

**MRS University Chapter Publishes Handbook**

The MRS Chapter at the University of Rochester, with contributions from the University of Michigan Chapter, created and edited a manual on how to set up and successfully run a University Chapter, *MRS Student Chapter Handbook*. The manual is complete with information, instructions, and copies of required forms. It lays out step-by-step how to register the chapter with the Materials Research Society, and how to recruit members.

Once the MRS University Chapter is established, the editors offer tips on how to generate funding from members and the university. They explain three funding programs offered through MRS: The Rebate Program, Special Projects (such as this manual), and the Distinguished Speaker Fund.

Two major activities covered in these pages describe how to sponsor and cosponsor seminars and how to carry out grassroots education in the local community. When sponsoring a seminar, the type of questions the Chapter should ask itself are "What kind of event would you like to sponsor?" "If you decide to sponsor an invited lecture, where do you start?" "How do you pay for a speaker?" "How do you get a speaker to come?" and "How do you plan the seminar itself?" A similar list is provided for grassroots education.

The editors offer their own experiences as examples and provide samples of letters and forms they used for Chapter events. They end the manual with a brainstorm of other activities various Chapters could pursue.

For further information about the *MRS Student Chapter Handbook*, contact MRS Member Services at 412-367-3004 x402; fax 412-367-4373; e-mail [info@mrs.org](mailto:info@mrs.org).

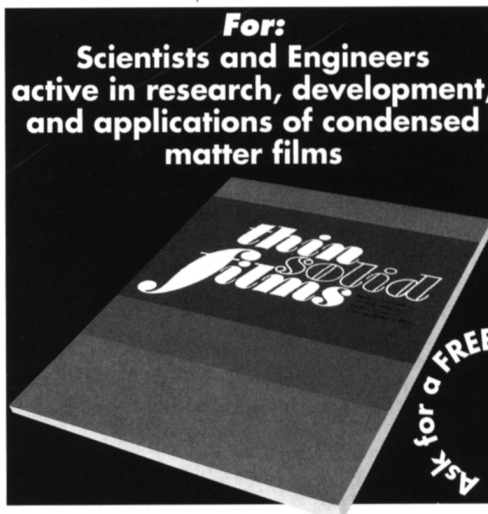
**University of Rochester Chapter to Ship Lab Equipment to Philippines**

Michal Freedhoff, Kristen Kulinowski, and Sean Moran of the Chemistry Department at the University of Rochester are organizing a shipment of old laboratory equipment and supplies for the Ateneo de Manila University in the Philippines. Their efforts are cosponsored by the University of Rochester Chapter of the Materials Research Society.

Kulinowski and Moran initiated this project after a recent visit to Manila where they found that the university's scientists, lacking funding for supplies, ingeniously

# thin Solid Films

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used old baby bottles as glassware, and made optical equipment with pieces of old compact disks. The two students, along with Freedhoff, the current Chapter president, decided to contact local industries and universities in addition to all science and engineering departments at their university in order to solicit equipment and monetary donations. Thus far, publicity for the event has been secured on campus, locally, and nationally, and the group hopes to be able to contribute to every science and engineering department at the Ateneo. The students find gratification in being able to encourage research and education in less-developed countries, plus the project provides an environmentally friendly way of recycling equipment that donors no longer use.

The group is soliciting glassware, solar calculators, pipettes, top-loading balances, centrifuges, circulating pumps, ultraviolet lamps, thermometers, heating mantels, heating tapes, chromatographs, spectrometers, refractometers, polarimeters, microscopes, simple optics and electronics, voltmeters, computer equipment (PC), technical journals, and other low-maintenance laboratory equipment. Monetary donations are also accepted to help cover shipping expenses and the purchase of disposable items such as pH

**To donate equipment or money for the Philippines project**

Contact Michal Freedhoff at 716-275-2980, e-mail: frem@uhura.cc.rochester.edu; Kristen Kulinowski at 716-244-1778, e-mail: krsk@DB1.cc.rochester.edu; or Sean Moran at 716-275-3027.

