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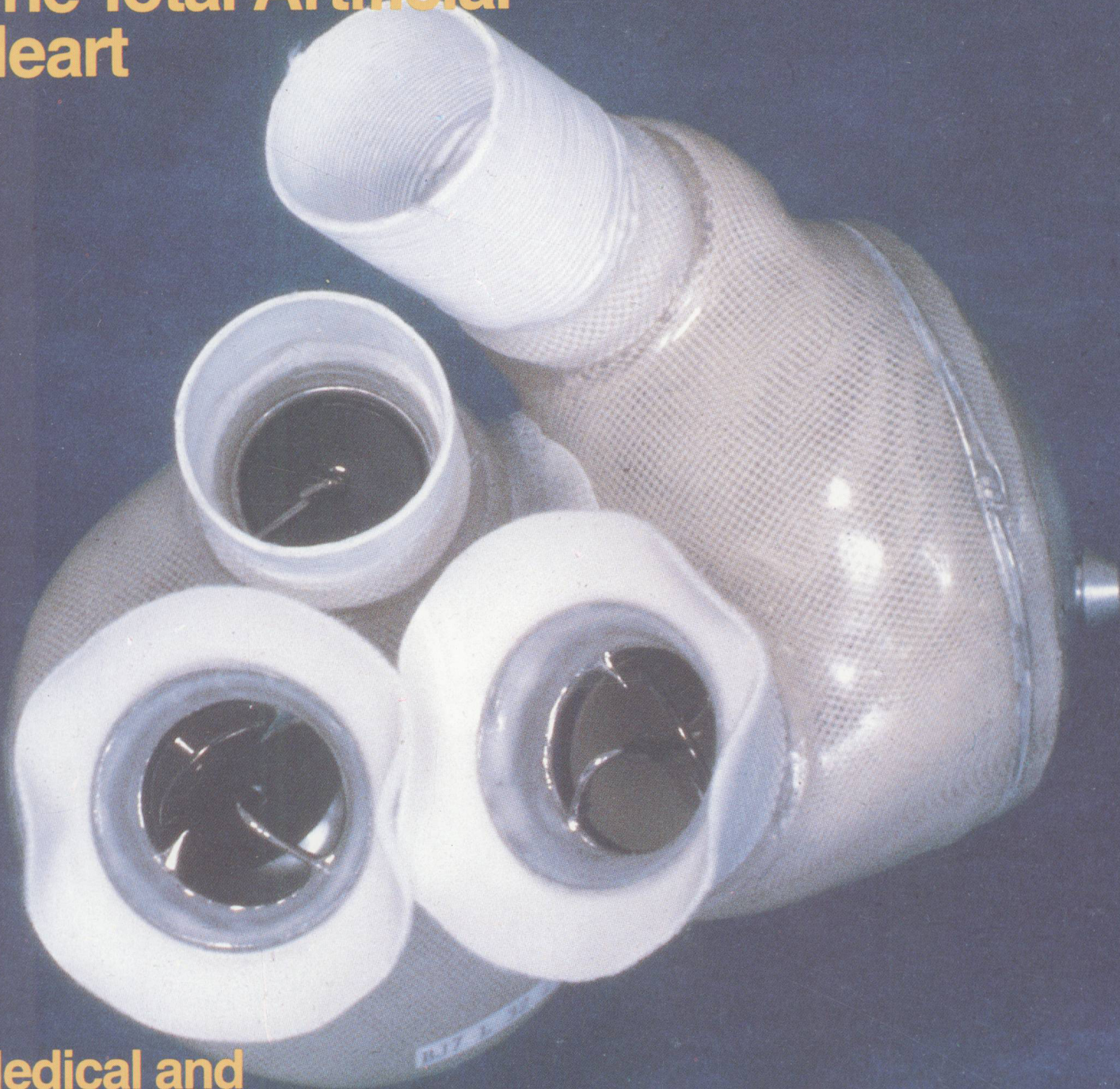
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May 1988

