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At Eye Level with the Academic "High Nobility" - Two LIKAT Chemists Travel to the Nobel Laureate Meeting

At the end of June, the time has come again: Almost three dozen Nobel laureates will meet in Lindau on Lake Constance for their traditional conference. It is the 71st meeting, this time focusing on chemistry, and two young chemists from the Rostock Leibniz Institute for Catalysis, LIKAT, are also invited: Thea Mayer and Aija Gudkova.

With the two, around 600 young researchers from all over the world will meet their scientific idols to learn about current knowledge at first hand and, of course, some advice for their own academic career. Prerequisites for participation are "outstanding scientific achievements and at least one letter of recommendation," according to the Lindau Nobel Laureate Meetings website.



Aija Gudkova (left) Master's student, and Thea Mayer, PhD student at LIKAT, are invited to the 2022 Nobel Laureate Meeting.

Photocatalytic Wastewater Treatment

Thea Mayer is currently working on her doctorate in the department of LIKAT Director Prof. Dr. Matthias Beller and in the junior research group of Dr. Jola Pospech. There, for example, she is researching a reaction that can be used to remove drug residues from wastewater, using catalysts whose activity is controlled by light. "The idea is to remove carboxylic acid groups, which are mainly found in painkillers," the researcher explains. This reaction is called decarboxylation. Thea Mayer is currently testing it on a variety of substrates that are usually found in wastewater.

Prof. Dr. Troels Skrydstrup at Aarhus University, from whom one of the letters of recommendation originated, appreciates Thea Mayer as an "extremely focused experimenter with an immense knowledge of synthetic organic chemistry in general." Mayer's findings from this research internship in Aarhus resulted in a publication for *ORGANIC LETTERS*, a prestigious journal of the American Chemical Society.

More Sustainability Using Electrochemistry

Aija Gudkova is working on her master's thesis in the department of Prof. Dr. Robert Francke. Electrochemistry is currently experiencing a strong influx from research teams worldwide. According to Aija Gudkova, "This field, in particular, is where concepts for sustainable chemistry can be realized." Currently, she is researching electrocatalytic alcohol oxidation. Alcohol oxidation produces acids and aldehydes, basic materials for chemistry. Usually, this requires oxidizing agents, which are expensive and sometimes toxic. "But if I apply an electrical voltage in the reaction vessel, I can do without these reagents," the student explains.

Prof. Francke has found Aija Gudkova to be "an exceptionally talented young chemist" in several courses at the University of Rostock, as he states in his letter of recommendation. He appreciates in her, among other things, "a quick grasp, great determination and a strong enthusiasm for science." With her own investigations, Aija Gudkova has already been able to contribute to an ongoing research project at the institute and secure co-authorship for a paper in the renowned journal CHEMELECTROCHEM.

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