



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA



Technische Universität München

**The
University of Queensland –
Technische Universität München –
Research Symposium on
Water, Environment and
Sustainability
Munich, June 11th and 12th, 2015**

**Vorhoelzer Forum
Technische Universität München**
Arcisstraße 21
D-80333 München
Germany

Program

Day 1 (11th of June) – Environment & Biomass Supply	
	Formal Opening Address
09:00	Prof. Klaus Diepold, TUM Senior Vice-President Prof. Monique Skidmore, UQ Vice-President and Deputy Vice-Chancellor (Int.)
	Session1 – Water as Environmental Resource (Session Chairs: N. Bergmann, J.Geist)
09:30	Prof. Jürgen Geist, TUM, School of Life Sciences Weihenstephan Challenges in Water Management in the 21st Century
10:00	Dr. Joshua Larsen, UQ, School of Geography, Planning and Env. Management Quantifying the Challenge of Changes in Vegetation and Climate on Global Water Resources
10:30	Coffee Break
11:00	Prof. Annette Menzel, TUM, School of Life Sciences Weihenstephan Ecosystem Drought Responses - From Wood Anatomy to Hemispheric Scale
11:30	Prof. Markus Disse, TUM, Dep. of Civil, Geo and Environmental Engineering Sustainable Land and Water Management of River Oases Along the Tarim River in North-West China
12:00	Prof. Neil Bergmann, School of IT and Electrical Engineering Low Cost Wireless Sensor Networks for Environmental Monitoring of Water Resources
12:30	Lunch
13:30	Dipl.-Ing. Birgit Lewandowski, Inocre Biological Degradation of Aircraft and Runway De-icers: A Contribution to Sustainable Water Management at Airports
14:00	Craig Froom, UQ Global Change Institute The Nexus between Water & Energy for Small Island States/Remote Communities
14:30	Session of Selected Poster Talks/Short Talks – Details below
15:30	Coffee Break
	Session 2 - Biomass Production (Session Chairs: M. Rychlik, P. Schenk)
16:00	Prof. Peer Schenk, UQ, School of Agriculture and Food Sciences & QUAAFI Microalgae for Food, Feed and Fuel
16:30	Prof. Thomas Brück, TUM, Dep. of Chemistry Algae Based Biokerosene - Scaling a Climate Centered Strategy for Production and Conversion of Halophile Algae Biomass from Laboratory to Pilot Plant Stage
17:00	Dr. Michael Netzel, UQ, Centre for Nutrition and Food Sciences & QUAAFI Agricultural Production – The Nutritional Quality of Biofortified Producer
17:30	Prof. Michael Rychlik, TUM, School of Life Sciences Weihenstephan Analysis of Bioactive Food Compounds in Plants Grown in Australia

Day 2 (12th of June) – Processes for Sustainability	
	Funding Issue
09:00	Dr. Alice Becker (TUM ForTe): TUM ForTe - Support for Research and Industry Cooperation at TUM
09:30	Session 3 - Biomass Based Chemicals, Material & Fuels (Session Chairs: W. Liebl, G. Schenk) Dr. Anthony Halog, UQ, School of Geography, Planning, and Env. Management Strategies for Pursuing a Sustainable Bioeconomy in Australia
10:00	Dr. Georg Schirmmacher, Clariant Produkte (Deutschland) GmbH Second Generation Biofuel
10:30	Coffee Break
11:00	Prof. Johannes Lercher, TUM, Dep. of Chemistry Drop-in Fuels From Biomass Via Concerted Catalysis
11:30	Prof. Gary Schenk, UQ, School of Chemistry and Molecular Biosciences The Biotechnological Scope of Metalloenzymes: From Biofuel Production to Bioremediation
12:00	Prof. Volker Sieber, TUM, School of Life Sciences Weihenstephan & Straubing Center of Science Synthetic Enzyme Cascades for Converting Carbohydrates into Chemicals
12:30	Lunch
14:00	Prof. Wolfgang Liebl, TUM, School of Life Sciences Weihenstephan Tapping Microbial Biodiversity for New Enzymes and Butanol Production
14:30	Dr. Bronwyn Laycock, UQ, School of Chemical Engineering Biomass Utilization in Biopolymer, Nano-Composite and Carbon Fiber Production
	Session 4 - Electricity and Water (Session Chairs: J. Drewes, J. Kroemer)
15:00	Prof. Paul Bernhardt, UQ, School of Chemistry and Molecular Biosciences Direct and Indirect Approaches to Enzyme Electrochemistry: From Biosensors to Fine Chemicals
15:30	Coffee Break
16:00	Dr. Lenard Csepei, Fraunhofer IGB, Straubing Branch, Bio-, Electro-and Chemocatalysis BioCat, Combining CO₂ and Regenerative Energy
16:30	Dr. Jens Kroemer, UQ, Advanced Water Management Centre Metabolic Engineering of Microbial Electro-fermentation for the Production of Chemicals from Biomass
17:00	Prof. Jörg Drewes, TUM, Dep. of Civil, Geo and Environmental Engineering Potable Water Reuse - Towards an Energy-neutral Treatment Scheme
17:30	Dr. Liu Ye, UQ School of Chemical Engineering Energy and Protein Recovery from Waste Biomass in Urban Waste Water Treatment Process

Session of Selected Poster Talks/Short Talks – Details

Yifeng Xu, UQ, Advanced Water Management Centre

Amanda Binks, UQ, School of Chemical Engineering

Water-related Energy Use in Urban Households – Quantifying Connections & Understanding Drivers

Prof. Philipp Benz, TUM, Wood Processes

Rationalizing Fungal Bioengineering by a Systems Analysis of Plant Biomass Perception

Wolfgang Mischko, TUM, Department of Chemistry

Sustainable Production of Novel Bio-Insecticides

Patrick Löchelt, Unternehmer TUM, Primotus

Moving Frontiers with Premium Biomass

Fatemeh Shajari, TUM, School of Forest Science and Resource Management

Reconstruction of Paleovegetation by Analysing Wax Leaf

Prof. Renzo Akkerman, TUM, School of Management

Integrating Water Reuse in Operations Management Approaches for the Food and Bioprocessing Industries

Dr. Fabian Steffler, Fraunhofer IGB, Straubing Branch, Bio-, Electro-and Chemocatalysis BioCat

Application of Different Catalytic Processes for Generation of Chemical Energy Storage

Jason Hartmann, TUM, School of Life Sciences Weihenstephan

Listen to the Clams: Detecting Environmental Pollution Using Behavioural Responses of Mussels;