Barmak, Calvert, Speck, and Tung to Chair 1999 MRS Spring Meeting









Katayun Barmak

Paul Calvert

James S. Speck

Raymond T. Tung

The 1999 Spring Meeting of the Materials Research Society will be held April 5–9 in San Francisco, and will be chaired by Katayun Barmak, Paul Calvert, James S. Speck, and Raymond T. Tung. The meeting comprises 34 symposia covering a range of topics including traditional and new, along with five potential tutorials. New symposia will be presented in such areas as magnetic, semiconducting, insulating, and biomedical materials. An exhibit of products and services will be offered April 6–8.

Katayun Barmak has been an associate professor of materials science and engineering at Lehigh University since 1992. She received her PhD degree in materials science (1989) from the Massachusetts Institute of Technology. During her doctoral work, she was the recipient of an AT&T Foundation Fellowship.

Barmak's research interests include experimental and theoretical studies of reactions and phase transformations in thin films, magnetic thin films, composite and layered coatings, sputter deposition, electrodeposition, transmission and analytical electron microscopy, differential scanning calorimetry, and x-ray diffraction. Her work on thin films has recently focused on the evolution of grain structure in the reaction of multilayers, while her studies on coatings have centered on developing electrochemical methods for the fabrication of thermal barrier coating structures.

Barmak has co-authored 82 papers, including a review article on the investigation of thermodynamics and kinetics of thin-film reactions by calorimetry. She received the National Young Investigator award from the National Science Foundation in 1994, and in 1995, she was given the Alfred Noble Robinson Award from Lehigh University for outstanding performance and unusual promise of professional achievement. In 1992, she received the Harold Chambers Junior Faculty Chair in

Materials Science and Engineering, also from Lehigh University.

Barmak has co-organized two MRS technical symposia in 1994 and 1997. She became chair of the MRS Membership Committee in 1996, after having served as a member and a subcommittee chair in the previous two years. She currently serves on MRS Council.

Paul Calvert, is a professor in the Department of Materials Science and Engineering at the University of Arizona—Tucson along with a continuing collaboration with Sandia National Laboratories. He received his PhD degree from the Massachusetts Institute of Technology in 1971.

Research on polymer crystallization led to an interest in the redistribution of additives in crystallizing polymers and thence to studies of crystallization of additives in polymers. From this he went on to study mineralization of biological tissues, initially working on gout. From this it was natural to attempt to make biomimetic materials by the growth of inorganic particles in synthetic polymers. Currently much of his work is on extrusion freeform fabrication in an effort to build solid objects from these biomimetic materials.

In addition to numerous research papers and a co-authored book on crystals in joint diseases, he has written on polymers for the News and Views section of *Nature* over the last 20 years.

James S. Speck received his PhD degree from the Massachusetts Institute of Technology. After a brief postdoc at MIT, Speck joined the faculty at the University of California—Santa Barbara in 1990 and he is the director of the UCSB Electron Microscopy Facility.

His current work involves approaches to defect reduction in highly misfitting thinfilm semiconductors, microstructural development in GaAs grown at low temperatures (LT-GaAs), the growth and microstructure of thin-film oxides grown epitaxially on semiconductor or oxide substrates, and the structure and properties of epitaxial ferroelectric films. Recently, he has worked extensively on the growth and microstructure of epitaxial GaN films prepared either by metalorganic chemical vapor deposition or molecular beam epitaxy. His recent research in GaN has focused on the origin and evolution extended defects and their role on electronic, optoelectronic, and optical properties.

Speck is a member of the Materials Research Society, the American Physical Society, the Microscopy Society of America, and the Electronic Materials Committee of The Minerals, Metals & Materials Society. He has organized symposia for some of these societies. He is the author of approximately 80 scientific papers.

Raymond T. Tung received a PhD degree in physics from the University of Pennsylvania. He joined Bell Laboratories in 1980 as a postdoc and worked on the growth of epitaxial silicide thin films. He became a member of technical staff in 1982 and presently holds the position of distinguished member of technical staff with Lucent Technologies, Bell Labs. Tung's effort in establishing the link between the Schottky barrier height and the atomic structure of metal-semiconductor interfaces earned him a Peter Mark Memorial Award from the American Vacuum Society. His present research focuses on low resistance contacts in ultralarge-scale integration devices, notably those involving Ti and Co silicides.

Tung is a Fellow of the American Physical Society and has organized symposia for MRS and other societies. He was an adjunct professor of the University of Pennsylvania in 1989–1991 and spent most of 1996 as a visiting chair at the Quantum Effect Electronics Research Center of Tokyo Institute of Technology.