IBMM'98 Presents Exciting Developments in Ion Beam Modification of Materials

The 11th International Conference on Ion Beam Modification of Materials (IBMM) was held in Amsterdam, The Netherlands, from August 31 to September 4, 1998. IBMM is a major international forum to present and discuss recent results and future directions in the field of ion beam modification and formation of new materials. The conference is held every two years in alternating areas around the world, and brings together materials scientists, ion beam specialists, and those interested in practical and industrial applications. IBMM'98 was organized by a team at the FOM-Institute AMOLF, Utrecht University, and Philips Research, chaired by Albert Polman. About 300 participants from nearly 40 countries attended the meeting. Nearly 300 papers were presented in plenary oral sessions as well as poster sessions. IBMM'98 was endorsed by the Materials Research Society.

A wide variety of topics was represented at IBMM'98, including ion beam processing of silicon; phase formations in metals, insulators, or compound semiconductors; ion beam synthesis of optical materials and nanoparticles; ion irradiation effects on organic materials; new ion beam techniques; and the fundamentals of ion beam-solid interactions. Although these topics seem very diverse, the presentations at the conference all shared the use of ion beams. This led to an interesting cross-fertilization between these different fields.

Low-energy cluster beams, ion-assisted deposition, and plasma synthesis were among the highlights in the oral and poster sessions on new techniques and applications of ion beams. Many contributions conveyed that ion beam processing leads to the formation of new and practical materials at a degree of precision and control that cannot be achieved with other methods. Examples that were shown include the ion beam synthesis of luminescent iron-disilicide, or semiconductor and metallic nanoparticles. A session with great potential technological impact was held on defects, diffusion, and Si technology, in which the application of very low energy ion implantation and the effect of the surface on defects and diffusion kinetics were addressed. Reports on ion beam modification of metals included new developments on magnetic multilayers. Sessions on strain, stress, and plastic flow brought together reports on these topics from different materials fields. With the growing importance of wide bandgap semiconductors, such as GaN, it was interesting to note new ion beam developments in this area. That organic materials are compatible with ion beam processing became clear in sessions that addressed topics such as ion beam microprocessing.

Altogether, IBMM'98 was an exciting conference. The scientific program was complimented with a canal boat tour through Amsterdam, a conference reception in the historic Maritime museum, and a conference outing in scenic North-Holland. The historic setting of the Royal Tropical Institute Conference Center further stimulated the development of new contacts, collaborations, and friendships between participants from all over the world.

The full IBMM'98 program and abstract book can be found at the IBMM website: http://www.amolf.nl/ibmm98, and can be downloaded. A conference proceedings containing around 225 conference papers will be published by Elsevier Science Publishers as a special issue of *Nuclear Instruments and Methods B* in January 1999. For more information contact ibmm98@amolf.nl. The next IBMM conference will be held in September 2000 near Porto Alegre, Brazil, and will be chaired by M. Behar and F.C. Zawislak.

ALBERT POLMAN
IBMM'98 Chair

"Every single atom is an idea, with a story to tell."

Michael Benedikt
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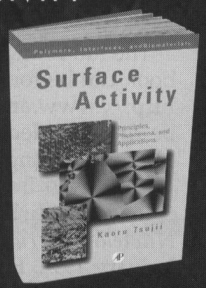

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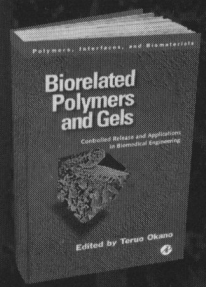

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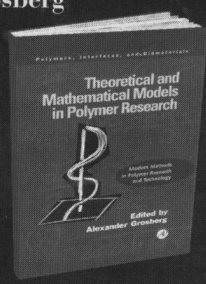

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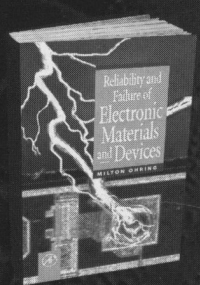

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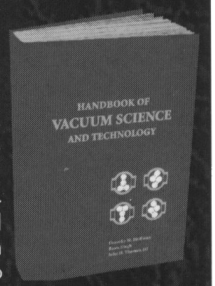

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