



Efficient water splitting via a flexible solar-powered Hybrid thermochemical-Sulphur dioxide depolarized Electrolysis Cycle

[www.hyselect.eu](http://www.hyselect.eu)

Research Stay at Aalto University, Finland

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From the 11th of December to 15th of December 2023, HySelect's project partners Grillo and DLR were hosted at the Aalto University in Finland in the framework of a research stay within the HySelect project.

During this stay, the invited project partners were informed about the activities of the research group of Assist. Prof. Santasalo-Aarnio regarding the Sulphur Dioxide Depolarized Electrolysis (SDE). The electrochemical aspects of SDE were discussed and completed with a laboratory training session involving the cell assembly and disassembly procedures. Additional training was given on bichromatometry as an analytical method for determining the SO<sub>2</sub> content in acidic solutions, such as those handled by SDE.

The project partners Grillo and DLR also had the opportunity to observe the cell stack in operation, after performing a full electrochemical characterization. They were able to familiarise themselves with the operation of both the potentiostat and the electrochemical set-up equipment, and to identify any problems that might affect the proper operation of SDE. Bichromatometry could also be performed on samples taken from the actual setup. Of particular interest were the procedure for shutting down the setup, its cleaning steps, disassembly and parts storage protocols.

In parallel to the experimental training, technical meetings were held where valuable discussions on the topic of SDE were held with both Assist. Prof. Santasalo-Aarnio and Prof. Gasik.