

LISTA LUCRARILOR PUBLICATE

Articole publicate în reviste de specialitate cu referenți și colectiv editorial

1. Lakatos, Gh.D., **Szabó, G.S.**, Ferenci, S, Szabó, L., Advanced Surface Protection Strategies for Refurbished Hydropower Components: A Critical Review of Chemical and Manufacturing Approaches, *Journal of Manufacturing and Materials Processing*, (2026), 10(8), 288, [DOI 10.3390/jmmp10080288](https://doi.org/10.3390/jmmp10080288)
2. T.-R. Ovari, G. Katona, **G.S. Szabó**, L. M. Muresan, Epoxy Coating Incorporating Mesoporous Nanosilica Modified with Expired Drug Detralex for Anti-Corrosion Protection of Zinc, *Coatings*, (2026), 16, 664, <https://doi.org/10.3390/coatings16060664>
3. **Szabó, G.S.**, Cotet, FA., Ferenci, S, Szabó, L., Advances in Materials and manufacturing for Scalable and Decentralized Green Hydrogen Production Systems, *Journal of Manufacturing and Materials Processing*, (2026), 10(1), 28, [DOI 10.3390/jmmp10010028](https://doi.org/10.3390/jmmp10010028)
4. **G. Szabó**, T.-R. Ovari, S. Székely, G. Katona, P. Márton, Z. Hórvölgyi, L.M.J. Muresan, An eco-friendly corrosion protective coating for zinc based on phytic acid-modified silica, *Journal of Solid State Electrochemistry*, (2025) 1-14 <https://doi.org/10.1007/s10008-025-06422-x>
5. T.-R. Ovari, A. M.V. Brânzanic, G. Katona, **G. Szabó**, L.-M. Muresan, New eco-friendly corrosion inhibitor for zinc based on expired Detralex drug. Adsorption, Electrochemical and Computational Studies. *Materials Today Communication*, (2025), 46, 112739, [DOI 10.1016/j.mtcomm.2025.112739](https://doi.org/10.1016/j.mtcomm.2025.112739)
6. J. Both, **G. Szabó**, A. Ciorîță, L. M. Muresan: Silver Linings: Electrochemical Characterization of TiO₂ Sol-Gel Coating on Ti6Al4V with AgNO₃ for Antibacterial Excellence, *Coatings*, (2024), 14(12), 1532; <https://doi.org/10.3390/coatings14121532>
7. P. Márton, L. Áder, D. M. Kemény, A. Rácz, D. Kovács, N. Nagy, **G. S. Szabó**, Z. Hórvölgyi: Chitosan-surfactant composite nanocoatings on glass and zinc surfaces prepared from aqueous solutions, *Molecules* (2024), 29(13), 3111; <https://doi.org/10.3390/molecules29133111>
8. T.-R. Ovari, B. Trufan, G. Katona, **G. Szabó**, L. M. Muresan Correlations between the anti-corrosion properties and the photocatalytic behavior of epoxy coatings incorporating modified graphene oxide deposited on a zinc substrate, *RSC Advances*, (2024), 14, 10826, [DOI: 10.1039/d4ra00413b](https://doi.org/10.1039/d4ra00413b)
9. P. Márton, B. Szolnoki, N. Nagy, A. Deák, D. Zámbo, **G. S. Szabó**, Z. Hórvölgyi: Wetting and swelling behaviour of N-acetylated thin chitosan coatings in aqueous media, *Heliyon*, (2024) <https://doi.org/10.1016/j.heliyon.2023.e23201>
10. Buier, R.; **Szabó, G.S.**; Katona, G.; Muntean, N.; Muresan, L.M. Influence of pH on the Inhibiting Characteristics of Cresol Red Incorporated in Chitosan Coatings on Zinc. *Metals* (2023), 13, 1958. <https://doi.org/10.3390/met13121958>

