

# MRS

# BULLETIN

November 1988

Volume XIII, Number 11

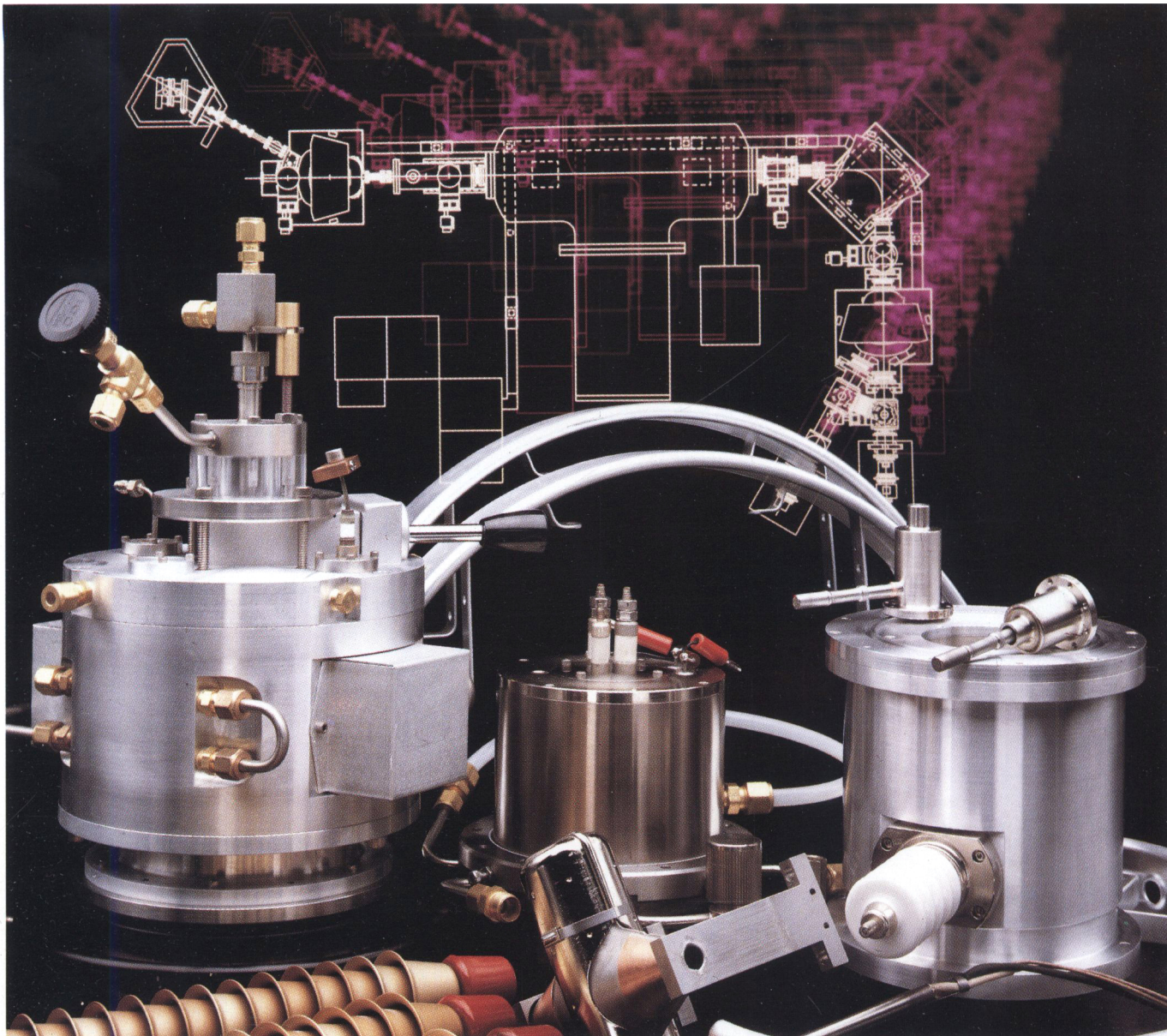
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## Deposition Processes

### Part I







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# MRS BULLETIN

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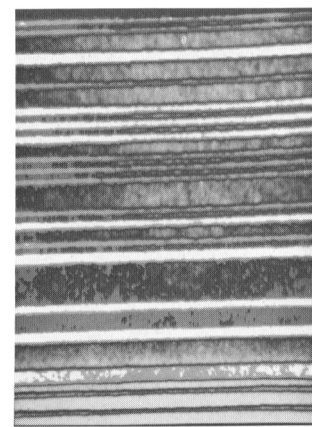
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**ON THE COVER:** False-color photo shows the cross-sectional TEM image of a GaAs-AlGaAs random superlattice produced by MBE. The image was taken from the (200) diffraction spot, which is more intense for AlGaAs than for GaAs (by M. Treacy, T. D. Moustakas, S. B. Rice, and M. M. Disko). For more information, see the article on "Molecular Beam Epitaxy: Thin Film Growth and Surface Studies" by T. D. Moustakas on p. 29.

