

LISTĂ DE LUCRĂRI

a) Lista celor maximum 10 lucrări relevante

1. **Mahu, E.**, Ignat, M., Cojocaru, C., Samoila, P., Coromelci, C., Asaftei I., Harabagiu, V., Development of Porous Titania Structure with Improved Photocatalytic Activity: Response Surface Modeling and Multi-Objective Optimization, *Nanomaterials*, 10, 988, (2020). <https://doi.org/10.3390/nano10050998>. IF: 4.4
2. Samoila, P., Cojocaru, C., **Mahu, E.**, Ignat, M., Harabagiu, V., Boosting catalytic wet-peroxide-oxidation performances of cobalt ferrite by doping with lanthanides for organic pollutants degradation, *Journal of Environmental Chemical Engineering*, 9, 10496, 2213-3437, (2021). doi.org/10.1016/j.jece.2020.104961. IF: 7.4
3. **Mahu, E.**, Coromelci, C.-G., Lutic, D., Asaftei, I.-V., Sacarescu, L., Harabagiu, V., Ignat, M., Tailoring Mesoporous Titania Features by Ultrasound-Assisted Sol-Gel Technique: Effect of Surfactant/Titania Precursor Weight Ratio, *Nanomaterials*, 11, 1263, (2021). doi.org/10.3390/nano11051263. IF: 4,4
4. **Mahu, E.**, Samoila, P., Ignat, M., Cojocaru, C., Harabagiu, V., Influence of fuel nature on sol-gel microwave-ignited combustion synthesis of nanosized cobalt and nickel spinel ferrites, *Comptes Rendus Chimie*, 25 (189-202), 1878-1543. (2022). doi: [10.5802/crchim.157](https://doi.org/10.5802/crchim.157). IF:1,6
5. **Turcu, E.**, Coromelci, C. G., Harabagiu, V., Ignat, M., Enhancing the Photocatalytic Activity of TiO₂ for the Degradation of Congo Red Dye by Adjusting the Ultrasonication Regime Applied in Its Synthesis Procedure, *Catalysts*, 13, 345, (2023). <https://doi.org/10.3390/catal13020345>. IF: 3,8
6. Coromelci C. G., **Turcu E.**, Doroftei F., Palamaru M. N., Ignat M., Conjugated Polymer Modifying TiO₂ Performance for Visible-Light Photodegradation of Organics, *Polymers*, 15(13), 2805, (2023). <https://doi.org/10.3390/polym15132805>. IF: 4.7
7. Asaftei I. V., Ignat M., Lungu C. N., Sandu I., **Mahu E.**, Alkylation of Benzene with Technical Fraction Propylene - Propane Over Modified B-(Al)-HZSM-5 Catalysts, *Revista de Chimie*, 70(8), 2753-2758, (2019). <https://doi.org/10.37358/RC.19.8.7421>. IF: 1.755

8. Asaftei I. V., Sandu I., Bîlbă N., Lungu C. N., Ignat M., **Mahu E.**, Oligo-Aromatization of Light Hydrocarbons from Petroleum Refining Processes Over ZnO/MFI Microporous Material, *Revista de Chimie*, 71(2), 403-413, (2020).
<https://doi.org/10.37358/RC.20.2.7943>. IF: 1.755

a) Teza sau tezele de doctorat

Nanomateriale poroase. Preparare, proprietăți, aplicații, Școala de Studii Avansate a Academiei Române, Institutul de Chimie Macromoleculară "Petru Poni" Iași, susținută public în data de 09.09.2024.

e) Articole/studii in extenso, publicate în reviste din fluxul științific internațional principal

