi, M.D. Lazar, A.-R. Biris, L. Barbu-Tudoran, I. Coldea and D. Lupu, Microwave assisted non-solvothermal synthesis of metal-organic frameworks, *RSC Advances* **2016**, 6, 25967-25974.
9. **G. Blăniţă**, M. Mihet, G. Borodi, I. Misan, I. Coldea, D. Lupu, Ball milling and compression effects on hydrogen adsorption by MOF:Pt/carbon mixtures, *Micropor. Mesopor. Mater.* **2015**, 203, 195-201.
10. H. Oh, **G. Blăniţă**, D. Lupu, M. Hirscher, Experimental assessment of physical upper limit for hydrogen storage capacity at 20 K in densified MIL-101 monoliths, *RSC Advances* **2014**, 4, 2648-2651.
11. **G. Blăniţă**, I. Coldea, I. Misan, D. Lupu, Hydrogen cryo-adsorption by hexagonal prism monoliths of MIL-101, *Int. J. Hydrogen Energ* **2014**, 39(30), 17040-17046.
12. O. Ardelean, **G. Blăniţă**, G. Borodi, M.D. Lazar, I. Misan, I. Coldea, D. Lupu, Volumetric hydrogen adsorption capacity of densified MIL-101 monoliths, *Int. J. Hydrogen Energ* **2013**, 38(17), 7046-7055.

13. O. Ardelean, **G. Blăniță**, G. Borodi, M. Miheț, M. Coroș, D. Lupu, On the enhancement of hydrogen uptake by IRMOF-8 composites with Pt/carbon catalyst, *Int. J. Hydrogen Energy* **2012**, 37(9), 7378-7384.
14. J.Z. Szucs-Balazs, M. Coroș, A. Woiczehowski-Pop, **G. Blăniță**, M. Vlassa, Supported H₄SiW₁₂O₄₀ catalysts for α-pinene isomerization, *Cent. Eur. J. Chem.* **2012**, 10(4), 1208-1217.
15. S. Pruneanu, F. Pogacean, A.R. Biris, S. Ardelean, V. Canpean, **G. Blăniță**, E. Dervishi, A.S. Biris, Novel Graphene-Gold Nanoparticle Modified Electrodes for the High Sensitivity Electrochemical Spectroscopy Detection and Analysis of Carbamazepine, *J. Phys. Chem. C* **2011**, 115 (47), 23387–23394.
16. M. Vlassa, G. Borodi, A. Biris, **G. Blăniță**, M. Vlassa, C. Silvestru, Characterization by vibrational spectroscopy of coordination polymers obtained from Cu(II), Ni(II) and Zn(II) cyclam perchlorate and amaranth, *Rev. Roum. Chim.*, **2011**, 56(9), 857-867.
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22. G. Mihailescu, L. Olenic, S. Garabagiu, **G. Blăniță**, E. Fagadar - Cosma, A. S. Biris Coupling Between Plasmonic Resonances in Nanoparticles and Porphyrins Molecules, *J. Nanosc. Nanotech.* **2010**, 10, 2527–2530.
23. **G. Blăniță**, M. Bucsa, M. Coros, M. Vlassa, Synthesis of new functionalized macropolycyclic ligands based on triazacyclononane and tetraazacyclododecane, *Rev. Roum. Chim.* **2008**, 53(1), 15-19.
24. **G. Blăniță**, M. Bucsa, M. Vlassa, Convenient synthesis of peraza-crown ethers, *Synthetic Commun.*, **2006**, 36(11), 1569-1573.
25. **G. Blăniță**, M. Vlassa, Cristal-to-cristal dihydrogen to covalent bonding transformation in NaBH₄*THECN and NaBH₄*THBCN, *Revista de Chimie*, **2006**, 57(2), 167-169.

26. **G. Blăniță**, M. Vlassa, Catalytic Activity of a Dihydrogen-Bonded Complex, *Revista de Chimie*, **2005**, 56(9), 962-963.
27. S. V. Filip, E. Surducan, M. Vlassa, I. A. Silberg, **G. Jucan**, Microwave-assisted acridones preparation using an inorganic acid solid support, *Heterocyclic Commun.*, **1996**, 2, 431-434.

BDI Articles:

1. **G. Blăniță**, D. Lazăr, Review of graphene-supported metal nanoparticles as new and efficient heterogeneous catalysts, *Micro and Nanosystems* **2013**, 5(2), 138-146.

Conference proceedings:

1. I. Coldea, G. Popeneciu, D. Lupu, I. Mișan, **G. Blăniță**, O. Ardelean, Investigation of heat and mass transfer process in metal hydride hydrogen storage reactors suitable for a solar powered water pump system, *AIP Conf. Proc.* **2012**, 1425, 61-64.
2. O. Ardelean, **G. Blăniță**, G. Filoti, P. Palade, Hydrogen storage in PrNiIn and related alloys, *Journal of Physics: Conference Series (JPCS)* **2009**, 182, 012045.
3. D. Lupu, **G. Blăniță**, I. Misan, O. Ardelean, I. Coldea, G. Popeneciu, A. R. Biris, Hydrogen desorption from NaAlH₄ catalyzed by ball-milling with carbon nanofibers, *Journal of Physics: Conference Series (JPCS)* **2009**, 182, 012050.
4. **G. Blăniță**, D. Lupu, M. Lazar, A.R. Biris, V. Pascalau, O. Ardelean, I. Coldea, I. Misan, G. Popeneciu, M. Vlassa, The effect of solution/free volume ratio on the MOF-5 characteristics, *Journal of Physics: Conference Series (JPCS)* **2009**, 182, 012047.

Granted Patents:

1. **G. Blăniță**, O. Ardelean, D. Lupu, E. Surducan, G. Borodi, M. Vlassa, I. Misan, I. Coldea, A.R. Biris, G. Popeneciu, V. Surducan, Inventors, NIR&DIMT assignee, *Synthesis of metal-organic structures by microwave activation under atmospheric pressure*, Romanian patent RO 126343-B1, **2012**.
2. **G. Blăniță**, D.M. Lupu, O.N. Ardelean, M. Lazar, G. Borodi, M. Vlassa, I. Misan, I.D. Coldea, A.R. Biris, G. Popeneciu, Inventors, NIR&DIMT assignee, *Preparation of porous-metal-organic structures/carbon structures composites*, Romanian patent RO 126098-B1, **2013**.
3. **G. Blăniță**, D.M. Lupu, M. Vlassa, A.R. Biriș, I. Mișan, G. Popeneciu, I.D. Coldea, O.N. Ardelean, Inventors, NIR&DIMT assignee, *Composites of porous metal-organic structures and carbon structures for storing hydrogen*, Romanian patent RO 125846-B1, **2014**.
4. V. Surducan, E. Surducan, N.I. Gligan, **G. Blăniță**, Inventors, INCDTIM assignee, *Device for reduction losses in faulty water networks that cannot be immediately repaired*, Romanian patent RO 131580-B1, **2018**.

Patent applications:

1. D. Lupu, I. Coldea, I. Mișan, D. Lazăr, G. Borodi, G. Blăniță, Inventors, INCDTIM assignee, *Process and installation for the purification of metal-organic structures*, Romanian patent application A 2016 00665, **21st September 2016**.
2. **G. Blăniță**, D. Lupu, O. Grad, I. Mișan, I. Coldea, D. Lazăr, G. Borodi, M. Dan, INCDTIM assignee, *Green synthesis of MIL-101(Cr)*, Romanian patent application A 2017 010027, **5th December 2017**.