UNIVERSITY CHAPTERS

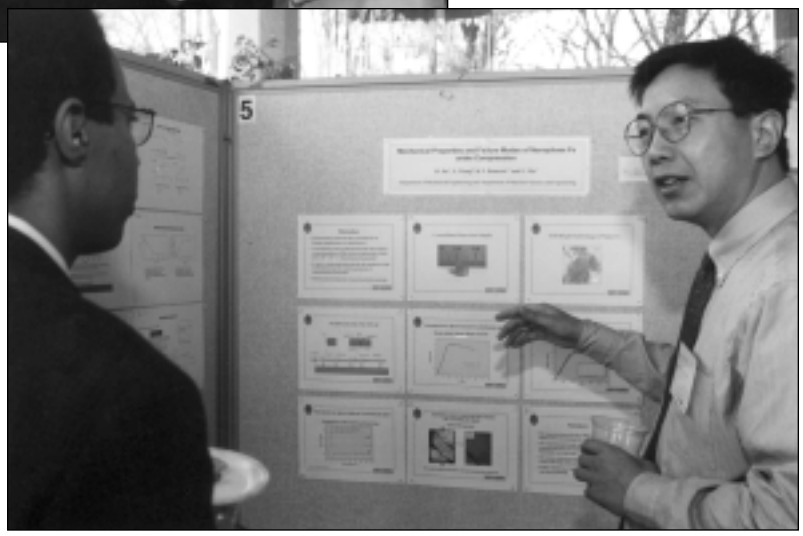
Hopkins MSE Students Present Research in One-Day Symposium to Regional Community

The Materials Research Society University Chapter at Johns Hopkins University (JHU) organized a one-day Materials Science & Engineering Graduate Research Symposium 2000, held on March 17. The event was designed to provide opportunities for graduate and undergraduate students to present their research to the greater JHU community, regional industry, and local and national laboratories. Among the 108 attendees were representatives from the Army Research Laboratory, the JHU Applied Physics Laboratory, the Federal Highway Commission, the Smithsonian Institution, Lawrence Livermore National Laboratory, Ford Motor Company, and Dacco Scientific Inc.

The symposium unfolded with presentations by graduate students Chris Richardson on "Dynamic Properties of Thin Films," Kerri Blobaum on "Reactive Multilayer Foils for Joining Applications," Jeff Killian on "Electronically Conducting Polymers," Eva Wong on "Nanocrystalline Semiconductors," and John Balk on "TEM Investigation of Dislocation Cores." A poster session highlighted research by both undergraduate and graduate students within the departments of Materials Science and Engineering, Mechanical Engineering, Biomedical Engineering, Chemistry, and Physics.

Alan Taub, manager of Lincoln Vehicle Engineering at Ford, gave the keynote address on "Materials Science and Engineering in an Automotive Company." He discussed the evolution of materials processing and production at Ford. Beginning with the early years of the wooden Model T and concluding with cutting-edge materials designs for future lines, Taub described the gradual incorporation of new structural materials into the automobile industry. He said that an increased desire for weight savings, fuel economy, and improved safety features through the years has driven researchers to create lightweight, high-strength materials with increased ductility and toughness. The incorporation of materials such as lightweight metals and durable plastics within the automobile engine and frame can offer increases in structural stability and strength, while reducing the average vehicle weight by more than 60%. However, as Taub said, the incorporation of such innovations, although scientifically groundbreaking, must often be compromised in order to maintain an attractive consumer price. This sensitive balance between innovative technology and cost savings can offer many interesting challenges to new materials engineers in the automotive industry. Taub finished his talk by emphasizing the numerous career opportunities available to materials science and engineering graduates at all levels, and he concluded his visit by having an informal lunch discussion with JHU students interested in positions at Ford.

*Left: Keynote speaker **Alan Taub** (Ford Motor Co.) receives an honorarium from **Jennifer Hooper**, chair of the Graduate Organizing Committee, during the Materials Science and Engineering Graduate Research Symposium at Johns Hopkins University, held on March 17.*



*Graduate student **Dexin Jia** (Department of Mechanical Engineering) describes his research to attendees during the poster session at the Materials Science and Engineering Graduate Research Symposium at Johns Hopkins University, held on March 17.*

The symposium organizers furnished each attendee with a binder containing a brief history of the department, poster abstracts, copies of graduate-student presentations, and student resumes. Several attendees said that the resume section would be useful for recruiting graduate students for employment.

Along with MRS, the symposium was sponsored by the JHU Materials Research Science and Engineering Center, the JHU Department of Materials Science and Engineering, the Johns Hopkins Alumni Council, and the JHU Graduate Representative Organization. □

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