Abstract zum Gastvortrag von Herrn PD Dr. Falk Harnisch am 22.01.2018

mit dem Titel:

„Electrodes as habitats for microorganisms: From fundamentals to applications“

Microbial electrochemistry is the study and application of interactions between microbial cells and electron conductors (i.e. electrodes). The first studies in microbial electrochemistry date back more than 100 years, but vital, worldwide and ever increasing interest has only set in by the turn of the millennium. During the last decade microbial electrochemistry has been a fascinating playground for fundamental research and is now striving to become an esteemed field of technologies. These technologies - being summarized under the umbrella of microbial electrochemical technologies (METs) - range from its archetype the microbial fuel cell (MFC), which is turning wastewater into electric energy, via microbial electrochemical sensors to microbial electrochemical production of chemicals. Thereby microorganism-electrode interactions are in the center of for all MET technologies.
Followed by an introduction into microbial electrochemistry and METs, this talk will highlight selected studies on electroactive microorganisms ranging from single molecules via cells to biofilms. Special emphasize will be given to the electrode as habitat, i.e. as an area for the living of electroactive microorganisms, the environment it provides and the ecological interaction taking place there, and its engineering.

Website: http://www.ufz.de/index.php?de=31005