

CV

Personal details:

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Educational background:

2016	Ph.D. in Chemistry , discipline: chemistry. AGH University of Science and Technology in Kraków, Faculty of Materials Science and Ceramics Ph.D. thesis: <i>Polysiloxane networks as supports for palladium and platinum catalysts</i> . Supervisor: prof. Magdalena Hasik
2013	Certificate of completion of the course <i>Organic chemistry</i> Faculty of Chemistry Jagiellonian University in Kraków
2011	M.Sc. title AGH University of Science and Technology in Kraków, Faculty of Materials Science and Ceramics Branch: Chemical Technology, specialization: Analytics and quality control M.Sc. thesis: <i>Polysiloxanes containing caged oligosilsesquioxane units as ceramic precursors with controlled structure - obtaining and physicochemical studies</i> . Supervisor: prof. Magdalena Hasik.

Research interest:

- Polysiloxane networks as carriers for transition metals and their application in heterogeneous catalysis.
- Pyrolytic transformation of polysiloxane networks into silicon oxycarbide ceramics.
- Modification of minerals in order to obtain functional mineral materials e.g. sorbents,

catalysts and polymer-composites.

- Influence of mineral nanofiller addition on obtaining polysiloxane networks with controlled structure.
- Synthesis and physicochemical properties of clay-polysiloxane nanocomposites.
- Pillared clays - synthesis, characterization and catalytic applications.

Research grants

2021-2018	Grant NCN OPUS (2017/25/B/ST10/00768) - Modified montmorillonites as carbon dioxide sorbents and as: mineral sorbents, decolorizing soils and organo-mineral composites. (Co-investigator)
2020-2019	Grant NCN Miniatura 3 (2019/03/X/ST5/00202) - Influence of the addition of montmorillonite nanofiller on the preparation and physicochemical properties of polysiloxane networks with controlled structure. (Principal Investigator)
2017	AGH grant for young scientists (15.11.140.994) - Study of physicochemical properties of polysiloxane networks containing Si-H groups (Principal Investigator).
2016 - 2015	Grant NCN OPUS (014/13/B/ST5/01924) - Materials obtained from siloxane polymers as carriers for palladium and platinum nanoparticles for catalytic applications. (Co-investigator)
2013 - 2011	Grant NCN OPUS (N N507 457837) - SiCO materials obtained from polysiloxanes with controlled structure. (Co-investigator)

Scientific experience:

Conferences / lectures / workshops

2020.11.25-27	<i>LII Polish annual conference on Catalysis: Kraków, Poland</i> Co-author of oral presentation: <i>Physico-chemical characterization of desilicated sepiolite</i>
2019.10.29-30	Participation in Symposium & Workshop on Advanced Sample Preparation for Microscopy in Material Science. Czeladź, Poland <i>4th Mineral-based Sorbents conference, Kraków, Poland</i>
2019.09.16-17	Oral presentation: Reduction of organic dyes using silver nanoparticles deposited on polysiloxane networks
2019.05.27-29	<i>Corrosion 2019: 12th International Scientific Corrosion Conference: Warsaw, Poland</i> Co-author of poster: The effect of hafnium additions on residual stresses in scales growing at 1150°C in air on Pulse-Plasma-Sintered B-NiAl.
2019.04.1-30	Scientific internship at the Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Krakow, Poland
2017.03.15-17	<i>XLIX Polish annual conference on Catalysis: Kraków, Poland</i>

