

Project: Electrochemical measurements on Photosystem I deposited on inorganic substrates

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Period of STMS (begin- and end date): 2014-09-14 to 2014-09-27

Host institution (address): Vrije Universiteit, Amsterdam, The Netherlands

Mentor(s) (name and contact data): Dr Krzysztof Gibasiewicz, krzyszgi@amu.edu.pl;
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Aims & subject of work (480 characters, no spaces; Calibri 12):

The aim of the STSM project was to deepen the knowledge about interaction between Photosystem I (PSI) and inorganic substrates, through series of electrochemical measurements. It was planned to check PSI purified from different organisms (cyanobacteria, algae) and using different substrates as a working electrode.

Argumentation of necessity of STSM (100 characters, no spaces; Calibri 12):

Vast experience of the host's workgroup in the field of electrochemistry and which was critical.

Workplan/timeschedule followed (4 bullets max., Calibri 12):

- to test several methods of deposition of Photosystem I proteins onto the various substrates
- to get acquainted with devices for photocurrent measurements present at host laboratory
- to conduct preliminary electrochemical measurements
- to conduct measurements of Photosystem I proteins deposited on the substrates

Main results and outcome (conclusions):

PSI deposited onto various substrates is able to generate photocurrent. Measurements performed on sole substrates with the addition of electrolytes demonstrate, that there is no photocurrent response without PSI complexes. Visit in the host laboratory was also chance to get acquainted with many devices related to electrochemical and photocurrent measurements.