



# “Research towards innovative energy systems and materials”

04.07.2013 – 8.30 am to 9.00 pm

8.30 - 9.00 am  
**Registration**

9.00 - 9.15 am  
**Opening**  
Thomas Hamacher, Director Munich School of Engineering

9.15 - 9.45 am  
**Keynote: Shale Gas Revolution**  
Olaf Martins, ExxonMobil

9.45 - 11.00 am  
**Session Chair: Hartmut Spliethoff, CPG MSE**

**Flexible Power and Synthesis Plant Concepts with Integrated Chemical Power Storage**  
Alexander Buttler, Institute for Energy Systems

**Explosive Combustion of Stratified Hydrogen-Air Mixtures – Experimental Observations and Conclusions for Safety Applications**  
Lorenz Böck, Chair for Thermodynamics

**Table-top Electron-beam Induced Plasma Chemistry**  
Andreas Himpsl, Chair for Experimental Physics

11.00 - 11.45 am  
**Poster Presentation, Coffee Break**

11.45 - 1.00 pm  
**Session Chair: Werner Lang, ZNB MSE**

**Processes for the Gasification of Biomass and Current Developments**  
Markus Ulbrich, Chair for Energy Systems

**Smart Grid Simulation**  
Christoph Doblander, Chair for Application and Middleware Systems

**Heat Consumption Analysis on a City Scale**  
Peter Böhme, Institute for Energy Economics and Application Technologies

1.00 - 2.30 pm  
**Poster Presentation, Lunch Break**

**Location:**  
TUM – Institute for Advanced Study, Garching

2.30 - 3.45 pm  
**Session Chair: Peter Müller-Buschbaum, NRG MSE**

**Large-Scale Spray Deposition of Functional Materials for Photovoltaics**  
Alaa Abdellah, Institute for Nanoelectronics

**Alternative Supports for Applications in Electrocatalysis: Ethanol Oxidation on Pt/TiOxCy**  
Celine Rüdiger, Institute of Advanced Study

**Highly Conductive PEDOT:PSS as Electrode for Flexible Structured ITO-free Organic Electronics**  
Claudia M. Palumbiny, Chair of Functional Materials

3.45 - 4.30 pm  
**Poster Presentation, Coffee Break**

4.30 - 5.45 pm  
**Session Chair: Markus Lienkamp, WZE MSE**

**Greenhouse Gas Emissions from Induced Impacts in the Built Environment**  
John E. Anderson, Institute for Energy Efficient Building and Design

**A Need- and Willingness-based Approach for Online Electric Vehicle Charging Control**  
Victor del Razo, Chair for Application and Middleware Systems

**Power Systems Research – Why we Should Cooperate**  
Herbert Mangesius, Institute for Information-Oriented Control;  
Matthias Huber, Institute for Energy Economics and Application Technologies

5.45 - 6.00 pm  
**Summary of the Day**

6.00 - 6.45 pm  
**Keynote: Climate Science - What Do We Know About Past, Current and Future Climate Change?**  
Janina Körper, Freie Universität Berlin

6.45 - 9.00 pm  
**Poster and Presentation Award, Colloquium Dinner**

**Registration:**  
<http://www.mse.tum.de> free for TUM-Members