



Seminarankündigung

**Dienstag, 8. Dezember 2015
17:15 Uhr**

WSI, Seminarraum S 101

“Towards viable artificial photosynthetic devices”

For the fabrication of an integrated monolithic device able to perform autonomous water splitting, different components should be interfaced together in an orchestrated manner. Photoelectrodes need to absorb in the visible range, with a valence and a conduction band suited for this reaction. Moreover, the multielectron – proton coupled processes involved in the semi-reduction and semi-oxidation reactions necessitate the presence of catalysts that manage the intrinsic hurdle of artificial photosynthesis. Herein, we address the study of the major challenges, namely performance, stability, and interfaces with catalyst and electrolytes, to enable implementation of lower band gap materials in water splitting devices.

**Dr. Francesca Maria Toma
Joint Center for Artificial Photosynthesis
Lawrence Berkeley National Laboratory
Berkeley, USA**