	<p>Poster presentation: Polysiloxane networks with the same structure and different distribution of reducing groups in starting systems, containing Pt particles - comparison of physicochemical and catalytic properties.</p>
2017.07.2-6	<p><i>ISPO 2017: 11th International Workshop on Silicone Polymers, Snekkersten, Denmark</i> Co-author of poster: Polysiloxane and polysiloxane-silazane networks with incorporated palladium particles</p>
2017.09.3-7	<p><i>XIVth international conference on Molecular spectroscopy: from molecules to functional materials: Kraków–Białka Tatrzańska</i> Presentation of 2 posters: SiCO materials obtained from cross-linked polysiloxanes differing in architecture and contents of Si–H groups. Influence of Si–H groups on thermal decomposition of PMHS networks with introduced Q units. Co-author of poster: Polysiloxane-silazane networks as supports for metallic platinum.</p>
2016.03.16-18	<p><i>XLVIII Polish annual conference on Catalysis: Kraków, Poland</i> Presentation of 2 posters: Polymethylhydrosiloxane networks showing reducing properties – carriers for palladium catalysts. Polyvinylsiloxane networks with incorporated platinum or palladium particles-comparison of physicochemical and catalytic properties.</p>
2016.08.28-31	<p><i>8th European silicon days: Poznań, Poland</i> Co-author of oral presentation: <i>Cross-linked polysiloxanes – materials for a variety of applications</i></p>
2015.04.26-30	<p><i>International Workshop on Silicon-Based Polymers: Aussois, Francja</i> Presentation of 2 posters: Pyrolytic transformation of polyvinylsiloxane networks containing platinum – FTIR studies. Cross-linked PMHS/Pt systems – physicochemical properties.</p>
2015.03.16-18	<p><i>XLVII Polish annual conference on Catalysis: Kraków, Poland</i> Poster presentation: Systems obtained from poly(methylhydrosiloxane) containing platinum - physicochemical and catalytic properties.</p>
2014.09.25-26	<p><i>3rd International PhD seminar: Dresden-Kraków-Warsaw, Dresden, Germany</i> Oral presentation: Polysiloxane networks and SiCO ceramics obtained from them as supports for Platinum catalysts.</p>
2014.03.19-21	<p><i>XLVI Polish annual conference on Catalysis: Kraków, Poland</i> Oral presentation: Polysiloxane networks obtained from poly(methylhydrosiloxane) as supports for platinum catalysts.</p>
2013.09.8-12	<p><i>XIIth International Conference on Molecular Spectroscopy: from molecules to nano- and biomaterials: Kraków – Białka Tatrzańska</i> Poster presentation: Influence of palladium on physicochemical properties of regular polysiloxane networks.</p>
2013.05.23	<p><i>Third International Symposium Frontiers in Polymer Science: Siges, Hiszpania</i></p>

	Poster presentation: Cross-linked poly(vinylsiloxanes) as matrices for metallic palladium. <i>XLV Polish annual conference on Catalysis: Kraków, Poland</i>
2013.03.13-15	Poster presentation: Polysiloxane carriers for platinum catalysts. <i>E-MRS 2012 Fall Meeting: Warszawa, Poland</i>
2012.09.17-21	Oral presentation: Studies of incorporation of Pt particles into regular polysiloxane networks. <i>6th European silicon days: Lyon, Francja</i>
2012.09.5-7	Co-author of poster: Vinylsiloxane-based preceramic polysiloxane networks. <i>ISOS XVI: Sixteenth International Symposium on Silicon Chemistry: Hamilton, Canada</i>
2011.08.14-18	Co-author of poster: Poly(methylvinylsiloxanes) cross-linked with cage oligosiloxane: preparation and physico-chemical properties. <i>Polymers on the Odra River: Opole, Poland</i>
2011.07.6-7	Co-author of poster: Ceramic precursors prepared from linear polysiloxanes

Teaching experience

- Organic chemistry**

In Polish: Chemia organiczna (*1st degree*, Branch: Chemical Technology at Faculty of Materials Science and Ceramics, Branch: Biomedical Engineering at Faculty of Electrical Engineering, Automatics, Computer Science and Biomedical Engineering, Branch: Mechanical and Materials Engineering at Faculty of Mechanical Engineering and Robotics) (2011 – 2015)

Achievements / awards

2018	AGH Rector Award for individual scientific achievements in 2017
2012	3-year Scholarship in the project „Doctus - Małopolska scholarship fund for PhD students”.

Parametric summary of the scientific output

Citations (*Scopus*): **90**, without auto-citations: **79**

Hirsch index (*Scopus*): **6**

Citations (*Web of Science*): **78**, without auto-citations: **71**

Hirsch index (*Web of Science*): **5**

Conference organization

- 2013 - *XIIth International Conference on Molecular Spectroscopy, Kraków Białka Tatrzańska* - member of Organizing Committee

Kraków, 17.03.2021