

# Project: Title

**Grantee:** Braun, Artur

Affiliation + contact data: Laboratory for High Performance Ceramics

Empa. Swiss Federal Laboratories for Materials Science and Technology

Überlandstrasse 129, CH - 8600 Dübendorf, Switzerland

# **Period of STMS** (14-6-2015 – 21-6-2015):

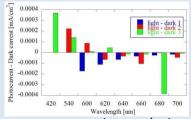
Host institution: Molecular and Cellular Biology - Unit of Microbiology

Institute for Environment, Health and Safety (EHS)

Belgian Nuclear Research Centre SCK • CEN

Boeretang 200, B-2400-MOL, Belgium

Mentor: Janssen, Paul



### Aims & subject of work (480 characters, no spaces; Calibri 12):

Algal biofilms were grown on iron oxide photoelectrodes and subject to photoelectrochemical quantum yield measurement prior to, during and after irradiation with  $Co^{60} \gamma$  -radiation.

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

Mol has the necessary facility for  $\gamma$ -irradiation and biofilm growth, Empa has the expertise in making bio-hybrid photoelectrodes.

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

- May/June 2015 Empa & eawag prepared photoelectrodes; SCK CEN prepared biofilms
- 15-19 June 2015 Co<sup>60</sup> γ -irradiation biophotoelectrochemistry campaign at SCK

  CEN
- 17 30 2015 data analyses
- 19 June 2015 oral presentation at SCK●CEN, 8 October 2015 oral presentation at COST Meeting in Rome

## Main results and outcome (conclusions):

From far view it appears that exposed to γ-radiation, the negative current of algal biofilm hybrid-photoelectrodes become more pronounced at the higher wavelengths. This warrants further investigation with advanced planning of new experiment campaigns.