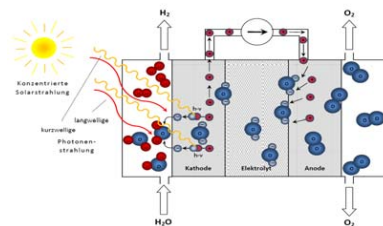
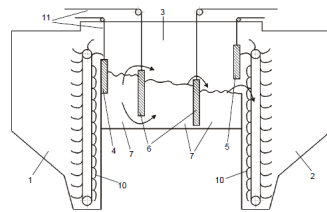
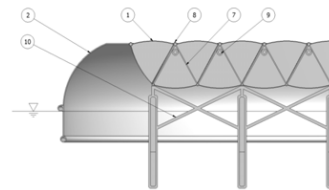
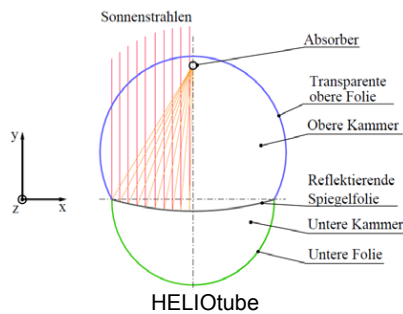


# Solar Energy and Energy Storage

## Research at TU Wien

Univ. Prof. DI. Dr. Markus Haider



SandTES

SOPEC

The presentation will give an overview of four current research projects at the Institute of Energy Systems and Thermodynamics (IET). They are linked by the objective of exploiting and storing solar energy.

**Pneumatic Pre-stressed Concentrators** for Solar Thermal Electricity (STE) have been developed jointly by IET and Heliovis AG. A prototype unit is currently being commissioned at an Austrian coal power plant.

**Offshore Solar Systems** are a vision for large scale power generation. The presentation will outline the basic ideas and concepts as well as the associated research issues.

**Sand based High Temperature Energy Storage** has potential applications in STE and in adiabatic compressed air energy storage. The fluidized bed based technology is being developed in cooperation with ENRAG GmbH.

**Solid Oxide Photo-Electrochemical Cells** are a promising new approach for direct hydrogen production from solar energy.