

US-German workshop series on artificial photosynthesis

07. December 2021, 17:00-19:00 CET | 8-10 a.m. PST | 11 a.m.-1 p.m. EST

gather.town

Chairs: Prof. Jillian Dempsey (University of North Carolina), Prof. Thomas Hannappel (Technical University of Ilmenau)

#	TITLE / AUTHOR (INSTITUTION)
1	Understanding and Controlling the Performance Limiting Steps of Catalyst Modified Semiconductors Nghii P. Nguyen (Arizona State University)
2	Six Electron Chemistry of a Binuclear Fe(III) Fused Porphyrin Edgar A. Reyes Cruz (Arizona State University)
3	Epitaxy of III-V semiconductors relevant for photoelectrochemical cells David Ostheimer (Ilmenau University of Technology)
4	Control over buried GaP/Si(100) heterointerface for low-defect III-V-on-Si PEC tandem cells Manali Nandy (Ilmenau University of Technology)
5	Charge Transfer at the TiO ₂ /InP(100) Heterointerface Jonathan Diederich (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH)
6	CO ₂ Reduction Activity of Bioinspired Cobalt-Porphyrin Catalysts in Water Alison A. Salamatian (University of Rochester)
7	Increasing Ligand Denticity for Water Oxidation Catalysts using P(V) as Connecting Element Leads to a More Stable Catalyst Douglas B. Grotjahn (San Diego State University)
8	An Active-Site Sulfonate Group Creates a Fast Water Oxidation Electrocatalyst That Exhibits High Activity in Acid Colton J. Breyer (San Diego State University)

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- 9 **Pathways to Meeting the US DOE Clean Hydrogen Energy Earthshot and Curbing Global Warming**
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- Zejie Chen (University of California, Irvine)
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- 10 **Parallels between enzyme catalysis, electrocatalysis, and semiconductor photoelectrosynthesis**
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- Daiki Nishiori (Arizona State University)
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- 11 **Characterizing the influence of ion concentrations and electric fields on proton transfer events in aqueous microenvironments**
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- Cassidy N. Feltenberger, Jennifer Urbine (University of California, Irvine)
-
- 12 **CsPbBr₃-CdS heterostructure: stabilizing perovskite nanocrystals for photocatalysis**
-
- Anthony Kipkorir (University of Notre Dame)
-
- 13 **Pivotal Role of Holes in Photocatalytic CO₂ Reduction on TiO₂**
-
- Nikolaos Moustakas (Leibniz-Institute for Catalysis)
-
- 14 **Quantitative model of ruthenium chromophore charge injection kinetics**
-
- Thomas P. Cheshire (Lawrence Berkeley National Laboratory)
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- 15 **Metal Organic Framework (MOF) Artificial Photosynthetic Chemistry**
-
- Amanda J. Morris (Virginia Tech – College of Science)
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- 16 **Hot Carrier Cooling in Quantum Dots via a Cascade of Conical Intersections**
-
- Caitlin V. Hetherington and Benjamin G. Levine (Stony Brook University)
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- 17 **An approach to obtain real photovoltage of semiconductor as the water splitting driving force**
-
- Frank Osterloh (University of California, Davis)
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- 18 **Photoelectrochemical CO₂ conversion: influence of the semiconductor**
-
- Matthew Mayer (Helmholtz-Zentrum)
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- 19 **Structural Dynamics in Metastable Ternary Nitrides for Solar Energy Conversion**
-
- Franziska Hegner (Technical University Munich)
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20 Towards spatiotemporal measurements of charge, heat and ion transport for photoelectrochemistry

James Utterback (University of California, Berkeley)

21 Tracking electronic-structural dynamics in solar energy materials using transient extreme ultraviolet spectroscopy

Jonathan Michelsen (California Institute of Technology)

22 Cascade PEC with Three Terminal Tandem PEC Devices

Calton Kong (University of California, Berkeley)

Further posters are in the evaluation phase and will be added soon.