

Universitatea Babeş-Bolyai
Facultatea de Biologie și Geologie
Departamentul de Biologie și
Ecologie al Liniei Maghiare
Șef lucrări dr. Pap Zsolt

LISTA
lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat –

Pap Zs.: Synthesis, morpho-structural characterization and environmental application of titania photocatalysts obtained by rapid crystallization. Conducătorii tezei: Prof. Dr. Ionel Cătălin-Popescu, Prof. Dr. András Dombi, Universitatea Babeş-Bolyai, Facultatea de Chimie și Inginerie Chimică, Universitatea din Szeged, Facultatea de Științele Naturii și Informatică

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. G. Veréb, K. Hernádi, L. Baia, G. Rákhely, Zs. Pap, Pilot-plant scaled water treatment technologies, standards for the removal of contaminants of emerging concern based on photocatalytic materials, in: Advanced Nanostructures for Environmental Health: Micro and Nano Technologies, 2019: pp. 493–523. <https://doi.org/10.1016/B978-0-12-815882-1.00012-4>
2. L. Baia, Zs. Pap, K. Hernadi, M. Baia, Advanced nanostructures for environmental health: Micro and nano technologies, 2019. <https://doi.org/10.1016/C2017-0-02523-5>.
3. L. Baia, M. Baia, K. Hernadi, Zs. Pap, J. Popp, Perspectives of environmental health issues addressed by advanced nanostructures, in: Advanced Nanostructures for Environmental Health: Micro and Nano Technologies, 2019: pp. 525–547. <https://doi.org/10.1016/B978-0-12-815882-1.00013-6>.
4. M. Baia, Zs. Pap, K. Hernadi, L. Baia, When the nanostructures meet the environmental health key issues, in: Advanced Nanostructures for Environmental Health: Micro and Nano Technologies, 2019: pp. 1–33. <https://doi.org/10.1016/B978-0-12-815882-1.00001-X>.

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. E. Szabó, Zs. Pap, G. Simon, A. Dombi, L. Baia, K. Hernádi, New insights on the simultaneous removal by adsorption on organoclays of humic acid and phenol. Water 8 (2016) 21. <https://doi.org/10.3390/w8010021>.
2. K. Vajda, K. Saszet, E.Zs. Kedves, Zs. Kása, V. Danciu, L. Baia, K. Magyari, K. Hernádi, G. Kovács, Zs. Pap, Shape-controlled agglomeration of TiO₂ nanoparticles. New insights on polycrystallinity vs. single crystals in photocatalysis. Ceram Int 42 (2016) 3077–3087. <https://doi.org/10.1016/j.ceramint.2015.10.095>.
3. I. Székely, G. Kovács, L. Baia, V. Danciu, Zs. Pap, Synthesis of shape-tailored WO₃ micro-/nanocrystals and the photocatalytic activity of WO₃/TiO₂ composites. Materials 9 (2016) 258. <https://doi.org/10.3390/ma9040258>.
4. L. Baia, E. Orbán, S. Fodor, B. Hampel, E.Z. Kedves, K. Saszet, I. Székely, É. Karácsonyi, B. Réti, P. Berki, A. Vulpoi, K. Magyari, A. Csavdári, C. Bolla, V. Coșoveanu, K. Hernádi, M. Baia, A. Dombi, V. Danciu, G. Kovács, Zs. Pap, Preparation of TiO₂/WO₃ composite

- photocatalysts by the adjustment of the semiconductors' surface charge. *Mater Sci Semicond Process* 42 (2016) 66–71. <https://doi.org/10.1016/j.mssp.2015.08.042>.
5. S. Fodor, G. Kovács, K. Hernádi, V. Danciu, L. Baia, Zs. Pap, Shape tailored Pd nanoparticles' effect on the photocatalytic activity of commercial TiO₂ *Catal Today* 284 (2017) 137–145. <https://doi.org/10.1016/j.cattod.2016.11.011>.
 6. Z.-R. Tóth, G. Kovács, K. Hernádi, L. Baia, Zs. Pap, The investigation of the photocatalytic efficiency of spherical gold nanocages/TiO₂ and silver nanospheres/TiO₂ composites. *Sep Purif Technol* 183 (2017) 216–225. <https://doi.org/10.1016/j.seppur.2017.03.065>.
 7. T. Gyulavári, Zs. Pap, G. Kovács, L. Baia, M. Todea, K. Hernádi, G. Veréb, Peroxo group enhanced nanorutile as visible light active photocatalyst. *Catal Today* 284 (2017) 129–136. <https://doi.org/10.1016/j.cattod.2016.11.012>.
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 10. B. Boga, I. Székely, Zs. Pap, L. Baia, M. Baia, Detailed Spectroscopic and Structural Analysis of TiO₂/WO₃ Composite Semiconductors. *J. Spectr.* 2018 (2018) 260458. <https://doi.org/10.1155/2018/6260458>.
 11. E. Bárdos, G. Kovács, T. Gyulavári, K. Németh, E. Kecsenovity, P. Berki, L. Baia, Zs. Pap, K. Hernádi, Novel synthesis approaches for WO₃-TiO₂/MWCNT composite photocatalysts- problematic issues of photoactivity enhancement factors. *Catal Today* 300 (2018) 28–38. <https://doi.org/10.1016/j.cattod.2017.03.019>.
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 16. B. Hampel, G. Kovács, Z. Czekes, K. Hernádi, V. Danciu, O. Ersen, M. Girleanu, M. Focşan, L. Baia, Zs. Pap, Mapping the Photocatalytic Activity and Ecotoxicology of Au, Pt/TiO₂ Composite Photocatalysts. *ACS Sustain Chem Eng* 6 (2018) 12993–13006. <https://doi.org/10.1021/acssuschemeng.8b02465>.
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 21. E. Bárdos, A.K. Király, Zs. Pap, L. Baia, S. Garg, K. Hernádi, The effect of the synthesis temperature and duration on the morphology and photocatalytic activity of BiOX (X = Cl, Br, I) materials. *Appl Surf Sci* 479 (2019) 745–756. <https://doi.org/10.1016/j.apsusc.2019.02.136>.
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 24. K. Magyari, Zs. Pap, Z.R. Tóth, Z. Kása, E. Licarete, D.C. Vodnar, K. Hernadi, L. Baia, The impact of copper oxide nanoparticles on the structure and applicability of bioactive glasses. *J Sol-gel Sci Technol* 91 (2019) 634–643. <https://doi.org/10.1007/s10971-019-05066-4>.
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37. Z. Kovács, C. Molnár, U.L. Štangar, V.-M. Cristea, Zs. Pap, K. Hernadi, L. Baia, Article optimization method of the solvothermal parameters using box–behnken experimental design—the case study of zno structural and catalytic tailoring. *Nanomaterials* 11 (2021) 1334. <https://doi.org/10.3390/nano11051334>.
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D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

- Selecție cu maximum 20 lucrări în volume de conferințe

E. Brevete obținute în întreaga activitate

Data: 30.10.2025.

Semnătura: