

MRS

BULLETIN

July 1988

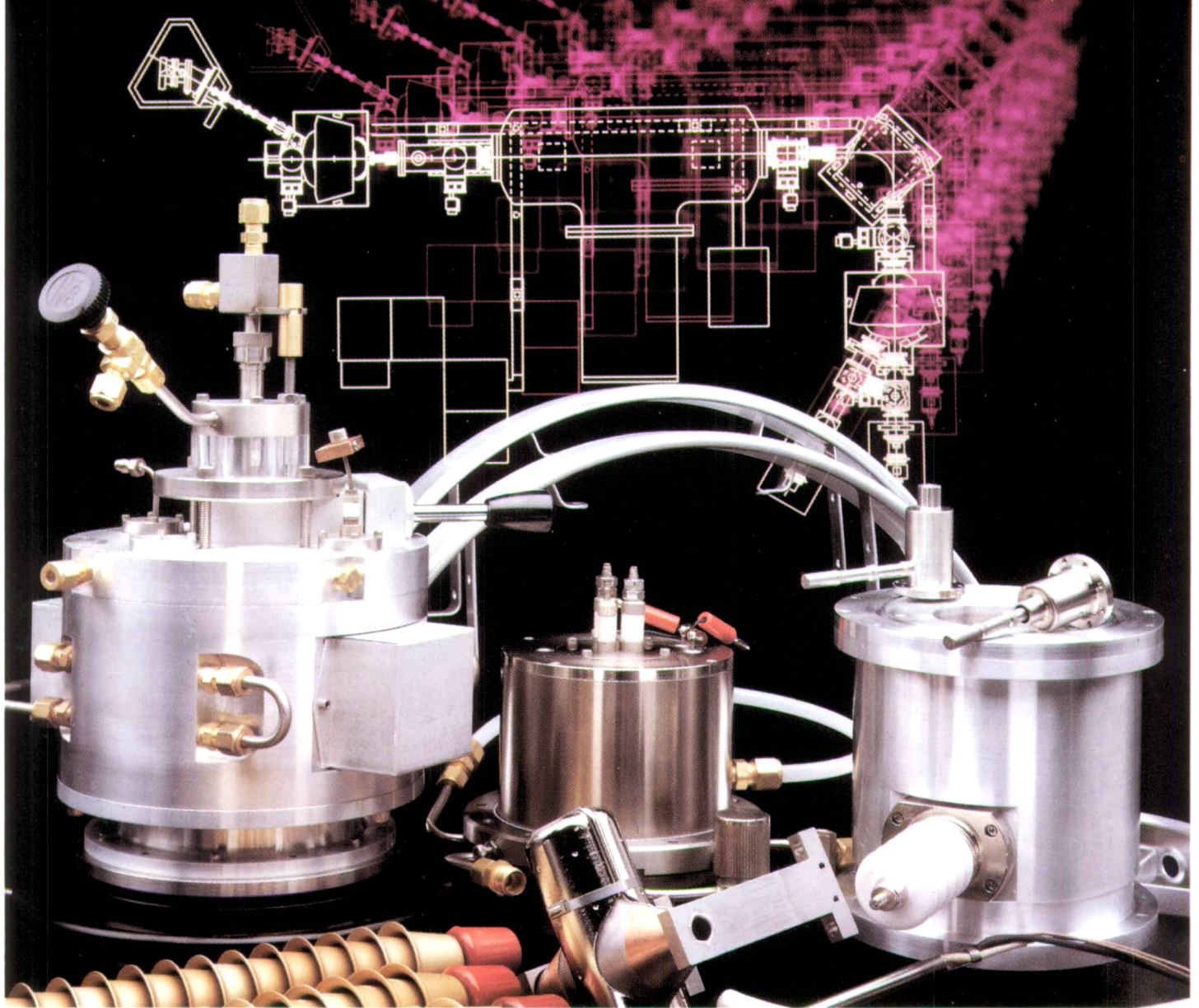
Volume XIII, Number 7

Serving the International Materials Research Community

Reno Meeting Report

Materials Aspects of the
SL Lightguide Undersea Cable





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ON THE COVER: The cover depicts the AT&T SL repeater and coupled lightguide cables in the process of being installed on the ocean bottom. The optical fibers and electrical conducting members of the cables are joined to their counterparts inside the repeater via coiled pigtailed. Optical pulses, guided by the fibers, enter one end of the repeater as low-level signals, and emerge from the opposite as high-level signals after being regenerated by the electro-optical circuitry within the repeater. Typically there are six regenerators within a repeater to complement six fibers within a cable, three for each direction of transmission. Electrical power for the repeater circuitry is provided via the cable from distant shore terminals. See "Materials Aspects of the SL Lightguide Undersea Cable Design" by R. D. Tuminaro on p. 14.

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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.

