

## List of publications

1. O. Grad, G. Blanita, M.D. Lazar, **M. Mihet\*** – „Methanation of CO<sub>2</sub> Using MIL-53-Based Catalysts: Ni/MIL-53–Al<sub>2</sub>O<sub>3</sub> versus Ni/MIL-53”, *Catalysts*, **2021**, 11(11) 1142, <https://doi.org/10.3390/catal11111412>
2. **M. Mihet\***, M. Dan, L. Barbu-Tudoran, M.D. Lazar – “CO<sub>2</sub> methanation using multimodal Ni/SiO<sub>2</sub> catalysts: Effect of support modification by MgO, CeO<sub>2</sub>, and La<sub>2</sub>O<sub>3</sub>”, *Catalysts*, **2021**, 11(4) 443. <https://doi.org/10.3390/catal11040443>
3. O. Grad, **M. Mihet\***, G. Blanita, M. Dan, L. Barbu-Tudoran, M.D. Lazar – “MIL-101-Al<sub>2</sub>O<sub>3</sub> as catalytic support in the methanation of CO<sub>2</sub> – Comparative study between Ni/MIL-101 and Ni/MIL-101-Al<sub>2</sub>O<sub>3</sub> catalysts”, *Catalysis Today*, **2021**, 366, 114-122. <https://doi.org/10.1016/j.cattod.2020.05.003>
4. M. Dan, **M. Mihet**, G. Borodi, M.D. Lazar – “Combined steam and dry reforming of methane for syngas production from biogas using bimodal pore catalysts”, *Catalysis Today*, **2021**, 366, 87-96. <https://doi.org/10.1016/j.cattod.2020.09.014>
5. O. Grad, **M. Mihet**, M. Coros, M. Dan, M.D. Lazar, G. Blanita – “Reduced graphene oxide modified with noble metal nanoparticles for formic acid dehydrogenation”, *Catalysis Today*, **2021**, 366, 41-47, <https://doi.org/10.1016/j.cattod.2020.08.009>
6. M. Dan, **M. Mihet**, M.D. Lazar – “Hydrogen and/or syngas production by combined steam and dry reforming of methane on nickel catalysts”, *Int. J. Hydrogen Energy*, **2020**, 45, 26254–26264. <https://doi.org/10.1016/j.ijhydene.2019.12.158>
7. **M. Mihet**, M. Dan, L. Barbu-Tudoran, M.D. Lazar, G. Blanita - Controllable H<sub>2</sub> Generation by Formic Acid Decomposition on a Novel Pd/Templated Carbon Catalyst, *Hydrogen*, **2020**, 1(1), 22-37, <https://doi.org/10.3390/hydrogen1010003>
8. M.D. Lazar, **M. Mihet**, M. Dan – “Hydrogen to Methane - An Important Step in the Power-to-Gas Concept”, Reference Module in Earth Systems and Environmental Sciences, **2020**, <https://doi.org/10.1016/B978-0-12-819727-1.00032-7>
9. M.D. Lazar, L. Senila, M. Dan, **M. Mihet** – “Crude Bioethanol Reforming Process: The Advantage of a Biosource Exploitation” (chapter 10), in *Ethanol – Science and Engineering*, Editors: A. Basile, A. Iulianelli, F. Dalena, T. N. Veziroglu, **2019**, Elsevier, Amsterdam, 257–288. <https://doi.org/10.1016/B978-0-12-811458-2.00010-9>
10. **M. Mihet**, O. Grad, G. Blanita, T. Radu, M. D. Lazar – “Effective Encapsulation of Ni nanoparticles in metal-organic frameworks and their application for CO<sub>2</sub> methanation”, *Int. J. Hydrogen Energy*, **2019**, 44, 13383–13396. <https://doi.org/10.1016/j.ijhydene.2019.03.259>
11. O. Grad, **M. Mihet**, M. Dan, G. Blanita, T. Radu, C. Berghian-Grosan, M. D. Lazar – “Au/reduced graphene oxide composites: eco-friendly preparation method and catalytic applications for formic acid dehydrogenation”, *J. Mater. Sci.*, **2019**, 54, 6991–7004. <https://doi.org/10.1007/s10853-019-03394-y>
12. **M. Mihet**, G. Blanita, M.Dan, L. Barbu-Tudoran, M.D. Lazar – “Pt/UiO-66 nanocomposites as catalysts for CO<sub>2</sub> methanation process”, *J. Nanosci. Nanotechnol.*, **2019**, 19, 3187-3196. doi: [10.1166/jnn.2019.16607](https://doi.org/10.1166/jnn.2019.16607)
13. **M. Mihet**, M.D. Lazar – “Methanation of CO<sub>2</sub> on Ni/γ-Al<sub>2</sub>O<sub>3</sub>: Influence of Pt, Pd or Rh promotion”, *Catal Today*, **2018**, 306, 294–299. <https://doi.org/10.1016/j.cattod.2016.12.001>
14. **M. Mihet**, V.-M. Cristea, P.-S. Agachi, A.-M. Cormos, M.D. Lazar – “CFD simulations, experimental validation and parametric studies for the catalytic reduction of NO by hydrogen in a fixed bed reactor”, *RSC Adv.*, **2016**, 6, Issue 92, 89259–89273. <https://doi.org/10.1039/C6RA18294A>
15. M. Dan, **M. Mihet**, M.D. Lazar, L.M. Muresan – “Promoted alumina supported Ni catalyst for ethanol steam reforming”, *Studia Chimica UBB*, **2016**, LXI, 2, 137–154.
16. M. Dan, **M. Mihet**, Z. Tasnadi-Asztalos, G. Katona, M.D. Lazar – “Hydrogen production by ethanol steam reforming on nickel catalysts: Effect of support modification by CeO<sub>2</sub> and La<sub>2</sub>O<sub>3</sub>”, *Fuel*, **2015**, 147, 260-268. <https://doi.org/10.1016/j.fuel.2015.01.050>

