

### E-MRS Announces Summer School on Organic Materials for Photonics

The European Materials Research Society (E-MRS) will hold a summer school in Obereggen, Italy, June 24-28, 1991 on organic materials for photonics. The program will focus on organic molecules with large and very fast nonlinear optical response. The school will offer an elementary introduction to the theoretical and experimental aspects in this field. Lectures will be at a tutorial level with ample time for separate discussions. The scientific committee, members of E-MRS Network 11 on Poly-conjugated Polymers, includes representatives from Austria, Belgium, France, Germany, Italy, the Netherlands, Sweden, Switzerland, and the United Kingdom.

Accommodations are provided at the Sport Hotel Obereggen, Bolzano, Italy. Participants in the school are limited to 100. The full rate registration for the course is 700 ECUs, with a reduced rate of 350 ECUs for students and young university scientists.

The fees include tuition and hotel expenses.

For more information, contact: Prof. Giuseppe Zerbi, Dipartimento Chimica Industriale, Politecnico, Piazza L. Da Vinci 32, 20133 Milano, Italy; phone 39-2-2399-3235/3230; fax 39-2-236-2589; e-mail Dartstellung@imic64; bitnet RCHIN10IMPOLI.

### IEEE/LEOS Summer Meetings Focus on Optoelectronics Topics

Two summer topical meetings sponsored by the IEEE Lasers and Electro-Optics Society and in cooperation with the Materials Research Society and the Optical Society of America will focus on specific aspects of optoelectronics topics.

Epitaxial Materials and In-Situ Processing for Optoelectronics Devices, July 29 - 31, Newport Beach, California, will feature 18 speakers and cover the synthesis,

growth, processing, and characterization of epitaxial semiconductor materials for optoelectronic and photonic applications. All aspects of epitaxial growth of advanced, integrated, or novel materials and in-situ formation of device structures for optoelectronic applications will be emphasized. Conference co-chairs are Russell D. Dupius (University of Texas at Austin), Robin F.C. Farrow (IBM), and J. Richard Shealy (Cornell University).

Topics for the meeting on Microfabrication for Photonics and Optoelectronics, July 31 - August 2, 1991, include new etching, implantation, diffusion, in-situ processing, and lithographic and beam writing technologies for the creation of novel optoelectronic structures. Thirty-one speakers have been selected for this event, co-chaired by Larry Coldren (University of California at Santa Barbara) and Harold Craighead (Cornell University).

For information about these two meetings, contact: IEEE/LEOS, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331; phone (908) 562-3896; fax (908) 562-1571. □

## Workshop on Thin Films for the 21st Century to Consider Issues in Science, Technology, Manufacturing, Education

### Poster Papers Invited

Where will thin film technology be 10 to 20 years from now? What fundamental scientific issues will bring about future developments? What will future manufacturing requirements be? Is current education in this area adequate?

Key scientists, technologists, educators, and industrial and government leaders will gather July 28 - August 2, 1991 at Northwestern University, Evanston, Illinois, to address these issues and more. A report covering these questions, forecasts, and recommendations will be submitted to the U.S. National Science Foundation, and a published version will also be made available to the public.

The Workshop, sponsored by the NSF and Northwestern and co-sponsored by the International Union of Materials Research Societies and MRS, will feature a different topic on

each of the five days. Invited, internationally distinguished speakers will give talks each morning, followed by panel discussions in the afternoon and contributed poster presentations in the evening.

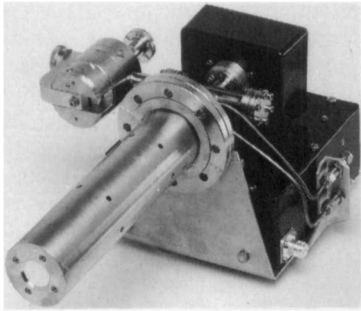
The panel chairs will be pleased to consider poster presentation abstracts for the featured topics: Si and group IV materials (Chair, B.S. Meyerson), compound semiconductors (Chair, Daniel P. Dapkus), polymer/biological/organic/insulators (Chair, Tobin J. Marks), superconductors/ceramics (Chair, R.A. Burhman), and magnetic materials (Chair, Gary A. Prinz). The abstract deadline is **June 1, 1991**.