Checks and money orders can be made payable to the "University Outreach Society" and sent to one of the students listed above, c/o Department of Chemistry, University of Rochester, 404 Hutchinson Hall, Rochester, NY 14627; receipts and bank statements are available upon request.

Contact the students involved before sending equipment to ensure that the particular items are needed.

paper, batteries, and pipettes.

The shipment date is tentatively scheduled for early July 1995.

MICHAL FREEDHOFF

**UC—Berkeley Chapter Prepares for Exceptional Teaching Award**

For the third semester, the MRS Chapter at the University of California—Berkeley is gathering information and distributing a Course Evaluation Guide providing details on each class offered in the Department of Materials Science and Mineral Engineering. Both undergraduate and graduate students participate in the evaluation project. The Chapter further uses the information in order to choose a faculty member for the Exceptional Teaching Award. Timothy Sands was the most recent (and first) recipient of the Award.

The evaluation includes an overall rating for the course, the professor's teaching ability and clarity, the teaching assistants' instructing qualities, the textbook, and the homework assignments and exams. Recipients are chosen by tallying up scores based on the evaluation for each professor. Each recipient's name is engraved in a plaque the Chapter created that hangs in the department office. The recipient for the Spring semester will receive the award this Fall. □

Send MRS University Chapter and Section News to: Editor, *MRS Bulletin*, Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237-6006. Fax: (412) 367-4373; e-mail: Bulletin@mrs.org.

**CONFERENCE REPORT**

**International Workshop Illustrates Progress in Determination of 2-D Dopant Profiles**

The third international workshop on the Measurement and Characterization of Ultra-Shallow Doping Profiles in Semiconductors was held at Research Triangle Park, North Carolina on March 20–22, 1995. The workshop was chaired by Jim Ehrstein of the National Institute of Standards and Technology (NIST), Rajiv Mathur of Intel, and Gary McGuire of Microelectronic Center of North Carolina (MCNC). The meeting was attended by 135 people from 10 countries, and 51 papers and posters were presented. Refereed versions of the papers will appear in a single issue of *Journal of Vacuum Science and Technology*, as has the papers from the previous two workshops in this series.

This workshop, which has been held biennially since 1991, has the special character that it focuses on a single topic, dopant distributions in ultra-thin layers in semiconductor materials, in a manner that

is deeper than a general session on semiconductor characterization and yet broader than the coverage in specialty meetings that are focused on a single family of analytical techniques, such as the meetings on secondary ion mass spectrometry (SIMS) or atomic force microscopy (AFM).

In addition to many detailed papers on the use of SIMS, transmission electron microscopy (TEM), spreading resistance profiling (SRP) and capacitance-voltage measurements, progress was also reported in the use of AFM-based probes, analysis of secondary electron emission from doped junctions, and time-resolved surface photovoltage measurements. The meeting was significantly enhanced by sessions on process modeling and techniques for extraction of doping profiles from transistor characteristics for deep-sub micron CMOS devices.

Among the many dramatic examples of the recent progress which has been made

in the determination of two-dimensional dopant profiles, one of the most beautiful was the work of Roger Alvis and his co-workers at AMD and Stanford which used a combination of cross-section TEM and AFM, chemical etching, SIMS and process modeling to show the details of the effects ion energy and beam incidence angle on the characteristics of source/drain junctions on the implanted and shadowed edges of poly-silicon gate structures. The two-dimensional doping levels for As implants were determined over a concentration range from  $10^{20}$  to  $10^{18}$  cm<sup>-3</sup> with a spatial resolution of a few nm.

The workshop was sponsored by American Vacuum Society, Intel, MCNC, NIST, and Sematech with corporate support from Evans East and Varian. It is anticipated that this workshop will be held again in two years.

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