39th IUVSTA Workshop (Surface Science Division)
"Ultrafast Surface Dynamics"
Telluride, Colorado (Telluride Summer Research Center)
June 22-27, 2003

The 39th IUVSTA Workshop on the Ultrafast Surface Dynamics was held at the Telluride Summer Research Center on June 22-27, 2003. The International Organizing Committee consisting of Hrvoje Petek (USA), Xiaoyang Zhu (USA), Pedro Echenique (Spain) and Maki Kawai (Japan) brought together a total of 51 participants 16 of whom were from Europe, 10 from Japan, and 25 from the USA. The focus of the conference was on the dynamics of elementary excitations, mainly electrons and phonons, at or near metal and semiconductor interfaces. In particular, we explored the relaxation processes of the intrinsic electronic excitations at essentially perfect surfaces, as well as surfaces that have been modified by molecular or atomic adsorption under well-defined conditions.

The program consisted of eight sessions focusing on molecule-metal interfaces, single molecules and devices, molecular electronics, spins and plasmons, surface & bulk states, image states & dynamics, phonons & excitons, and femtosecond surface chemistry. Each session involved two to three invited talks and as many contributed talks. There was significant time left for discussion after the talks and during the breaks to provide the opportunity for questions and informal exchange of information. In addition, there was a poster session to provide an opportunity for graduate students and postdocs to present their latest research. The best poster award was won by Dr. Niko Pontius of the University of Pittsburgh for his PhD research at the Forschungszentrum Jülich GmbH.

The organizers made an effort to foster interaction between researchers who are focused on the fundamental dynamical processes at interfaces and those that are exploring more complex phenomena, for instance, the conductivity through single molecules and ultrafast magnetism. These more complex phenomena can now be approached from the perspective of fundamental processes that can be explored by ultrafast laser techniques and ab initio theory. One of the goals of the organizers has been to bring these highly specialized groups of researchers together in order to broaden their perspectives.

In addition to the scientific sessions, in the spirit of IUVSTA Workshops, the organizers set aside significant time for informal discussion starting with the reception at the Telluride Mountain Lodge. The reception was held outside giving the participants a panoramic view of Sangre de Cristo Mountains. On Wednesday most of the day was reserved for an organized hike that took the participants into the mountains up to a waterfall, and afterwards the group split up into subgroups that either retraced their steps or went on further to conquer 4000 m high peaks. The hike was capped by a barbeque that was organized by the Telluride Science Research Center on a mesa outside of Telluride, with panoramic view of the mountains. Finally, on Thursday we had a formal banquet in one of the local restaurants in Telluride.

The workshop was deemed a great success and the International Steering Committee decided to organize another symposium on a related topic in three years in Japan.