

## 7<sup>th</sup> Energy Colloquium of the Munich School of Engineering

# Highlights in Energy Research

July 13, 2017 – 8:30 a.m. to 8:00 p.m.

TUM – Center for Energy and Information (ZEI), Garching

**8:30 – 9:00 a.m.**

Registration

**9:00 – 9:15 a.m.**

Opening

Prof. Thomas Hamacher, Director Munich School of Engineering

**9:15 – 9:45 a.m.**

**Keynote: “The Energiewende, a show case for technical and policy innovation and what other countries can learn from Germany”**

Dr. Fabian Joas, Agora Energiewende

**9:45 – 11:00 a.m.**

Session

Session Chair: Dr. Markus Becherer

**Second Generation CO<sub>2</sub> Methanation Catalysts**

Thomas Burger, Chair of Chemical Technology I

**Modeling Occupational Disorder in Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub> Battery**

**Materials: Intrinsic Complexity and its Effect on Ion Mobility**

Hendrik Heenen, Chair of Theoretical Chemistry

**Perovskite: The New Crystalline Sheriff in the Photovoltaic County**

Shambhavi Pratap, Functional Materials

**11:00 – 11:45 a.m.**

Poster Presentation, Coffee Break

**11:45 – 1:00 p.m.**

Session

Session Chair: Prof. Hartmut Spliethoff

**Simulation and Optimization of Open Algae Ponds**

Andreas Rarrek, Chair of Plant and Process Technology

**The Hybrid Transmission Grid Architecture: A Topology-Preserving Capacity Expansion Strategy**

Matthias Hotz, Associate Professorship of Signal Processing

**High Pressure Evaporation Rig for the Investigation of Stationary and Transient Heat Transfer Phenomena**

Tobias Gschnaidtner, Energy Valley Bavaria

**1:00 – 2:30 p.m.**

Poster Presentation, Lunch Break

**2:30 – 4:10 p.m.**

Session

Session Chair: Prof. Gunther Friedl

**Synergistic Value of Hybrid Energy Systems: Renewable Power and Hydrogen Production**

Gunther Glenk, Chair of Management Accounting

**Mine or Ours? Willingness to Pay for Innovative Battery Storage Concepts**

Bernhard Kalkbrenner,

Chair of Marketing and Consumer Research

**With Innovative Highlights Towards a Sustainable TUM Campus**

Benedikt Schweiger, Chair of Energy Systems

**Nearly Zero Energy Laboratory Buildings?**

Michael Keltsch, Institute of Energy Efficient and Sustainable Design and Building

**4:10 – 4:40 p.m.**

Poster Presentation, Coffee Break

**4:40 – 5:10 p.m.**

MSE-Research

**Geothermie-Allianz Bayern – Scientists United for Geothermal Energy**

Dr. Katharina Aubele, Munich School of Engineering

**5:10 – 5:40 p.m.**

**Keynote: “TUM Startup Li.plus - Battery diagnostics - fast. precise. simple.”**

Christian Huber, Li.plus

**5:40 – 5:55 p.m.**

Summary, Closing

**5:55 – 8:00 p.m.**

Poster and Presentation Award, Colloquium Dinner

**Registration:**

<http://www.mse.tum.de>