17. G. Blanita, **M. Mihet**, G. Borodi, I. Misan, I. Coldea, D. Lupu – "Ball milling and compression effects on hydrogen adsorption by MOF:Pt/carbon mixtures", *Microporous Mesoporous Mater*, **2015**, *203*, 195-201. <https://doi.org/10.1016/j.micromeso.2014.10.041>
18. M. Dan, L. Senila, M. Roman, **M. Mihet**, M.D. Lazar – "From wood wastes to hydrogen: preparation and catalytic steam reforming of crude bio-ethanol obtained from fir wood", *Renewable Energy* **2015**, *74*, 27-36. <https://doi.org/10.1016/j.renene.2014.07.050>
19. **M. Mihet**, M.D. Lazar – "Effect of Pd and Rh promotion on Ni/Al<sub>2</sub>O<sub>3</sub> for NO reduction by hydrogen for stationary applications", *Chem. Eng. J.* **2014**, *251*, 310-318. <https://doi.org/10.1016/j.cej.2014.04.079>
20. M-C Rosu, **M. Mihet**, I. Bratu – "The influence of drying conditions on some physical-chemical properties of TiO<sub>2</sub>-based layers prepared using different organic binders", *Mater. Sci. Semicond. Process.* **2014**, *19*, 95-100. <https://doi.org/10.1016/j.mssp.2013.12.007>
21. M-C Rosu, R-C Suciuc, **M. Mihet**, I. Bratu – "Physical chemical characterization of titanium dioxide layers sensitized with the natural dyes carmine and morin", *Mater. Sci. Semicond. Process.*, **2013**, *16*, 1551-1557. <https://doi.org/10.1016/j.mssp.2013.05.020>
22. O. Ardelean, G. Blanita, G. Borodi, **M. Mihet**, M. Coros, Dan Lupu – "On the enhancement of hydrogen uptake by IRMOF-8 composites with Pt/carbon catalyst", *Int. J. Hydrogen Energy*, **2012**, *37* (9), 7378-7384. <https://doi.org/10.1016/j.ijhydene.2012.01.133>
23. M. Dan, **M. Mihet**, A.R. Biris, P. Marginean, V. Almasan, G. Borodi, F. Watanabe, A. S. Biris, M.D. Lazar – "Supported nickel catalysts for low temperature methane steam reforming: comparison between metal additives and support modification", *Reac Kinet Mech Cat*, **2012**, *105*: 173-193. <https://doi.org/10.1007/s11144-011-0406-0>
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25. M.D. Lazar, M. Dan, **M. Mihet**, V. Almasan, V. Rednic, G. Borodi – "Hydrogen production by low temperature methane steam reforming using Ag and Au modified alumina supported nickel catalysts", *Rev. Roum. Chim*, **2011**; *56*(6): 637-642.
26. G. Blanita, O. Ardelean, D. Lupu, G. Borodi, **M. Mihet**, M. Coros, M. Vlassa, I. Misan, I. Coldea, G. Popeneciu – "Microwave assisted synthesis of MOF-5 at atmospheric pressure", *Rev. Roum. Chim*, **2011**; *56*(6): 583-588.
27. **M. Mihet**, M.D. Lazar, V. Almasan, G. Borodi – "Low temperature hydrogen selective catalytic reduction of NO on Pd/Al<sub>2</sub>O<sub>3</sub>", *Rev. Roum. Chim*, **2011**; *56*(6): 659-665.
28. O. Ardelean, G. Blanita, **M. Mihet**, I. Coldea, D. Lupu, P. Palade – "Supported Pt and Pd catalysts as additive for hydrogen adsorption enhancement in MOFs", *Rev. Roum. Chim*, **2011**; *56*(6): 655-657.
29. D. Lupu, O. Ardelean, G. Blanita, G. Borodi, M.D. Lazar, A. R. Biris, I. Coldea, **M. Mihet**, I. Misan, G. Popeneciu – "Synthesis and hydrogen adsorption properties of a new iron based porous metal-organic framework", *Int. J. Hydrogen Energy*, **2011**, *36* (5) 3586-3592. <https://doi.org/10.1016/j.ijhydene.2010.12.043>
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31. J. Mattusch, **M. Cîmpean**, R. Wennrich, – „Enzyme – Assisted Extraction of Arsenic Species from Plant Material”, *Intern. J. Environ. Anal. Chem*, **2006**, *86* (9), 629-640. <https://doi.org/10.1080/03067310600557489>