

Publications

Reviewed articles

2023

Dziewiątka, K., Matusik, J., Trenczek-Zajac, A., Cempura, G. (2023) TiO₂-loaded nanotubular kaolin group minerals: the effect of mineral support on photodegradation of dyes as model pollutants. *Applied Clay Science*, 245, 107123.

Rybka, K., Hudcová, B., Matusik, J., Marzec, M. (2023) Interaction of vanadates with Mg/Al and Mg/Fe LDH intercalated with carbonates and sulphates based on experimental data and surface complexation modelling. *Applied Clay Science*, 242, 107047.

Sobczyk, M., Muir, B., Skalny, M., Panek, R., Matusik, J., Bajda, T. (2023) Fly ash-based zeolitic materials of different surface chemistry and texture: insight into adsorption performance and mechanisms of aqueous BTEX removal. *Journal of Environmental Chemical Engineering*, 11, 111220.

Joshi, N., Grewal, J., Matusik, J., Drewniak, Ł., Pranaw, K. (2023) Faujasite Na-X zeolite as a novel carrier for cellulase immobilization and application in biomass saccharification. *Biochemical Engineering Journal*, 198, 109017.

Grela, A., Kuc, J., Klimek, A., Matusik, J., Pamuła, J., Franus, W., Urbański, K., Bajda, T. (2023) Erythromycin scavenging from aqueous solutions by zeolitic materials derived from fly ash. *Molecules*, 28, art. no. 798, s. 1–20.

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Dziewiątka, K., Matusik, J., Rybka, K. (2022) Simultaneous scavenging of As(V) and safranin O dye by Mg/Al LDH-zeolite heterocoagulated materials: the effect of adsorbent synthesis approach on its efficiency in static and dynamic system. *Separation and Purification Technology*, 302, 122072, 1-13.

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Kumar, A. S. K., Warchoń, J., Matusik, J., Tseng, W.L., Rajesh, N., Bajda, T. (2022) Heavy metal and organic dye removal via a hybrid porous hexagonal boron nitride-based magnetic aerogel. *npj Clean Water*, 5, 24, 1-12.

Rybka, K., Matusik, J., Marzec, M. (2022) Mg/Al and Mg/Fe layered double hydroxides derived from magnesite and chemicals: The effect of adsorbent features and anions chemistry on their removal efficiency. *Journal of Cleaner Production*, 332, 130084.

Matusik, J., Koteja-Kunecka, A., Maziarz, P., Kunecka, A. (2022) Styrene removal by surfactant-modified smectite group minerals: efficiency and factors affecting adsorption/desorption. *Chemical Engineering Journal*, 428, 13084, 1-10.

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Rybka, K., Matusik, J., Słaný, M. (2021) Technical aspects of selected minerals transformation to LDH-containing materials: The structure, chemistry and affinity towards As(V). *Journal of Environmental Chemical Engineering*, 9 (6), 106792.

Wójcik-Bania, M., Matusik, J. (2021) The effect of surfactant-modified montmorillonite on the cross-linking efficiency of polysiloxanes. *Materials*, 14 (10), 2623, 1-16.

Gogoi, H., Zhang, R., Matusik, J., Leiviskä, T., Rämö, J., Tanskanen, J. (2021) Vanadium removal by cationized sawdust produced through iodomethane quaternization of triethanolamine grafted raw material. *Chemosphere*, 278, 130448, 1-9.

Rybka, K., Matusik, J., Kuligiewicz, A., Leiviskä, T., Cempura G. (2021) Surface chemistry and structure evaluation of Mg/Al and Mg/Fe LDH derived from magnesite and dolomite in comparison to LDH obtained from chemicals. *Applied Surface Science*, 538, 147923.

Matusik, J. (2021) Special issue: Layered Double Hydroxides (LDH) and LDH-based hybrid composites, *Materials*, ISSN 1996-1944, vol. 14 iss. 10 art. no. 2582, s. 1-3.

Wójcik-Bania M. (2021) Influence of the addition of organo-montmorillonite nanofiller on cross-linking of polysiloxanes – FTIR studies. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 252, 119491

Gawel R., Rogal Ł., Dąbek J., Wójcik-Bania M., Przybylski K. (2021) High temperature oxidation behaviour of non-equimolar AlCoCrFeNi high entropy alloys. *Vacuum*, 184, 109969.

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Wójcik-Bania M., Stochmal E., Duraczyńska D. (2020) Silver nanoparticles deposited on polysiloxane networks as active catalysts in dye degradation. *Journal of Applied Polymer Science*, 137, e49170.

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Maziarz, P., Matusik, J., Radziszewska, A. (2019) Halloysite/zero-valent iron nanocomposites for removal of Pb(II)/Cd(II) and As(V)/Cr(VI): Competitive effects, regeneration possibilities and mechanisms. *Journal of Environmental Chemical Engineering*, 103507 (1-11).

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