Rensselaer Physics Department Activities

JAN 2005 – MAR 2005
(Rensselaer Students are underlined)

HONORS AND AWARDS

M. SHUR

• Recently nominated as the new Regional Editor of physica status solidi.

X.-C. ZHANG

• Distinguished Visiting Scientist, Jet Propulsion Laboratory, California Institute of Technology, March 7 to May 1, 2005.

INVITED TALKS

G. CIOLEK

• “Magnetohydrodynamic Waves and Shocks in Dusty Interstellar Clouds”, Department of Astronomy, Boston University, March 15, 2005.

T.-M. LU


H. NEWBERG

E.F. SCHUBERT


G. -C. WANG

- “Shadowing Growth of Nanostructure and Their Properties”, The first international conference on one-dimensional nanomaterials held in Taipei, Taiwan. The conference was sponsored by American Vacuum Society, Air Force Office of Scientific Research/Asian Office of Aerospace Research and Development as well as local academic and industrial sponsors, January 12, 2005.

C. WETZEL


X.-C. ZHANG

MEETING ATTENDANCE

J.-Q. LU


H. NEWBERG


C. WETZEL


X.-C. ZHANG

- Coherent Executive Meeting with Dr. John Ambroseo, President; Mark Gitin, VP for Marketing; Luis Spinelli, CTO; Mike Colin, William White, Director of Engineering - Advanced System Business Unit; Eric Mueller, Murray Reed, VP for Research; Alan Fry, Director of Engineering - Advanced System Business Unit; Marco Arrigoni, Director of Marketing - Scientific Business Unit, San Jose, CA, January 6-7, 2005.

OTHER PROFESSIONAL TRAVEL

H. NEWBERG


X.-C. ZHANG

- Meeting with Intelligent Optical Systems (IOS), April 5, 2005.
PRESENTATIONS (presenter in bold)

J.-Q. LU


H. NEWBERG

• “SDSS Analysis on a Grid”, Rensselaer Polytechnic Institute, Troy, NY, March 1, 2005.

E.F. SCHUBERT


PAPERS PUBLISHED

T. KARABACAK and T.-M. LU


T. KARABACAK, T.-M. LU, and G.-C. WANG


J.-Q. LU


T.-M. LU

T.-M. LU and G.-C. WANG


H. NEWBERG


E.F. SCHUBERT


E.F. SCHUBERT, C. WETZEL, and I. YILMAZ


C. WETZEL

X.-C. ZHANG


PROPOSALS (SUBMITTED or GRANTED)

J.-Q. LU


T.-M. LU


T.-M. LU and G.-C. WANG


H. NEWBERG


G.-C. WANG

C. WETZEL


M. YAMAGUCHI


X.-C. ZHANG

- Proposal with DuPont, gift grant $10k. Committed.
- Proposal with DuPont, seed grant $25k. Submitted.
- Proposal with CCNY, matching grant $10k. Committed.

SIGNIFICANT RESULTS OBTAINED OR NEW RESEARCH AFFILIATES

E.F. SCHUBERT

- In collaboration with the research groups of T.-M. Lu and S. Lin, we have demonstrated a optically transparent thin-film material with a very low refractive index, namely < 1.10. The material consists of an array of SiO2 nanorods. This new material should be very useful for a wide range of optoelectronic and photonic applications.

VISITORS TO RENSSELAER

C. WETZEL

- Enrico Bellotti, Ph.D. Assistant Professor, Electrical & Computer Engineering Department, Boston University, possible collaboration on modeling of defects in GaInN, January 19, 2005.
- Dr. Chungen Zah and colleagues, Corning Corp, Corning NY, Exploration for collaboration, organized under Energy CAT, March 3, 2005.
- Pedro A. Encarnación, D. Ahmasi Harris, Graduate students in Appl. Phys. at University of Michigan-Ann Arbor, exploring postdoctoral opportunities.
M. YAMAGUCHI

- Prof. Toshirou Yagi, Research Institute for Electronic Science, Hokkaido University, Discussion of recent results in quantum fluctuations in coherent phonon excitations. Presentation at Physics Department condensed matter special seminar, “Soft-Mode Dynamics in the Isotopically Induced Ferroelectric Phase Transition of SrTi$_{18}$O$_3$”, February 10-12, 2005.
- Dr. Kenji Katayama, Department of Chemistry, Massachusetts Institute of Technology, discussion of the simulation of narrow band excitation of GHz-THz acoustic phonons, February 18-19, 2005.

X.-C. ZHANG

- Dr. Tao Yuan, DuPont Visited us on Feb. 12, 2005. THz research collaboration.
- Dr. Steve Modiano, and Dr. Jimmy Liu from Monsanto, THz research collaboration, February 15, 2005.

IMPORTANT ACTIVITIES OF STUDENTS

H. LUO


OTHER

T. KARABACAK and T.-M. LU


J.-Q. LU


E.F. SCHUBERT

I. YILMAZ

- Has been working on new spectroscopy setup for photoluminescence measurements.