Distinguished lecturers include: Manasori Abe, Nicholas Alexopoulos, John C. Angus, Yoshinobu Aoyagi, Gary Bjorklund, Frederico Capasso, James Coleman, James

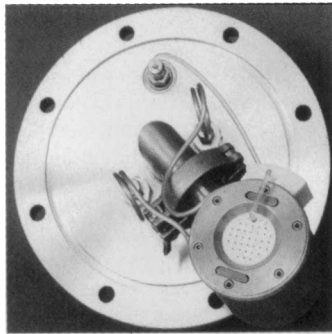
M. Daughton, Leo M. Falicov, Curtis Frank, Jack Furdyna, Michael W. Geis, Allen M. Goldman, Kenneth Gray, S. Hasuo, Alan J. Heeger, Paul Horn, Klavs Jensen, Vic Jipson, Tomoji Kawai, Atsushi Koma, Mark H. Kryder, Thomas Kuech, Tadahiro Ohmi, Hiroyuku Sasabe, Ludwig Schultz, Sheldon Schultz, Tuomo Suntola, Akira Usui, J.H. Weaver, Gerhard Wegner, David J. Williams, Grant Willson, Raymond Wolfe, Mark S. Wrighton.

Attendance at the Workshop is limited to 150, so register as soon as possible.

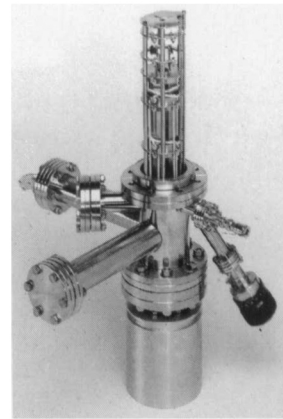
For information about submitting abstracts or attending the Workshop, contact: Judy Turner, Northwestern University, Materials Research Center, 2145 Sheridan Road, Evanston, IL 60208-3116; phone: (708) 491-3606; FAX (708) 491-4181.



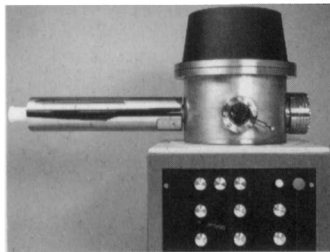
H atom (pre-clean)  
N atom (nitrides)



O atom oxidisers



Ion beam doping



RHEED

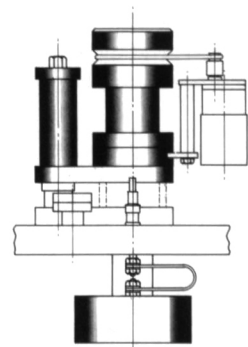


E-guns

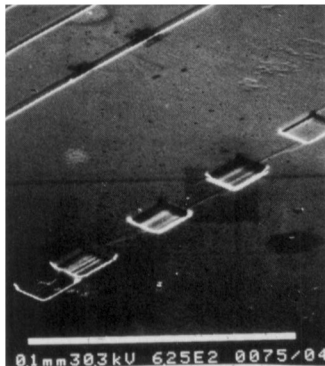
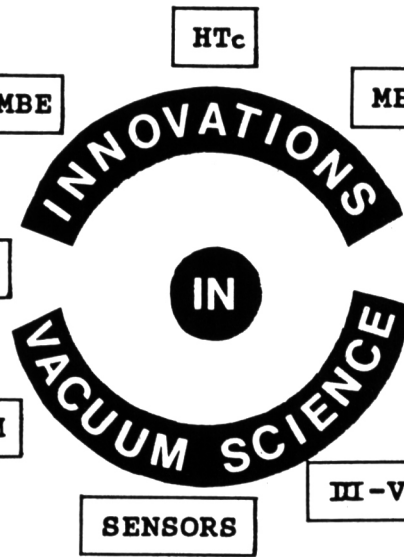
TEM