- 1. Mahu, E.**, Ignat, M., Cojocaru, C., Samoila, P., Coromelci, C., Asaftei I., Harabagiu, V., Development of Porous Titania Structure with Improved Photocatalytic Activity: Response Surface Modeling and Multi-Objective Optimization, *Nanomaterials*, 10, 988, (2020).
<https://doi.org/10.3390/nano10050998>.
- 2. Samoila, P., Cojocaru, C., Mahu, E.**, Ignat, M., Harabagiu, V., Boosting catalytic wet-peroxide-oxidation performances of cobalt ferrite by doping with lanthanides for organic pollutants degradation, *Journal of Environmental Chemical Engineering*, 9, 10496, 2213-3437, (2021). doi.org/10.1016/j.jece.2020.104961.
- 3. Mahu, E.**, Coromelci, C.-G., Lutic, D., Asaftei, I.-V., Sacarescu, L., Harabagiu, V., Ignat, M., Tailoring Mesoporous Titania Features by Ultrasound-Assisted Sol-Gel Technique: Effect of Surfactant/Titania Precursor Weight Ratio, *Nanomaterials*, 11, 1263, (2021).
doi.org/10.3390/nano11051263.
- 4. Mahu, E.**, Samoila, P., Ignat, M., Cojocaru, C., Harabagiu, V., Influence of fuel nature on sol-gel microwave-ignited combustion synthesis of nanosized cobalt and nickel spinel ferrites, *Comptes Rendus Chimie*, 25 (189-202), 1878-1543. (2022).
doi: [10.5802/crchim.157](https://doi.org/10.5802/crchim.157).
- 5. Turcu, E.**, Coromelci, C.G., Harabagiu, V., Ignat, M., Enhancing the Photocatalytic Activity of TiO₂ for the Degradation of Congo Red Dye by Adjusting the Ultrasonication

Regime Applied in Its Synthesis Procedure, *Catalysts*, 13, 345, (2023).
<https://doi.org/10.3390/catal13020345>.

6. Coromelci C. G., **Turcu E.**, Doroftei F., Palamaru M. N., Ignat M., Conjugated Polymer Modifying TiO₂ Performance for Visible-Light Photodegradation of Organics, *Polymers*, 15(13), 2805, (2023). <https://doi.org/10.3390/polym15132805>.

f) Publicații in extenso apărute în lucrări ale principalelor conferințe internaționale de specialitate

1. Mahu Elvira, Ignat Maria, Samoila Petrisor, Sacarescu Liviu, Harabagiu Valeria, „**Modified sol-gel synthesis of doped TiO₂ with rare earth elements**”, The fifth international conference of the cis countries sol-gel synthesis and research of inorganic compounds, hybrid functional materials and disperse systems, Book of Abstract, Saint-Petersburg. ISBN 978-5-00105-343-9., pp.120, (2018).

g) Alte publicații

Participări la manifestări științifice - Comunicări orale

- 1 E. Mahu, M. Ignat, C. Coromelci-Pastravanu, P. Samoilă, V. Harabagiu, “ *Insights into innovative synthesis of mesoporous titania: effect of microwave annealing time on textural and structural properties*”, Abstract în sesiunea de comunicări științifice a studenților, masteranzilor și doctoranzilor „Chimia – frontieră deschisă spre cunoaștere”, pag. 17, ediția a IX-a, 29-30 iunie 2018, Iași, România.

- 2 E. Mahu, C. Coromelci-Păstrăvanu, M. Ignat, P. Samoilă, V. Harabagiu, „*Effect of microwave annealing time on nanostructure formation of mesoporous titania photocatalyst*”, Abstract in Book of Abstract „XXXV-A Conferința Națională de Chimie”, pag. 9, 2-5 octombrie 2018 Călimănești – Căciulata, Vâlcea, România. <http://conference.oltchim.ro/>

- 3 E. Mahu, M. Ignat, C. Cojocar, P. Samoila, I. Asaftei, V. Harabagiu, „*Development of mesoporous titania with improved photocatalytic activity*”, Abstract in Book of Abstract the 12th

International Symposium of the Romanian Catalysis Society „RomCat2019”, pag. 50-51, 5-7 iunie 2019, București, România. <http://www.chimie.unibuc.ro/romcat/>

