

**Candidate supervisor's information summary form**  
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: dr hab. Magdalena Szymańska	
Discipline/ disciplines of science	Agriculture and horticulture
Professional development (degrees and titles) in chronological order	<ul style="list-style-type: none"> <li>• 2019 – Habilitation in agriculture/agronomy, Warsaw University of Life Sciences – SGGW</li> <li>• 2005 - PhD of agricultural sciences in the scope of Agronomy</li> <li>• 2001 – MSc, Warsaw University of Life Sciences - SGGW</li> </ul>
Most important publications/patens over the last 3 years (maximum 10)	<ul style="list-style-type: none"> <li>• Sosulski, T.; Szymańska, M.; Szara, E. CO<sub>2</sub> Emissions from Soil Under Fodder Maize Cultivation. <i>Agronomy</i> 2020, 10, 1087.</li> <li>• Szymańska, M.; Szara, E.; Sosulski, T.; Wąs, A.; Van Pruissen, G.W.P.; Cornelissen, R.L.; Borowik, M.; Konkol, M. A Bio-Refinery Concept for N and P Recovery—A Chance for Biogas Plant Development. <i>Energies</i> 2019, 12, 155.</li> <li>• Szymańska, M.; Szara, E.; Wąs, A.; Sosulski, T.; van Pruissen, G.W.; Cornelissen, R.L. Struvite—An Innovative Fertilizer from Anaerobic Digestate Produced in a Bio-Refinery. <i>Energies</i> 2019, 12, 296.</li> <li>• Szymańska, M.; Sosulski, T.; Szara, E.; Wąs, A.; Sulewski, P.; van Pruissen, G.W.; Cornelissen, R.L. Ammonium Sulphate from a Bio-Refinery System as a Fertilizer—Agronomic and Economic Effectiveness on the Farm Scale. <i>Energies</i> 2019, 12, 4721.</li> <li>• Sosulski T., Szara E., Szymańska M., Stępień W., Rutkowska B., Szulc W.: Soil N<sub>2</sub>O emissions under conventional tillage conditions and from forest soil, w: Soil &amp; Tillage Research, vol. 190, 2019, ss. 86-91</li> <li>• Szara E., Sosulski T., Szymańska M.: Soil phosphorus sorption properties in different fertilization systems, w: Plant Soil and Environment, vol. 65, nr 2, 2019, ss. 78-82</li> <li>• Szara E., Sosulski T., Szymańska M.: Impact of long-term liming on sandy soil phosphorus sorption properties, w: Soil Science Annual, vol. 70, 2019, ss. 13-20</li> <li>• Szymańska M., Szara E., Wąs A., Korc M., Borowik M., Zdunek A., Rusek P., Schab S.: Agronomic value of powder and granulated struvite, <i>Przemysł Chemiczny</i>, nr 2, 2018, ss. 277-281</li> <li>• Szymańska Magdalena, Szara Ewa, Sosulski Tomasz, Stępień Wojciech, Pilarski Krzysztof, Pilarska Agnieszka: Chemical properties and fertilizer value of ten different anaerobic digestates, w: <i>Fresenius Environmental Bulletin</i>, vol. 27, nr 5a, 2018, ss. 3425-3432</li> <li>• Szara E., Sosulski T., Szymańska M., Szyszkowska K.: Usefulness of Mehlich-3 test in the monitoring of phosphorus dispersion from Polish arable soils, w: <i>Environmental Monitoring and Assessment</i>, vol. 190, nr 5, 2018, ss. 1-10</li> </ul>

Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	2015, assistant supervisor in the doctoral dissertation, Msc Agnieszka Czopowicz, Warsaw University of Life Sciences - SGGW, PhD thesis "Nutrient management on farms with different agricultural production".
Project/grants achievements (from the last 10 years)	<ul style="list-style-type: none"> <li>• Development of nutrient management models under various conditions of agricultural production. 2009-2012 r. NCN nr N N310 089136.</li> <li>• Development of a technology for the treatment and management of the digestate remaining as a by-product in the production of agricultural biogas. 2010-2014 r. NCN nr N N305 096539 – project manager.</li> <li>• Assessment of the fertilizer value and the impact on the soil properties of digestate produced from various organic substrates. 2010-2013 r. NCN N N313 4322539.</li> <li>• Low-cost and environmentally safe system for fertilizing and sowing maize. 2012- 2015 r. NCBiR PBS1/B8/4/2012.</li> <li>• BioEnergy Farm 2 „Manure, the sustainable fuel for the farm. 2014-2016 r.</li> <li>• Cradle to Cattle farming (CtoC) - 2015 – 2018 r. No: BIOENERGY/CtoCfarming/03/2016.</li> <li>• RETURN – Reducing Emission by Turning Nutrients and Carbon into Benefits". 2019 Project financed under BONUS (Art. 185) by the European Commission and the National Center for Research and Development</li> </ul>
Topic – research problem – for which the candidate supervisor seeks a doctoral student	<ul style="list-style-type: none"> <li>• Biogas production</li> <li>• Digestate management</li> <li>• Nutrients recovery from waste</li> </ul>
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