11. T.-R. Ovari, T. Toth, G. Katona, **G. Szabó**, L. M. Muresan: Epoxy Coatings Doped with (3-Aminopropyl)triethoxysilane-Modified Silica Nanoparticles for Anti-Corrosion Protection of Zinc, *Coatings*, **(2023)**, 13(11), 1844; <https://doi.org/10.3390/coatings13111844>
12. J. Both, A.-P. Fülöp, G. **Szabó**, G. Katona, A. Ciorîță, L. M. Muresan: Effect of the preparation method on the properties of Eugenol-doped TiO₂ coating on Ti substrate, *Gels*, **(2023)**, (I.f.4,6) <https://doi.org/10.3390/gels9080668>
13. T.-R. Ovari, Á. F. Szőke, G. Katona, **G. S. Szabó**, L. M. Muresan: Temporary Anti-Corrosive Double Layer on Zinc Substrate Based on Chitosan Hydrogel and Epoxy Resin, *Gels*, **(2023)**, 9(5), 361; <https://doi.org/10.3390/gels9050361>
14. P. Márton, O. T. Nagy, D. Kovacs, B. Szolnoki, J. Madarasz, N. Nagy, **G. S. Szabó**, Z. Hórvölgyi: Barrier behaviour of partially N-acetylated chitosan layers in aqueous media, *International Journal of Biological Macromolecules*, **(2023)** 232, 123336, doi.org/10.1016/j.ijbiomac.2023.09.123336
15. T.R. Ovari, G. Katona, M. Coros, **G. Szabo**, L. M. Muresan: Corrosion behaviour of zinc coated with composite silica layers incorporating poly(amidoamine)-modified graphene oxide, *Journal of Solid state Electrochemistry*, **(2023)**, doi.org/10.1007/s10008-022-05358-w
16. Both, J; **Szabó, GS**, Muresan, L. M: Study on the corrosion inhibition efficiency of aluminum tripolyphosphate on zinc substrate, *Studia UBB Chemia*, **(2022)**, 67 (4) p. 261-272, [DOI:10.24193/subbchem.2022.4.17](https://doi.org/10.24193/subbchem.2022.4.17)
17. Both, J; Mezei, R., **Szabó, GS**, Muresan, L. M., Electrochemical investigation of the corrosion inhibiting effect of organic paints doped with benzotriazole coated on steel substrates, *Protection of metals and Physical Chemistry of Surfaces*, **(2022)**, 58 (4) p 822-833, [DOI:10.1134/S2070205122040086](https://doi.org/10.1134/S2070205122040086)
18. **Szabó, G.S**, Csiki, E., Szőke, Á. F., Muntean, N, Determination of the antioxidant activity of different types of coffee by means of Briggs-Rauscher analytical method, *Studia UBB Chemia*, **(2022)**, 67 (3) p. 7-16 [DOI: 10.24193/subbchem.2022.3.01](https://doi.org/10.24193/subbchem.2022.3.01)
19. **Szabó, G.S.**, Szabó, R., Szabó, L., A review of the mitigating methods against the energy conversion decrease in solar panels, *Energies*, **(2022)**, 15(18), 6558, doi.org/10.3390/en15186558
20. Á. F. Szőke, **G. Szabó**, G. Katona, G. Bliet, LM Muresan: Correlations between the Chitosan Solution Viscosity and the Anticorrosive Protection Efficiency of Indigo Carmine-impregnated Chitosan Coatings on Zinc, *Protection of metals and Physical Chemistry of Surfaces*, **(2022)**, 58 (3) p:574-584; <https://doi.org/10.1134/S2070205122030224>
21. Both, J; **Szabo, GS**; Katona, G; Muresan, LM: Anti-corrosive Polystyrene Coatings Modified with Tannic Acid on Zinc and Steel Substrates. *Journal of Electrochemical Science and Engineering*, **(2022)** 12 (4) p 721-730 [DOI:10.5599/jese.1293](https://doi.org/10.5599/jese.1293) WOS:000809637700001
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25. P. Márton, E. Albert, N. Nagy, B. Tegze, **G. S. Szabó**, Z. Hórvölgyi: Chemically modified chitosan coatings: wetting and electrochemical studies, *Studia UBB Chemia*, (2020) 65 (3), p. 63-79, [DOI:10.24193/subbchem.2020.3.05](https://doi.org/10.24193/subbchem.2020.3.05).
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Lucrări publicate în volumele unor conferințe naționale cu referenți și comitet de program

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9. Szőke, Á.F., Kerekes, E., Timár, D.K., Turdean, G.L., Muresan, L.M., **Szabó, G.S.**; Barabás R., (*Erdélyi Természettudományi Konferencia*) *15th Transilvanian Natural Science Conference*, Noiembrie 2016, Cluj, Romania
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16. Szőke, Á.F.; **Szabó, G.S.**; Hórvölgyi, Z.; Albert, E.; Muresan, L.M., Május 2019, Split, Horvátország
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