

Solar hydrogen generation: perspectives and research opportunities

19-20th January 2017

Photocatalytic and photoelectrochemical water splitting enable the direct use of sunlight to generate hydrogen in an environmentally friendly way, and can contribute significantly to the transition to a renewable energy economy.

However, in order to realize the large scale practical application of these technologies, advances are still required on several fronts, from materials optimization to low-cost electrode manufacture and reactor design.

We have invited to Hamburg a group of experienced researchers in the field, to present their views on the current state and expected future developments in several areas: from basic principles, to materials, systems, and advanced characterization methods.

The workshop is open to all interested students and researchers.

- To register, go to: www.hzg.de/h2workshop17
- Registration is open until **31st December 2016**.
- The number of participants is limited to 45.

Contact: h2workshop17@hzg.de

The workshop at a glance, January 19-20th 2017

Thursday, January 19th (HSU)		Friday, January 20th (HZG)
08:30	Registration	
08:50	Welcoming remarks	
09:00	<i>Advanced photoelectrochemical cells for water splitting - Materials science challenges and improved device structures</i> Wolfram JÄGERMANN	<i>Electronic structure and photocarrier dynamics in metal oxide photoelectrodes</i> – Ian SHARP
09:50	<i>Water splitting photocatalysis with inorganic particles</i> – Frank OSTERLOH	<i>Characterization of photocatalysts by surface photovoltage techniques</i> – Thomas DITTRICH
10:40	Coffee break	Coffee break
11:00	<i>TiO₂ Photocatalysis</i> Detlef BAHNEMANN	<i>X-ray characterization of electrochemical systems</i> Artur BRAUN
11:50	<i>Hydrogen technology at HZG + HSU</i> Thomas KLASSEN	<i>Research perspectives in water splitting materials</i> Roel VAN DE KROL
12:45	Lunch	Lunch
13:30	Visit of HSU laboratories	Visit of HZG Laboratories
15:00	Coffee break	Coffee break + <i>Concluding remarks</i>
15:30	<i>Size and shape effects in catalysts for CO₂ reduction</i> – Beatriz ROLDÁN CUENYA	
16:20	<i>Modelling and simulation of water splitting devices</i> – Sophia HAUSSENER	
20:30	Formal Dinner	