

## ICNS-4 Illuminates Latest Research in GaN and Related Materials

The Fourth International Conference on Nitride Semiconductors (ICNS-4), sponsored by the Materials Research Society, the Institute of Electrical and Electronics Engineers, and the Electron Devices Society, was held in Denver, Colo., July 16-20. Jacques I. Pankove of Astralux Inc. in Boulder, Colo., chaired the organizing committee. The conference was kicked off by a brief welcome and an introduction to Denver by State Senator Pat Pascoe. Pankove then spoke briefly on the past decade of intense interest in the III-nitrides group of compounds and presented his vision that the III-nitrides group would one day solve the energy problem by shifting from fossil fuels (carbon) to more abundant and clean-burning hydrogen. He said, "This could be accomplished by photolysis of water using a III-nitride catalyst, for example, InGaN. Combustion could be explored by oxidation to form H<sub>2</sub>O in a fuel cell."

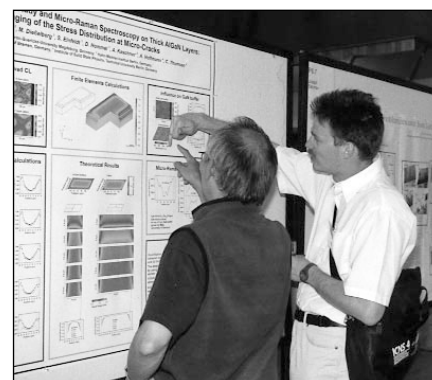
The final session, a plenary session with only invited talks, included a presentation by Werner Götz of LumiLeds Lighting in San Jose, Calif., on the problems in the development of light-emitting diodes (LEDs) and their solutions. This talk was not only profound, but also as spectacular as fireworks because the latest bright LEDs, from green traffic lights to extremely bright white LEDs, were displayed. All of these LEDs have high plug efficiencies and long life, both of which are important for power economy. The final punch was



Jacques I. Pankove (right) of Astralux Inc., chair of the ICNS-4 organizing committee, visits exhibitors.

the statement that early next year the brightness and efficiency will have further improved by a factor of 4. To be safe, attendees will need to wear sunglasses for the next demonstration.

Altogether, 580 attendees heard 151 presentations and viewed 292 posters. Of the oral presentations, 21 were invited and 130 were contributed. Proceedings are scheduled for publication in the November 2001 issue of *Physica Status Solidi*.



Attendees discuss nitride research during poster presentations at the Fourth International Conference on Nitride Semiconductors (ICNS-4) held in June in Denver, Colo.



Fernando Ponce of Arizona State University (second from left) co-managed the details of ICNS-4.

This busy schedule included two local cultural events: a Western barbecue and cowboy show including the use of rope and lasso to tame quadrupeds, and the conference dinner held in the new Denver Aquarium, where the attendees could stroll from buffet to buffet while watching various sea and river creatures in their transparent habitat. This exhibit included several varieties of sharks, friendly sea otters, horseshoe crabs, and a rare Sumatran tiger.

JACQUES I. PANKOVE  
Astralux Inc.

Chair, ICNS-4 Organizing Committee