

Gordon Research Conference addresses frontier of liquid crystal science

By Jim Maxwell

Scientists from around the world gathered at Colby-Sawyer College in New London, New Hampshire on June 19, 2005 for a week-long Gordon Research Conference on Liquid Crystals. In the summer of 1931, Professor Neil E. Gordon organized the first meeting of this type. His idea was to bring together scientists working at the frontier of a particular area of research to discuss all aspects of the most recent advances in the field to stimulate new directions for research. The meetings continue today with a variety of research topics, including liquid crystals. LCI Director, **Dr. Oleg D. Lavrentovich**, chair, organized the biennial **Gordon Research Conference** that was attended by 118 scientists in the fields of liquid crystals, physics, chemistry and biology research.

“This was one of the best Gordon Conferences I’ve attended,” Chemical Physics professor **Deng-Ke Yang** said. “The focus was clearly on lyotropic and biological systems. People from the biological field did an excellent job of explaining the importance of liquid crystals in their field. I think it is interesting to see the liquid crystals field expand into the area of biological systems. This conference was very informative for our Kent State researchers as the topics discussed are all areas we are looking to pursue in the future,” Yang said.



LCI attendees pose for a photo: (left to right) Mingxia Gu, Ivan Smalyukh, Bohdan Senyuk, Oleg Lavrentovich, Oleg Pishnyak and Ye Yin (Photo courtesy Mingxia Gu)

Several Kent State researchers attended this year’s event including **Gyanu R. Acharya, David W. Allender, Satyendra Kumar, Krishna P. Neupane, Sunil K. Sharma, Samuel Sprunt** and **David B. Wiant** of Physics, **Christopher J. Woolverton** of Biological Sciences, **Andrii B. Golovin, Mingxia Gu, Oleg Pishnyak, Ivan Smalyukh, Ye Yin, Bohdan Senyuk, Oleg Lavrentovich, Quan Li, Peter Palffy-Muhoray, Jonathan V. Selinger, Sergij V. Shiyanovskii** and **Deng-Ke Yang** of the Liquid Crystal Institute and Chemical Physics Interdisciplinary Program. Also, several LCI visiting scientists attended the event including **Maurice Kleman** (Universite Pierre-Et-Marie-Curie), **Lech Longa** (Jegellonian University) and **Victor M. Pergamenschik** (Ukranian Academy of Sciences).

This conference provided a forum for discussion of the ideas at the frontier of liquid crystal science and technology. Topics included chemical synthesis and physical properties of new liquid crystalline materials including low-molecular weight compounds, polymers and elastomers; lyotropic systems, including those of biological relevance; topological defects and patterns; liquid crystals as electro-optic, photonic, and sensing materials, composite systems with liquid crystalline and polymer components; modern trends in the development of liquid crystal devices.

CPIP Graduate Student **Ye Yin** enjoyed the conference for a multitude of reasons. “I thought it was very well organized with very good speakers who brought interesting topics that deserve even more investigation.” He thought it was great that the conference not only allowed the usual seminars, posters, etc., but also a half-day of group recreation with the other participants each day. “It was a great way to interact in a less formal, non-traditional setting,” he said.

The next Gordon Research Conference will take place in 2007, chaired by **Gregory P. Crawford** (Brown University), who received his PhD degree in Chemical Physics doing research at the Liquid Crystal Institute.