

**Summary Specification of Scientific Accomplishments of a Thesis Supervisor Candidate**  
 maximum 2 pages - it should be a synthesis of the most important elements of accomplishments

dr hab. Łukasz Uzarowicz, prof. of WULS	
Scientific discipline/s	Agriculture and horticulture
Professional development (scientific degrees and titles) chronologically	<ul style="list-style-type: none"> <li>• 2021 – Professor of WULS</li> <li>• 2019 – Habilitation in agriculture/agronomy, Warsaw University of Life Sciences - SGGW</li> <li>• 2009 - Ph.D., Earth sciences (area of Geography, specialization: Soil Science), Jagiellonian University in Krakow</li> <li>• 2007 - M.Sc., Geology, Jagiellonian University in Krakow</li> <li>• 2005 - M.Sc., Geography, Jagiellonian University in Krakow</li> </ul>
Most important publications/patents from the last 3 years (max. 10)	<ol style="list-style-type: none"> <li>1. Stachnik, Ł., Yde, J.C., Krzemień, K., Uzarowicz, Ł., Sitek, S., Kenis, P., 2022. SEM-EDS and water chemistry characteristics at the early stages of glacier recession reveal biogeochemical coupling between proglacial sediments and meltwater. <i>Science of The Total Environment</i> 835, 155383.</li> <li>2. Swęd, M., Uzarowicz, Ł., Duczmal-Czernikiewicz, A., Kwasowski, W., Pędziwiatr, A., Siepak, M., Niedzielski, P., 2022. Forms of metal(loid)s in soils derived from historical calamine mining waste and tailings of the Olkusz Zn–Pb ore district, southern Poland: A combined pedological, geochemical and mineralogical approach. <i>Applied Geochemistry</i>, 139, 105218.</li> <li>3. Pędziwiatr, A., Potysz, A., Uzarowicz, Ł., 2021. Combustion wastes from thermal power stations and household stoves: A comparison of properties, mineralogical and chemical composition, and element mobilization by water and fertilizers. <i>Waste Management</i>, 131, 136-146.</li> <li>4. Tarnawczyk, M., Uzarowicz, Ł., Perkowska-Pióro, K., Pędziwiatr, A., Kwasowski, W., 2021. Effect of land reclamation on soil properties, mineralogy and trace-element distribution and availability: the example of Technosols developed on the tailing disposal site of an abandoned Zn and Pb mine. <i>Minerals</i>, 11(6), 559.</li> <li>5. Uzarowicz, Ł., Górka-Kostrubiec, B., Dudzisz, K., Rachwał, M., Zagórski, Z., 2021. Magnetic characterization and iron oxide transformations in Technosols developed from thermal power station ash. <i>Catena</i>, 202, 105292.</li> <li>6. Kruczkowska B., Błaszkiwicz M., Jonczak J., Uzarowicz Ł., Moska P., Brauer A., Bonk A., Słowiński M., 2020. The Late Glacial pedogenesis interrupted by aeolian activity in Central Poland – Records from the Lake Gościąg catchment. <i>Catena</i>, 185, 104286.</li> <li>7. Uzarowicz, Ł., Charzyński, P., Greinert, A., Hulisz, P., Kabała, C., Kusza, G., Kwasowski, W., Pędziwiatr, A., 2020. Studies of technogenic soils in Poland: past, present, and future perspectives. <i>Soil Science Annual</i>, 71(4), 281–299.</li> <li>8. Stępniewska H., Uzarowicz Ł., Błońska E., Kwasowski W., Słodczyk Z., Gałka D., Hebda A., 2020. Fungal abundance and diversity as influenced</li> </ol>

	<p>by properties of Technosols developed from mine wastes containing iron sulphides: A case study from abandoned iron sulphide and uranium mine in Rudki, south-central Poland. Applied Soil Ecology, 145C, 103349.</p> <p>9. Uzarowicz, Ł., Wolińska, A., Błońska, E., Szafranek-Nakonieczna, A., Kuźniar, A., Słodczyk, Z., Kwasowski, W., 2020. Technogenic soils (Technosols) developed from mine spoils containing Fe sulphides: microbiological activity as an indicator of soil development following land reclamation. Applied Soil Ecology 156C, 103699.</p> <p>10. Wolińska, A., Włodarczyk, K., Kuźniar, A., Marzec-Grządziel, A., Grządziel, J., Gałązka, A., Uzarowicz, Ł., 2020. Soil microbial community profiling and bacterial metabolic activity of Technosols as an effect of soil properties following land reclamation: a case study from the abandoned iron sulphide and uranium mine in Rudki (south-central Poland). Agronomy 10, 1795.</p>
<p>Experience in work with PhD students (defended dissertations, initiated dissertation procedures), chronologically</p>	<ul style="list-style-type: none"> <li>• 2022, assistant supervisor in the doctoral dissertation, MA Maciej Swęd, Institute of Geology, Adam Mickiewicz University in Poznań, PhD thesis "Geochemical and mineralogical study of weathering zones from areas of exploitation of Polish deposits of zinc, lead and copper (in the Silesia-Cracow and Świętokrzyskie areas)".</li> <li>• 2017, member of the examination committee, doctoral dissertation "Interaction between soils, mining wastes and the dynamics of supergene mineral phases in metal mining environments of SE Spain", PhD student: José Matías Peñas Castejón, Universidad Politecnica de Cartagena, Spain</li> </ul>
<p>Project/grant accomplishments (from the last 10 years)</p>	<ul style="list-style-type: none"> <li>• Research project manager, no. 2011/03/D/ST10/04599, "Determination of the dynamics and mechanisms of mineral and chemical transformations in Technosols developed at ash landfills from coal power plants"; project financed by the National Science Center, SONATA 2, 2012-2016.</li> <li>• Research project manager, no. NN305325133, "Impact of sulphide minerals on the properties and mineral composition of soils in mine heaps"; project financed by the Ministry of Science and Higher Education, 2007-2009.</li> </ul>
<p>Theme scope - research problem - for the solving of which the PhD student is sought</p>	<ul style="list-style-type: none"> <li>• Geochemical, mineralogical and micromorphological characteristics of technogenic soils (Spolic Technosols) developed on mine and industrial waste disposal sites</li> <li>• Mobilization of trace elements in the soil-plant system in technogenic soils (Spolic Technosols) on mine and industrial waste dumps</li> </ul>
<p><u>Contact details:</u> Institute E-mail address Telephone</p>	<p>Institute of Agriculture lukasz_uzarowicz@sggw.edu.pl tel. (22) 5932612</p>