

Publications

Books and chapters in books

Maziarz, P., Prokop, A., Matusik, J. (2015) Charakterystyka porównawcza zdolności sorpcyjnych haloizytu surowego, kalcynowanego i aktywowanego kwasowo względem Pb(II), Cd(II), Zn(II) oraz As(V) - A comparative study of raw, calcined and acid activated halloysite sorption capacity towards Pb(II), Cd(II), Zn(II) and As(V). W: Sorbenty mineralne 2015: surowce, energetyka, ochrona środowiska, nowoczesne technologie: [monografia] / red. nauk. Tomasz Bajda, Elżbieta Hycnar. Kraków : Wydawnictwa AGH, 2015. ISBN: 978-83-7464-793-9, s. 193–211.

Reviewed articles

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).

Matusik, J., Hyla, J., **Maziarz, P.**, Rybka, K., Leiviskä, T. (2019) Performance of halloysite Mg/Al LDH materials for aqueous As(V) and Cr(VI) removal. *Materials*, 12, 3569.

P. Maziarz, J. Matusik, T. Leiviskä, (2019). Mg/Al LDH Enhances Sulfate removal and Clarification of AMD Wastewater in Precipitation Processes, *Materials* 12, 2334.

Bello A., Leiviskä T., Zhang R., Tanskanen J., **Maziarz P.**, Matusik J. & Bhatnagar A. (2019). Synthesis of zerovalent iron from water treatment residue as a conjugate with kaolin and its application for vanadium removal, *Journal of Hazardous Materials*, 374, 372-381.

Maziarz, P., Matusik, J., Strączek, T., Kapusta, C., Woch, W. M., Tokarz, W., Radziszewska A. & Leiviskä, T. (2019). Highly effective magnet-responsive LDH-Fe oxide composite adsorbents for As(V) removal, *Chemical Engineering Journal*, 362, 207–216.

Maziarz, P., Matusik, J., Leiviskä, T., Strączek, T., Kapusta, C., Woch, W. M., Tokarz, W., & Górniak, K. (2019). Toward highly effective and easily separable halloysite-containing adsorbents: The effect of iron oxide particles impregnation and new insight into As(V) removal mechanisms. *Separation and Purification Technology*. **210**, 390-401.

Maziarz, P., Matusik, J. (2017) Halloysite composites with Fe₃O₄ particles: the effect of impregnation on the removal of aqueous Cd(II) and Pb(II). *Mineralogia / Mineralogical Society of Poland*, **48**, no. 1-4, 106-126.

Rybka, K., Suwała, K., **Maziarz, P.**, Matusik, J. (2017) Efficiency of Pb(II) and Mo(VI) removal by kaolinite impregnated with zero-valent iron particles. *Mineralogia / Mineralogical Society of Poland* ; **48**, no. 1-4, s. 71-86.

Maziarz, P., Matusik, J. (2016) The effect of acid activation and calcination of halloysite on the efficiency and selectivity of Pb(II), Cd(II), Zn(II) and As(V) uptake. *Clay Minerals - Journal of the European Clay Groups*, **51** (no. 3), 385-394.

Conference materials

Maziarz, P., Matusik, J. (2019) Halloysite-supported iron oxide particles for As(V) removal: adsorption mechanism investigation by the XPS and Mössbauer spectroscopy. W: ECMS 2019, European Conference on Mineralogy and Spectroscopy, September 11–13, 2019, Prague, Czech Republic.

Maziarz P., Matusik J., Effectiveness of As(V) removal from wastewaters by layered double hydroxides impregnated with Fe oxide. W: *56th annual meeting of The Clay Minerals Society (CMS) and the 6th Mediterranean Clay Meeting (MCM)*, Paris, France, 1-5.07.2019.

Matusik, J., Rybka, K., **Maziarz, P.**, Hyla, J., Kuzdro, J., Tobiła, B. (2019) Halloysite-LDH heterostructured materials: performance in removal of selected anions from aqueous solutions. W: EUROCLAY 2019, International Conference on Clay Science and Technology: July 2019, Paris, France.

Maziarz P., Matusik J., Enhanced removal of Pb(II) and Cd(II) by kaolin impregnated with zerovalent iron particles. W: *XX International Conference of Young Geologists*, Herl'any, Slovakia, 02-05.04.2019.

Maziarz P., Matusik J., Application Of Halloysite Impregnated With Fe⁰ Particles For Acid Mine Drainage Water Treatment. W: 9th Mid-European Clay Conference, Zagreb, Croatia, 17-21.09.2018.

Maziarz P., Matusik J., The structural stability of Mg–Al LDH impregnated with iron oxide particles used for As(V) removal. W: III international conference on Applied mineralogy & advanced materials, Bari, Italy, 24-26.07.2018.

Maziarz P., Matusik J., Maghemite particles supported on halloysite as magnetically responsive composites for efficient As(V) removal. W: *55th annual meeting The Clay Minerals Society*, University of Illinois at Urbana-Champaign, USA, June 11-14, 2018.

Maziarz, P., Matusik, J. (2017) Layered minerals as supports for magnetite nanoparticles and their use for aqueous As(V) removal. W: ICC 2017: XVI International Clay Conference: Granada, Spain, July, 17–21, 2017, Vol. 7, ISSN 2464-9147, ISBN: 978-88-7522-089-1. s. 527.

Maziarz, P., Matusik, J. (2017) The LDH-based magnetic nanocomposites for the removal of As(V) and Mo(VI) anionic species. W: *Living clays : The 54th Annual Clay Minerals Society conference: from nano-scale interactions to incorporation in everyday life* : June 2–7, 2017, Edmonton, Alberta Canada, s. 86–87.

Maziarz, P., Matusik, J. (2016) The effect of experimental factors on alkali activation of halloysite. W: MECC 2016 : 8th Mid-European Clay Conference : July 4–8, 2016, Košice, Slovakia : book of abstracts / ed. Jana Valúchová.

Maziarz, P., Matusik, J. (2016) The influence of alkali concentration and temperature on chemical activation of halloysite / Paulina MAZIARZ, Jakub MATUSIK // *Geology, Geophysics & Environment / Akademia Górniczo-Hutnicza im. Stanisława Staszica w Krakowie* ; ISSN 2299-8004. — Tytuł poprz.: *Geologia : kwartalnik Akademii Górniczo-Hutniczej im. Stanisława Staszica w Krakowie* ; ISSN: 0138-0974. — 2016 vol. 42 no. 1, s. 97–98.

Prokop, A., **Maziarz, P.**, Matusik, J. (2015) Removal of selected anions by raw halloysite and smectite clay. *Geology, Geophysics & Environment*, vol. 41 no. 1, s. 125-126. XVI International conference of young geologists: Herl'any 2015.

Maziarz, P., Prokop, A., Matusik, J. (2015) Raw, acid activated and calcined halloysite for metals and metalloids adsorption: sorption capacity and mechanisms. W: EUROCLAY 2015: International conference on Clay science and technology, Edinburgh, 5th–10th July: programme & abstracts, s. 213.

Maziarz, P., Prokop, A., Matusik, J. (2015) A comparative study on the removal of Pb(II), Zn(II), Cd(II) and As(V) by natural, acid activated and calcinated halloysite. *Geology, Geophysics & Environment*, vol. 41 no. 1, s. 108–109. XVI International conference of young geologists: Herl'any 2015.

Maziarz, P., Matusik, J. (2014) The kinetics of heavy metals immobilization by modified halloysite. *Geology, Geophysics & Environment*, 40 no. 1, s. 108-109. International conference of Young geologists Herl'any 2014 : Międzybrodzie Żywieckie, Poland.

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