4 E. Mahu, M. Ignat, C. Cojocaru, P. Samoilă, C. Coromelci-Pastravanu, V. Harabagiu, „*Effective adsorbents and photocatalysts based on mesoporous titania obtained by ultrasounds assisted synthesis*”, Abstract in Sesiunea de comunicări științifice a studenților, masteranzilor și doctoranzilor „Chimia – frontieră deschisă spre cunoaștere”, pag. 12, ediția a X-a, 20-21 iunie 2019, Iași, România. <http://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>

5 E. Mahu, M. Ignat, C. Cojocaru, P. Samoila, C. Coromelci, V. Harabagiu, “*Correlation of Mesoporous Titania Properties with Titanium Sources Used in the Ultrasound Synthesis Procedure*”, Abstract in Book of Abstract the Vth edition of the International Conference „New trends in environmental and materials engineering”, 23 – 25 octombrie, 2019, Galați, România. <http://www.teme.ugal.ro/>

6 M. Ignat, C. Coromelci, S. Vishkulli, E. Mahu, V. Harabagiu, „*A Step Forward in the Development of Titania Photocatalyst Synthesis: Plasma-Induced Porous Structure*”, Abstract in Book of Abstract the Vth edition of the International Conference „New trends in environmental and materials engineering”, 23 – 25 octombrie, 2019, Galați, România. <http://www.teme.ugal.ro/>

7 E. Mahu, M. Ignat, C. Coromelci, L. Sacarescu, V. Harabagiu, „*Alcoxides as Titania Source: A Study on the Synthesized TiO₂ Properties*”, Abstract in Book of Abstract Sesiunea de comunicări științifice a tinerilor cercetători ICMPP – poartă deschisă spre viitor, „MacroYouth’2020”, pag. 25, Ediția I-a, 19 noiembrie 2020, Iași, România. <https://icmpp.ro/events/conferences/macroyouth.php>

8 M. Ignat, E. Turcu, P. Samoila, C. Cojocaru, L. Sacarescu, G. Predeanu, V. Harabagiu, F. Cosmulescu, “*Lightweight carbonaceous materials derived from waste foam-like materials for oil spill remediation*”, Abstract in Book of Abstract „14th International Conference on Physics of Advanced Materials”, pag. 86, 8-15 septembrie 2022, Dubrovnik, Croația. <https://icpams.com/main/wp-content/uploads/BoA-ICPAM14-webfriendly.pdf>

9 A. I. Barzic, E. Turcu, M. Asandulesa, C. Tugui, R. M. Albu, “*Evaluation of mechanical and dielectric properties of some biodegradable cellulose-based composites*”, Abstract in Book of Abstract The 7th International Colloquium „Physics of Materials” – PM 7, 10-11 noiembrie 2022, București, România.

10 R. M. Albu, M. Asandulesa, E. Turcu, C. Tugui, A. I. Barzic, “*Estimation of the dielectric properties of cellulose ether-based composites for energy storage purposes*”, Abstract in Book of Abstract 10 International summit scientific research congress, 17-18 March 2023, Sanliurfa, Türkiye.<https://www.eygev.org/en/announcement/44/the-10th-international-gap-summit-scientific-research-congress>

11 E. Turcu, M. Ignat, C. Coromelci, L. Sacarescu, V. Harabagiu, " *Study of sunflower and corn stalk pith as raw materials in preparation of carbonaceous adsorbents*", Sesiunea de comunicări științifice a tinerilor cercetători ICMPP – poartă deschisă spre viitor, „MacroYouth’2022”, Ediția III-a, 18 noiembrie 2022, Iași, România. <https://icmpp.ro/macroyouth2022/>

Participări la manifestări științifice – Postere

1 E. Mahu, M. Ignat, P. Samoila, L. Sacarescu, V. Harabagiu, „*Modified sol-gel synthesis of doped TiO₂ with rare earth elements*”, Abstract in Book of Abstract the 5th International Conference of the CIS Countries „Sol-Gel Synthesis and Research of Inorganic Compounds, Hybrid Functional Materials and Disperse Systems - «SOL-GEL 2018»”, pag. 120, 27-31 August, Sankt-Petersburg, Rusia. <http://en.sol-gel2018.ru/>

2 E. Mahu, C. Coromelci-Pastravanu, M. Ignat, P. Samoila, V. Harabagiu, „*Modified sol-gel synthesis of powdered mesoporous titania: Influence of microwave-annealing on physical properties*”, (Poster), „12th International Conference on Physics of Advanced Materials”, 22-28 septembrie 2018, Heraklion, Grecia.