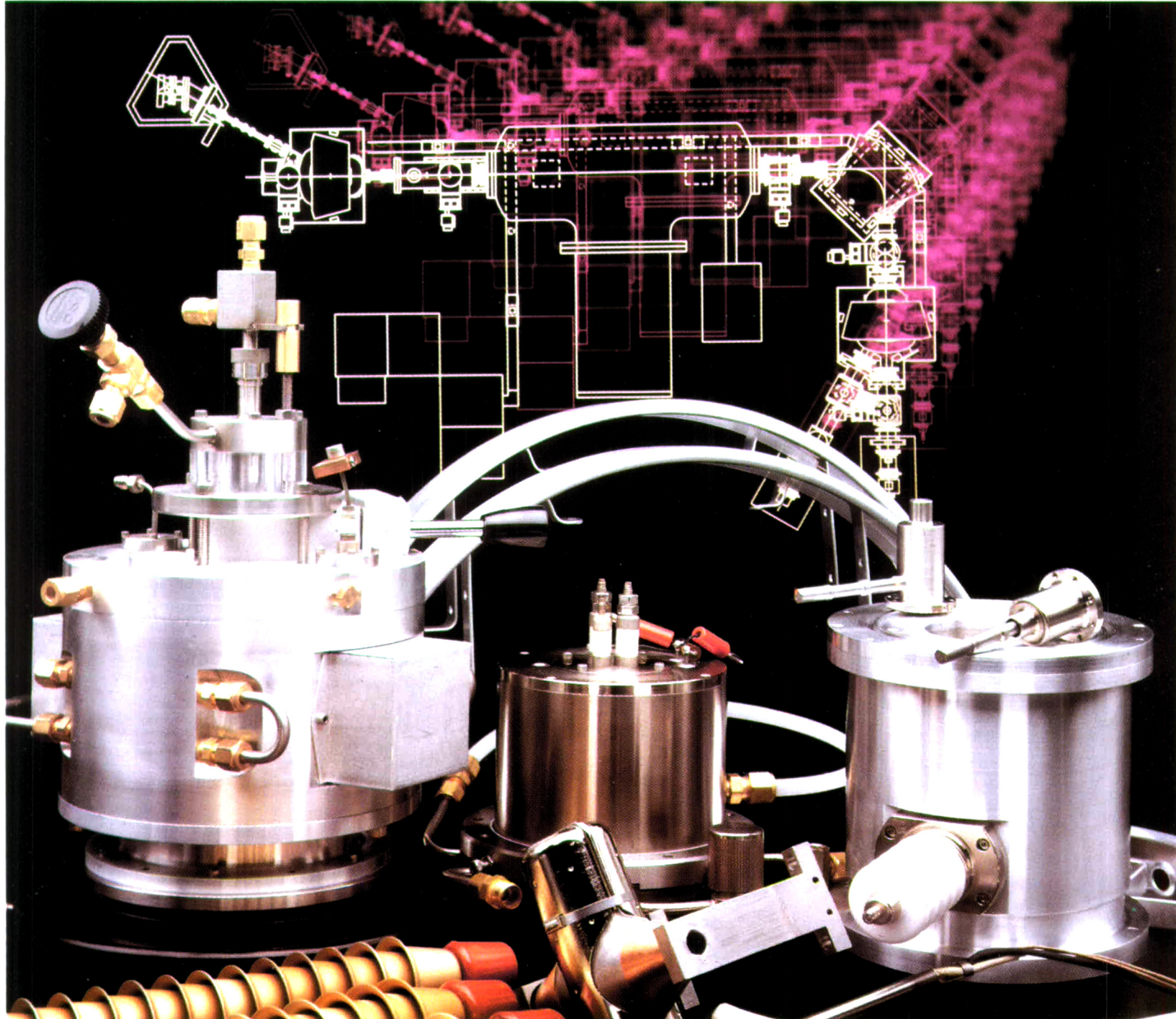
Volume XIII, Number 5

Serving the International Materials Research Community

The Total Artificial Heart



**Medical and
Materials Issues**



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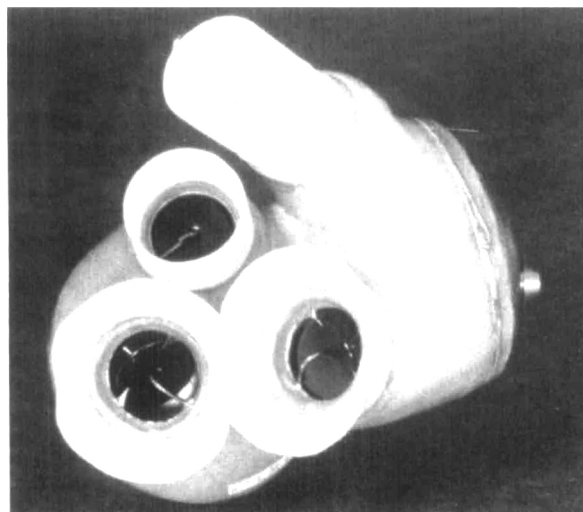
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ON THE COVER: The Jarvik artificial heart has a polyurethane rigid casing, a polyurethane diaphragm, and four clinical-grade valves. The two sections of this heart are connected by Velcro and replace the ventricles of the human heart. The Jarvik is powered outside the body by either the large Utah drive or the portable Heimes drive system. This model of the Jarvik heart was used for William Schroeder. See "Medical and Materials Issues of the Total Artificial Heart" by Dr. William C. DeVries on p. 25.

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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 5,900 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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