SENSORS

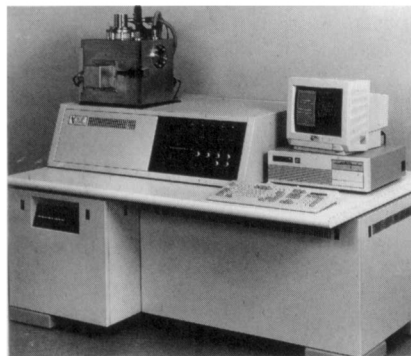
III-V/II-VI



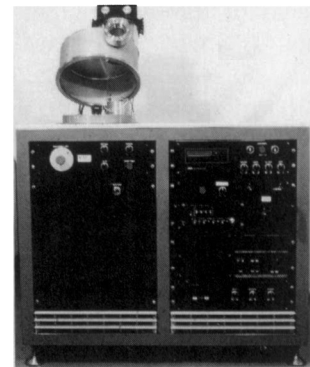
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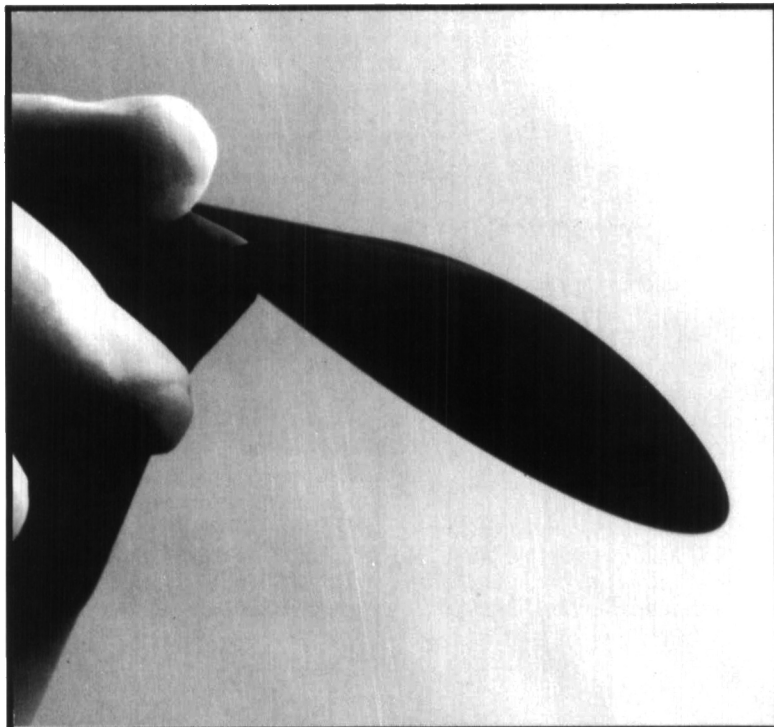
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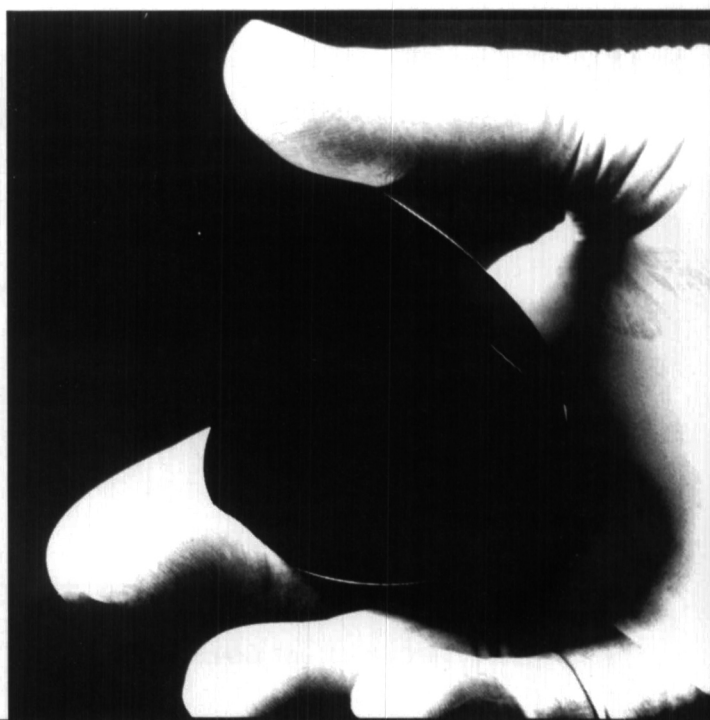
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