3 C. Coromelci, E. Mahu, P. Samoilă, C. Cojocaru, M. Ignat, „*Effect of the ultrasound*

regime used during synthesis on the propersties of mesoporous titania”, Abstract in Book of Abstract „XXXV-A Conferința Națională de Chimie”, pag. 11, 2-5 octombrie 2018 Călimănești – Căciulata, Vâlcea, România. <http://conference.oltchim.ro/>

4 C. Coromelci, E. Mahu, I. Asaftei, D. Lutic, M. Ignat, „*Ultrasound-assisted synthesis of mesoporous titania for efficient adsorbents and photocatalysts obtaining*”, Abstract in Book of Abstract „IasiChem”, pag.52, 25-26 octombrie 2018, Iași, România.

5 E. Mahu, C. Coromelci, D. Lutic, I. Asaftei, M. Ignat, „*Effect of US regime on mesoporous titania properties*”, Abstract in Book of Abstract „IasiChem”, pag. 73, 25-26 octombrie 2018, Iași, România.

6 E. Mahu, Ignat Maria, Cojocaru Corneliu, Samoila Petrisor, Coromelci Cristina, Harabagiu Valeria, "Effect of microwave calcination of mesoporous titania" (poster P-09), Abstract in Book of Abstract "CHIMIA - FRONTIERĂ DESCHISĂ SPRE CUNOAȘTERE,, The X edition, pag.54-55, June 20-21 , 2019, Iasi, România. <http://www.chem.uaic.ro/ro/manifestari/ssmd-2019.html>

7 M. Ignat, C. Coromelci, E.Mahu , P. Samoilă, C. Cojocaru, L. Sacarescu, „*One-pot synthesis of porous carbon using surfactant micelles as carbon source in the soft-templated silica synthesis procedure*”, (Poster S6–300), the 21st Romanian International Conference on „Chemistry and Chemical Engineering”, 4-7 septembrie 2019, Constanța, România. <http://riccce21.chimie.upb.ro/>

8 E. Mahu, M. Ignat, C. Cojocaru, C. Coromelci, P. Samoila, I. Asaftei, V. Harabagiu, „*Comparative study of Congo Red dye and 2,4-diclorophenoxyacetic acid herbicide photodegradation over mesoporous titania*” (Poster S5–145), the 21st Romanian International Conference on „Chemistry and Chemical Engineering”, 4-7 septembrie 2019, Constanța, România. <http://riccce21.chimie.upb.ro/>

9 E. Mahu, M. Ignat, C. Cojocaru, P. Samoila, C. Coromelci, V. Harabagiu , „*Photodegradation of congo red dye and 2,4 dichlorophenoxyacetic acid herbicide using*

mesoporous titania photocatalyst”, Abstract in Book of Abstract International Conference ICICH60 “Achievements and perspectives of modern chemistry”, pag. 125, 9-11 octombrie 2019, Chişinău, Republica Moldova. <http://www.chem.asm.md/icich60/index.html>

10 E. Mahu, M. Ignat, P. Samoila, C. Cojocaru, C. Coromelci, I. Asaftei, V. Harabagiu, „*Influence of titania source on physical properties of mesoporous titania: type of titanium alkoxide*” Abstract in Book of Abstract „IasiCHEM”, pag. 27, 31 octombrie - 1 noiembrie 2019, Iaşi, România.

11 E. Mahu, M. Ignat, V. Harabagiu, „*Involvement of Various Techniques in the Synthesis of Titania: Physical Properties Investigations*”, (Poster) Sesiunea de comunicări științifice a studenților, masteranzilor și doctoranzilor, „Chimia – frontieră deschisă spre cunoaștere”, ediția a XI-a, pag. 38-39, Iaşi, 29-30 Octombrie 2020, România.

Data

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20.05.2025