

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

Name and surname, degree, title: dr hab. Magdalena Szymańska, prof SGGW	
Discipline/ disciplines of science	Agriculture and horticulture
Professional development (degrees and titles) in chronological order	<ul style="list-style-type: none"> • 2019 – Habilitation in agriculture/agronomy, Warsaw University of Life Sciences – SGGW • 2005 - PhD of agricultural sciences in the scope of Agronomy • 2001 – MSc, Warsaw University of Life Sciences - SGGW
Most important publications/patents from the last 3 years (max. 10)	<ul style="list-style-type: none"> • Sosulski, T.; Srivastava, A.K.; Ahrends, H.E.; Smreczak, B.; Szymańska, M. Carbon Storage Potential and Carbon Dioxide Emissions from Mineral-Fertilized and Manured Soil. <i>Appl. Sci.</i> 2023, <i>13</i>, 4620. • Sulewski, P.; Ignaciuk, W.; Szymańska, M.; Wąs, A. Development of the Biomethane Market in Europe. <i>Energies</i> 2023, <i>16</i>, 2001. • Szymańska, M.; Ahrends, H.E.; Srivastava, A.K.; Sosulski, T. Anaerobic Digestate from Biogas Plants—Nuisance Waste or Valuable Product? <i>Appl. Sci.</i> 2022, <i>12</i>, 4052. • Sosulski, T.; Niedziński, T.; Jadczyzyn, T.; Szymańska, M. Influence of Reduced Tillage, Fertilizer Placement, and Soil Afforestation on CO₂ Emission from Arable Sandy Soils. <i>Agronomy</i> 2022, <i>12</i>, 3102. • Sosulski, T.; Szymańska, M.; Szara, E.; Sulewski, P. Soil Respiration under 90 Year-Old Rye Monoculture and Crop Rotation in the Climate Conditions of Central Poland. <i>Agronomy</i> 2021, <i>11</i>, 21. • Sosulski, T.; Szymańska, M.; Szara, E. CO₂ Emissions from Soil Under Fodder Maize Cultivation. <i>Agronomy</i> 2020, <i>10</i>, 1087. • Sosulski, T.; Stępień, W.; Wąs, A.; Szymańska, M. N₂O and CO₂ Emissions from Bare Soil: Effect of Fertilizer Management. <i>Agriculture</i> 2020, <i>10</i>, 602. • Wąs, A.; Sulewski, P.; Krupin, V.; Popadynets, N.; Malak-Rawlikowska, A.; Szymańska, M.; Skorokhod, I.; Wysokiński, M. The Potential of Agricultural Biogas Production in Ukraine—Impact on GHG Emissions and Energy Production. <i>Energies</i> 2020, <i>13</i>, 5755. • Sońta, M.; Łozicki, A.; Szymańska, M.; Sosulski, T.; Szara, E.; Wąs, A.; van Pruissen, G.W.P.; Cornelissen, R.L. Duckweed from a Biorefinery System: Nutrient Recovery Efficiency and Forage Value. <i>Energies</i> 2020, <i>13</i>, 5261. • Szymańska, M.; Sosulski, T.; Bożętka, A.; Dawidowicz, U.; Wąs, A.; Szara, E.; Malak-Rawlikowska, A.; Sulewski, P.; van Pruissen, G.W.P.; Cornelissen, R.L. Evaluating the Struvite Recovered from

	<p>Anaerobic Digestate in a Farm Bio-Refinery as a Slow-Release Fertiliser. <i>Energies</i> 2020, <i>13</i>, 5342.</p> <ul style="list-style-type: none"> • Sosulski T., Szara E., Szymańska M., Stępień W., Rutkowska B., Szulc W.: Soil N₂O emissions under conventional tillage conditions and from forest soil, w: <i>Soil & Tillage Research</i>, vol. 190, 2019, ss. 86-91
Experience in work with PhD students (defended dissertations, initiated dissertation procedures), chronologically	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/grant accomplishments (from the last 10 years)	<ul style="list-style-type: none"> • Sustainable Intensification in agriculture as a way to the eco-efficient farming sector in the context of upcoming social and environmental challenges. 2022 – 2025. • 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. • 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. • Low-cost and environmentally safe system for fertilizing and sowing maize. 2012- 2015 r. NCBiR PBS1/B8/4/2012. • BioEnergy Farm 2 „Manure, the sustainable fuel for the farm. 2014-2016 r. • Cradle to Cattle farming (CtoC) - 2015 – 2018 r. No: BIOENERGY/CtoCfarming/03/2016. • 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
Theme scope - research problem - for the solving of which the PhD student is sought	<ul style="list-style-type: none"> • Biogas production • Digestate management • Nutrients recovery from waste • Greenhouse gas emissions from agriculture • Assessment of soil health parameters
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