

Employment and positions

Institute of Metallurgy and Materials Science, Polish Academy of Sciences - metallurgist (2008 - 2014), assistant professor (from 2014)

Department of Mineralogy and Petrology, University of Granada - Early Stage Researcher (2009 -2012)

Scientific Career

M.Sc.: Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, 2006

M.Sc.: Department of Mineralogy and Petrology, University of Granada, 2011

Ph.D.: Department of Mineralogy and Petrology, University of Granada, 2013

Scientific achievements

1.

Rodriguez-Navarro, C., **Kudłacz, K.**, Cizer, Ö. & Ruiz-Agudo, E. (2015). Formation of amorphous calcium carbonate and its transformation into mesostructured calcite. CrystEngComm. 17, 58-72

2.

Kudłacz, K. & Rodriguez-Navarro, C. (2014). The Mechanism of Vapor Phase Hydration of Calcium Oxide: Implications for CO₂ capture. *Environmental Science & Technology*. 48, 12411-12418

3.

Ruiz-Agudo, E., **Kudłacz, K.**, Putnis, C., Putnis, A., Rodriguez-Navarro, C. (2013). The dissolution and carbonation of portlandite [Ca(OH)₂] single crystals. *Environmental Science & Technology*. 47, 11342-11349

4.

Paul, H., Baudin, T., **Kudłacz, K.** & Morawiec, A. (2012). Recrystallization in Ultra-Fine Grain Structures of AA3104 Alloy Processed by ECAP and HPT. *Materials Science Forum*. 715 - 716, 346-353.

5.

Rodriguez-Navarro, A. B., **Kudłacz, K.** & Ortega-Huertas, M. (2012). Automatic sample changer for the analysis of powder samples on an X-ray single-crystal diffractometer equipped with an area detector. *Journal of Applied Crystallography*. 45, 135-137.

6.

Rodriguez-Navarro, C., **Kudłacz, K.** & Ruiz-Agudo, E. (2012). The mechanism of thermal decomposition of dolomite: new insights from 2D-XRD and TEM analyses. (2012). *American Mineralogist*. 97, 38-51.

7.

Ossowska-Chruściel, M. D., **Kudłacz, K.**, Sikorska, A., Chruściel, J., Marzec, M., Mikułko, A., Wróbel, S., Douali, R., Legrand, Ch. (2007). Ferroelectric properties of achiral banana-shaped and calamitic - chiral thioesters. *Phase Transitions*. 80, 781-790.

Research Projects

"Increasing the accuracy of determination of local elastic strains by Kossel microdiffraction",
(Project No. UMO-2012/06/M/ST8/00449), IMMS PAS, contractor (2013-2015)
„Identification of nanostructural effects in aluminum and aluminum alloy that result from reversibly die oscillating extrusion (KoBo method)", (Project No. UMO-2012/07/B/ST8/04025), IMMS PAS, contractor (2014-2015)

Experience gained abroad

Marie Curie Fellowship, Department of Mineralogy and Petrology, University of Granada, 2009-2013

Main scientific interest

Methods of characterization of materials by means of electron diffraction (orientation imaging microscopy) and X-ray diffraction (1D and 2D). Numerical and computational aspects of experimental data analysis.