

# MAINZ Summerschool 'Energy' in Patras, Greece (01.06.-08.06.2008)



**Patras (Πάτρα)** is Greece's fourth largest city and located in northern Peloponnese, 215 kilometers west of Athens. The city is built at the foothills of Mount Panachaikon, overlooking the Gulf of Patras, and is linked to the city Antirio by the Rio-Antirio bridge that connects the Peloponnese peninsula with mainland Greece. The Patras 'Institute of Chemical Engineering and High Temperature Chemical Processes' (ICE-HT) of the 'Foundation for Research and Technology Hellas' (FORTH) hosted the MAINZ summerschool in its building, overlooking the beautiful scenery.

After a kind welcome to Patras and short introductions about the University of Patras and the FORTH/ICE-HT Institute by V. Anastassopoulos and G. Voyiatzis, W.Meyer (MPI-P, Mainz) gave an overview about 'Energy Sources, Conversion and Storage', followed with an introduction to 'Fuel Cells' by G. Scherer (Paul Scherrer Institute, Villingen, Switzerland).



Our Greek lunch buffet was nicely arranged outside the building and gave the chance to enjoy the sunny weather during the breaks. In the second session S. Neophytides and J. Kallitsis (FORTH/ICE-HT) reported on 'Proton Conduction in Materials' before the day was finished with a poster session together with students from Patras in the Achaia Beach Hotel. The next day introduced us to 'Li-Ion Batteries' by M. Wohlfahrt-Mehrens (Center for Solar and Hydrogen Research, Ulm), their 'Design and Usage' by J.Tübke (Fraunhofer Institute for Chemical Technology, Pfinztal) and a talk about 'Polymer Electrolytes' by W. Meyer. On Wednesday H. Hoppe (Technical University Ilmenau) reported on 'Photovoltaics' and 'Polymer Fulleren Solar Cells', J. Kallitsis on 'Photovoltaics with Polymers and Hybrids' and F. Laquai (University of Cambridge, UK) ended with 'Conjugated Polymers'.



Together with cheerful students from Patras we afterwards celebrated a Greek Eve with barbecue, typical music, Greek liqueur and jolly dancing till late.

R. Kötz (Paul Scherrer Institute, Villingen, Switzerland) and G. Gutmann (Consultant for Electrochemical Energy Storage and Conversion, Esslingen) reported the next morning about 'SuperCaps' and their 'Applications' and G.Scherer continued on 'Fuel Cells'.

The last session on Friday was about 'Hydrogen Technology' (B.Panella, ETH-Zürich), the 'Production' (X. Verykios, University of Patras) and 'Storage' and 'Worldwide Energy Challenges' (M. Enayetullah, ADVENT Technologies SA, Patras) before we finished with an excursion to the 'Hydrogen Technology / Science Park'.

A visit to Delphi Oracle on Saturday and enough leisure time during the evenings ensured an overall good mood and 'social networking' between the students.