

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

Name and surname, degree, title: D.Sc. Andrzej Antczak, associate professor	
Academic discipline/disciplines	Forestry sciences
Professional development (degrees and titles) in chronological order	<p>Master engineer of chemistry (2005, Faculty of Chemistry Warsaw University of Technology, chemical technology course, speciality: technology of high-energetic materials and safety of chemical processes);</p> <p>Doctor engineer of forestry sciences (2010, Faculty of Wood Technology Warsaw University of Life Sciences);</p> <p>Doctor engineer (with habilitation) of forestry sciences (2019, Faculty of Wood Technology Warsaw University of Life Sciences);</p> <p>Associate professor (2022, Department of Wood Science and Wood Preservation, Institute of Wood Sciences and Furniture Warsaw University of Life Sciences).</p>
Most important publications/ patents in the last 3 years (maximum 10)	<p>Dąbkowska-Suszał K., Antczak A., Akus-Szylberg F., Zawadzki J., 2025: „Enzymatic hydrolysis of pretreated lignocellulosic feedstocks improved by membrane separation”. <i>Drewno</i>, <a href="https://doi.org/10.53502/wood-199839">https://doi.org/10.53502/wood-199839</a>.</p> <p>Krutul D., Szadkowski J., Výbohová E., Kučerová V., Čabalová I., Antczak A., Szadkowska D., Drożdżek M., Zawadzki J., 2024: „Effect of steam explosion pretreatment on chosen saccharides yield and cellulose structure from fast-growing poplar (<i>Populus deltoides</i> × <i>maximowiczii</i>) wood”. <i>Wood Science and Technology</i>, 58, 441–458.</p> <p>Skręta A., Antczak A., 2024: „SEC analysis of the molar mass of lignin isolated from poplar (<i>Populus deltoides</i> × <i>maximowiczii</i>) and Scots pine (<i>Pinus sylvestris</i> L.) wood”. <i>Annals of Warsaw University of Life Sciences, Forestry and Wood Technology</i>, 125, 52-64.</p> <p>Antczak A., Dąbkowska-Suszał K., Walkowiak M., Witczak M., Szadkowski J., Cichy W., Radomski A., Zawadzki J., 2023: „The influence of selected physico-chemical pretreatment methods on chemical composition and enzymatic hydrolysis yield of fast-growing poplar wood and corn stover”. <i>Drewno</i>, 66(211), 1-13.</p> <p>Antczak A., Szadkowski J., Szadkowska D., Zawadzki J., 2022: „Assessment of the effectiveness of liquid hot water and steam explosion pretreatments of fast-growing poplar (<i>Populus trichocarpa</i>) wood”. <i>Wood Science and Technology</i>, 56, 87-109.</p> <p>Gliszczynski T., Antczak A., 2022: „The study of selected properties of pine wood (<i>Pinus sylvestris</i> L.) subjected to acetylation”. <i>Annals of Warsaw University of Life Sciences, Forestry and Wood Technology</i>, 117, 5-13.</p>
Experience in work with doctoral	Akus-Szylberg F. "The study of the impact of selected pre-

students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	<p>treatment methods on the chemical composition and efficiency of enzymatic hydrolysis of poplar wood and corn stover", Institute of Wood Sciences and Furniture, Warsaw University of Life Sciences, defended doctoral dissertation on April 28, 2022.</p> <p>Marchwicka M. "The influence of selected methods of poplar wood processing on the efficiency of enzymatic hydrolysis", Institute of Wood Sciences and Furniture, Warsaw University of Life Sciences, defended doctoral dissertation on November 27, 2020.</p>
Achievements in the area of projects/grants (in the last 5 years)	<p>Research project financed by the National Science Centre "Spectroscopic methods for rapid phenotyping of trees reflecting their ecological resilience" DendroSpec, UMO-2021/43/I/NZ9/02809 – researcher – 2022/2025</p> <p>Research project of the National Centre for Research and Development "Technologies of using agricultural by-products" PASZA PRO, POIR.01.01.01-00-0224/19-00 – researcher – 2019/2023</p>
Subject area of the research project for which the candidate student is being recruited	<p><u>Topics to choose from:</u></p> <ol style="list-style-type: none"> <li>1. Study of pretreatment, hydrolysis and fermentation processes towards the production of bioethanol from lignocellulosic biomass.</li> <li>2. Study of the impact of selected pretreatment methods on the chemical composition of lignocellulosic biomass and the physico-chemical properties of the obtained lignin.</li> <li>3. Study of the impact of selected chemical modification methods on the physico-chemical properties of wood (density, colour, hardness, dimensional stability, chemical composition).</li> </ol>
<p><u>Contact details:</u></p> <p>Institute</p> <p>E-mail address</p> <p>Telephone number</p>	<p>Institute of Wood Sciences and Furniture</p> <p>andrzej_antczak@sggw.edu.pl</p> <p>+48 22 59 386 49</p>