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## ABOUT THE MATERIALS RESEARCH SOCIETY

The Materials Research Society (MRS) is a nonprofit scientific association founded in 1973 to promote interdisciplinary goal-oriented basic research on materials of technological importance. Membership in the Society includes more than 7,600 scientists from industrial, government, and university research laboratories in the United States and more than 25 countries.

The Society's interdisciplinary approach to the exchange of technical information is qualitatively different from that provided by single-discipline professional societies because it promotes technical exchange across the various fields of science affecting materials development. MRS sponsors two major international annual meetings encompassing approximately 30 topical symposia, as well as numerous

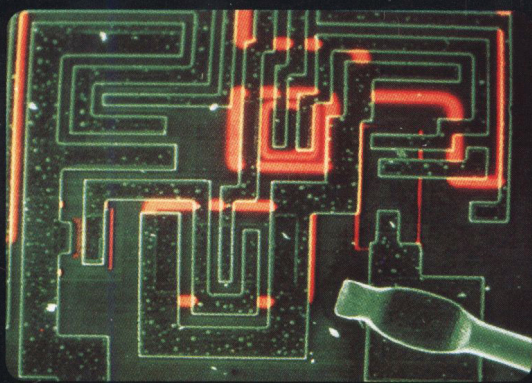
single-topic scientific meetings each year. It recognizes professional and technical excellence, conducts short courses, and fosters technical exchange in various local geographic regions through Section activities and Student Chapters on university campuses.

MRS is an Affiliated Society of the American Institute of Physics and participates in the international arena of materials research through associations with professional organizations such as European MRS.

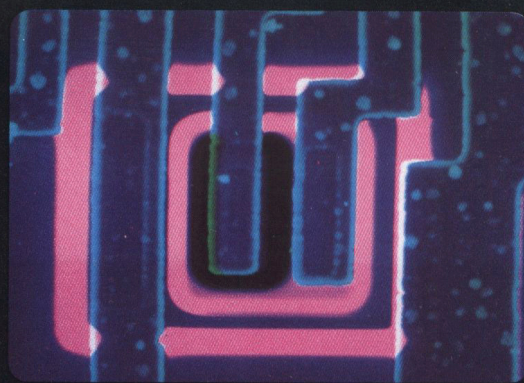
MRS publishes symposia proceedings, the *MRS BULLETIN*, *Journal of Materials Research*, and other current scientific developments.

For further information on the Society's activities, contact MRS Headquarters, 9800 McKnight Road, Suite 327, Pittsburgh, Pennsylvania 15237; telephone (412) 367-3003; facsimile (412) 367-4373.





A.\*



B.\*

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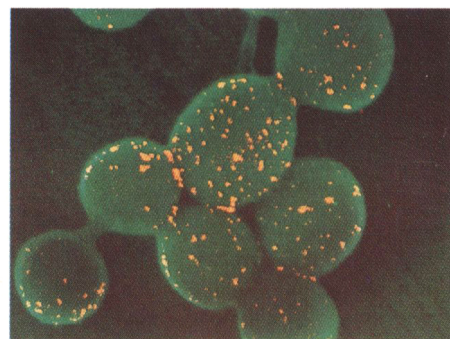
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the already high brightness field emission gun, this results in a bright flicker free high resolution image that can be viewed in a normally lighted room. The model S-4000 is a totally new SEM with many innovative features including a truly advanced digitally controlled operator console with computer controlled menu stored functions. There is even the capability of assigning colors to gray scale levels on the optional 12"-color monitor. If you are examining beam sensitive specimens or specimens that change excessively, there is a built-in beam blanking system that is automatically activated after an image is stored.

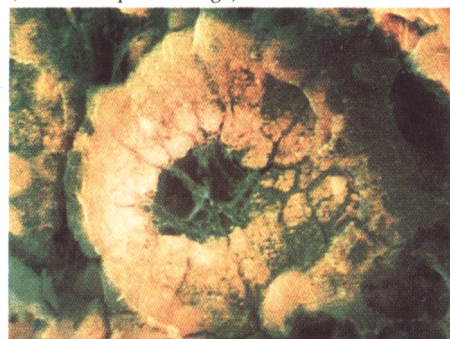


\*A. EBIC image on TTL-IC (SE/EBIC composite image)

\*B. EBIC image on TTL-IC transistor region (SE/EBIC composite image)



Colloidal gold reacting on staphylococci antibody (SE/RE composite image)



Rat lachrymal gland stained with heavy metal (SE/RE composite image)

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