

EuroTech Seminar

Engineering Cells, Membranes and Super-Complexes in Bio-Photoelectrochemical Cells



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15:00-16:00 CET

Zoom link:

<https://us02web.zoom.us/j/85946790723>

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Intact photosynthetic organisms (plants, seaweeds, green algae and cyanobacteria), isolated membranes, isolated photosynthetic complexes and hybrid biological/ synthetic conjugates (conductive polymers or Au nanoparticles) are attractive starting materials for solar energy conversion (SEC). Our overall goal is to develop methods to perform SEC using these materials in simple, inexpensive and in a fashion that will be non-polluting and will not compete with the growth of foods. I will describe here how the remarkable photocatalytic activity of the photosynthetic apparatus can provide overall water splitting with significant harvested current and hydrogen production in Bio-Photo-Electro-Chemical (BPEC) cells via the simplest and cleanest of processes.