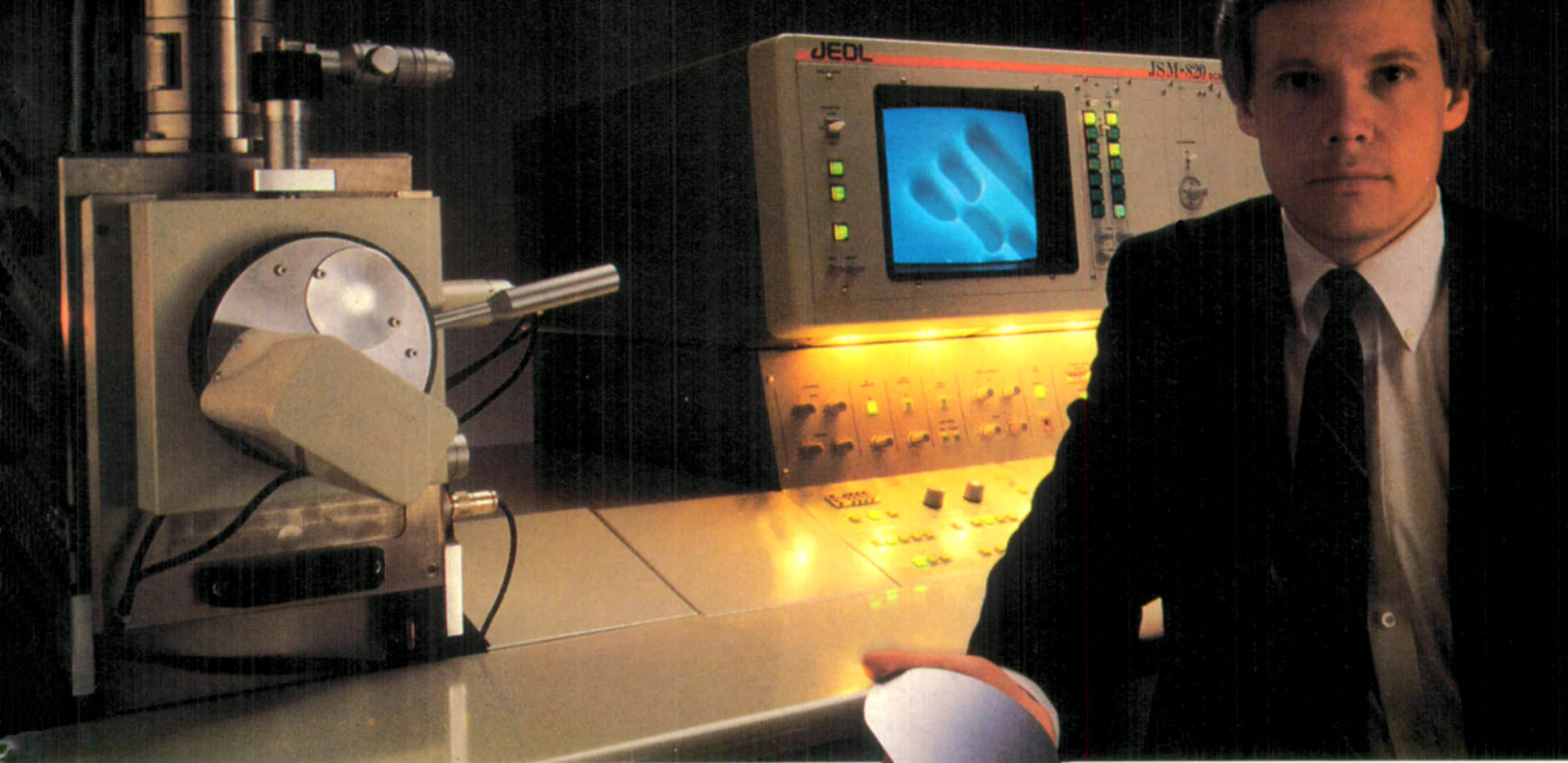
The Society's interdisciplinary approach to the exchange of technical information is qualitatively different from that provided by single-disciplinary professional societies because it promotes technical exchange across the various fields of science affecting materials development. MRS sponsors two major 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 geographical 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 volumes on current scientific developments.

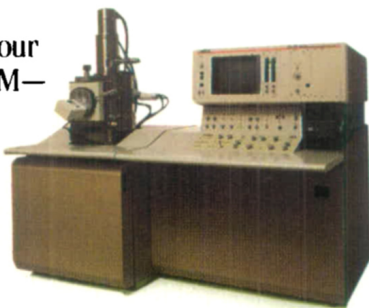
For further information on the Society's activities, contact MRS Headquarters, 9800 McKnight Road, Suite 327, Pittsburgh, Pennsylvania 15237; telephone (412) 367-3003; facsimile (412) 367-4373.



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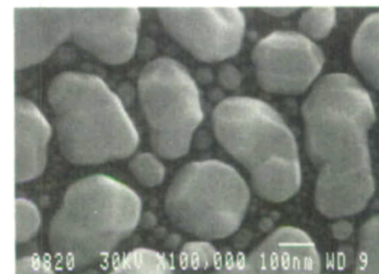
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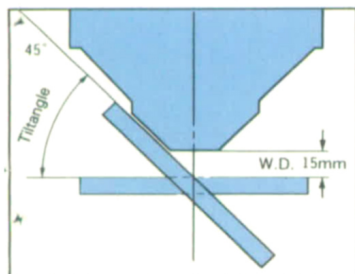


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