



Prof. Fred H. Pollak, Distinguished Professor of Physics Emeritus at Brooklyn College and the Graduate Center of the City University of New York, died on June 19, 2008. He was 73 years old. This symposium has been organized to celebrate Fred Pollak's life and achievements. He was a tireless pioneer in the application of spectroscopic techniques to characterize semiconductor systems, a highly valued collaborator in research, an inspiring teacher/mentor to numerous students, and a great friend to many.

Fred was one of the founders of the technique of modulation spectroscopy and a pioneer in the use of modulation spectroscopy to study semiconductor structures such as superlattices, quantum wells and heterojunctions. Fred was also among the first to apply Raman spectroscopy techniques in studying the effects of uniaxial stress on phonon frequencies, providing new insight into the nature of anharmonic forces in semiconducting materials and systems.

In addition to his roles in the Physics Department of Brooklyn College and the Ph.D. Program in Physics at the Graduate Center, Prof. Pollak served as Deputy Director of the New York State Center for Advanced Technology in Ultrafast Photonic Materials and Applications at the City University of New York and Associate Director and Head of the Materials Group, New York State Center for Advanced Technology in Telecommunication at Polytechnic University. He was also Director of the Semiconductor Institute at Brooklyn College, Director and Fellow of the Society of Photo-Optical Instrumentation Engineers, and a Fellow of the American Physical Society.

Fred Pollak was born in Vienna, Austria and educated in the United States. After receiving his Ph.D in Physics from the University of Chicago in 1965, Fred was an Associate Professor of Physics at Brown University (1966 – 1972) and then Professor of Physics and Director of the Maxwell Maybaum Institute of Material Science and Quantum Electronics at the Belfar Graduate School of Science at Yeshiva University (1972 – 1978). He joined the Department of Physics at Brooklyn College in 1978 and was appointed as a CUNY Distinguished Professor in 1988.

This symposium provides an opportunity for Fred Pollak's former colleagues and students to remember a wonderful research physicist, mentor, teacher, and friend.

Technical Program:

**Woody Tanger Auditorium  
Brooklyn College Library**

- 9:30 Welcome**
- 9:40 Harry Gafney Making Optics Relevant to the CAT**
- 10:00 Joseph Birman Hybrid Quadrupole-Dipole Excitons & Polaritona**
- 10:20 Morrel Cohen Mathematical Finance with Fred**
- 10:40 Robert Silberstein Electrolyte Electro-Reflections**
- 11:00 Godfrey Gumbs A Current Standard using High-Frequency Electron Pumps.**
- 11:40 Jerry Woodall Fred's Collaboration with Jerry Woodall at IBM.**

**Lunch  
Gold Room – SUBO**

- 2:00 Maria Tamargo**
- 2:20 Paul Ying-Sheng Huang Growth and Characterization of RuO<sub>2</sub> and IrO<sub>2</sub> Nanaocrystals**
- 2:40 Martin Muñoz Optical Studies on Antimony-Based Semiconductors.**
- 3:00 Raymond Tang Interface Dipole: From Schottkey Barriers to High-K/Metal-Gate**
- 3:20 Kai Shum Observation of the Peculiar Temperature Dependence of the CuSnI<sub>3</sub> Band-Gap.**
- 3:40 Todd Holden**
- 4:00 Communications From:**

•Manuel Cardona  
•Bruce McComb

•Dave Aspnes  
•Bernard Weinstein

•Gary Wicks  
•John Freeouf