

CV

Personal details:

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Educational background:

2013	<p>M.Sc. title AGH University of Science and Technology in Kraków, Faculty of Energy and Fuels.</p> <p>Branch: Chemical Technology, specialization: Environmental Protection in Energy Production and Chemical Industry.</p> <p>M.Sc. thesis: <i>Attempts to obtain aerogels by freeze drying, characteristics of selected properties of the obtained materials.</i></p> <p>Supervisor: Andrzej Krzyżanowski, Ph.D.</p>
2012	<p>B.Sc. title AGH University of Science and Technology in Kraków, Faculty of Geology, Geophysics and Environmental Protection.</p> <p>Branch: Chemical Technology.</p> <p>B.Sc. thesis: <i>Aerogels - preparation, properties, applications.</i></p> <p>Supervisor: Andrzej Krzyżanowski, Ph.D.</p>

Research interest:

- Porous materials characterization.
- Adsorption method for determining the textural properties of solids.
- Pore structure and surface chemistry of adsorbents.
- Synthesis and characterization of porous materials with a large specific surface area e.g. zeolite templated carbons, activated carbons, aerogels.
- Modification of minerals in order to obtain functional mineral materials e.g. adsorbents, catalysts.

- Determination of adsorption properties of mineral-based materials.
- Synthesis, characterization and catalytic applications of pillared clays.
- Pillared montmorillonites as carbon dioxide nanosorbents.
- Synthesis and textural properties of appropriately tailored adsorbents for selective carbon dioxide and hydrogen storage.

Research grants and projects:

2018-2022	Grant NCN OPUS 13 - Modified montmorillonites as carbon dioxide sorbents and as: mineral sorbents, decolorizing soils and organo-mineral composites (Co-investigator) Principal Investigator: prof. Krzysztof Bahranowski.
2013-2014	Mineral composition and selected physicochemical properties of bentonites obtained from PTH CERTECH in Niodomice (Co-investigator) Principal Investigator: prof. Krzysztof Bahranowski.

Scientific experience:

Conferences / lectures / workshops / seminars

2019.10.29-30	Participation in Symposium & Workshop on Advanced Sample Preparation for Microscopy in Material Science, Czeladź, Poland.
2019.09.16-17	<i>4rd Mineral-based Sorbents Conference, Jerzmanowice, Poland.</i> Co-author of poster: Modified bentonites from Kopernica as carbon dioxide sorbent.
2019.07.16-20	<i>17th International Conference on chemistry and the Environment, Thessaloniki, Greece.</i> Co-author of poster: State-of-art on environment stability, metal recovery and reuse of spent catalyst.
2019.05.13-16	<i>6th Nanomaterials and nanotechnology meeting, Ostrava, Czech Republic.</i> Co-author of poster presentation: Pillared montmorillonites as carbon dioxide nanosorbents.
2019.03.26-27	<i>AAPG European Regional Conference, Vienna, Austria.</i> Co-author of poster: Evaluating seal potential of the chalk-type cap rocks from the Węglówka Oil Field, Outer Carpathians, Poland.
2017.09.18-19	<i>3rd Mineral-based Sorbents Conference, Kraków, Poland.</i> Co-author of oral presentation: Bentonite from the Central Slovakia Volcanic Field – a prospective raw material for Polish industry.
2016.07.12-14	<i>The 3rd International Environmental Forum, Tanta.</i> Co-author of poster: Air pollution control and flue gas desulfurization residues from Polish copper smelting facility as adsorbents of Pb(II) and Cu(II) from aqueous solutions.

2016.07.4-8	<p><i>8th Mid-European Clay Conference, Košice, Slovakia.</i></p> <p>Co-author of poster: Sorption of carbon dioxide on Ti-, Zr- and [Ti,Zr]-pillared montmorillonites.</p>
2016.06.01	<p>Participation in Workshop on Advanced Materials Research using Methods of Thermal Analysis, Wrocław, Poland.</p>
2015.10.5-7	<p>Participation in Sixth School of Fluorescence X-ray Analysis, Ustroń, Poland.</p>
2015.09.21-23	<p><i>2nd Mineral-based Sorbents Conference, Kraków, Poland.</i></p> <p>Co-author of oral presentation: Mineral composition and selected physicochemical properties of commercial bentonite from Askana deposit (Georgia).</p>
2015.08.16-21	<p><i>Goldschmidt2015, Prague, Czech Republic.</i></p> <p>Co-author of poster: Thermal transformation of Si-rich ferrihydrite to hematite via three (γ, ϵ, and β) Fe_2O_3 polymorphs.</p>
2015.07.17-22	<p><i>9th International Symposium of Surface Heterogeneity Effects in Adsorption and Catalysis on Solids, Wrocław, Poland.</i></p> <p>Co-author of poster: Characterization of selected properties of areogels synthesized by lyophilization method.</p>
2015.05.7-9	<p><i>XVIth International Conference of Young Geologists, Herl'any, Slovakia.</i></p> <p>Co-author of poster: "Four-letters" ($\gamma \rightarrow \epsilon \rightarrow \beta \rightarrow \alpha$) thermal transformation of Si-rich ferrihydrite.</p>
2014.09.16-19	<p><i>7th Mid-European Clay Conference, Dresden, Germany.</i></p> <p>Co-author of poster: The commercial bentonite from Kopernica (Tertiary, Slovakia) – petrographical and mineralogical approach.</p>

Parametric summary of the scientific output

Citations (*Scopus*): **30**, without auto-citations: **27**

Hirsch index (*Scopus*): **4**

Citations (*Web of Science*): **25**, without auto-citations: **24**

Hirsch index (*Web of Science*): **4**

Kraków, 29th January 2021