

MRS

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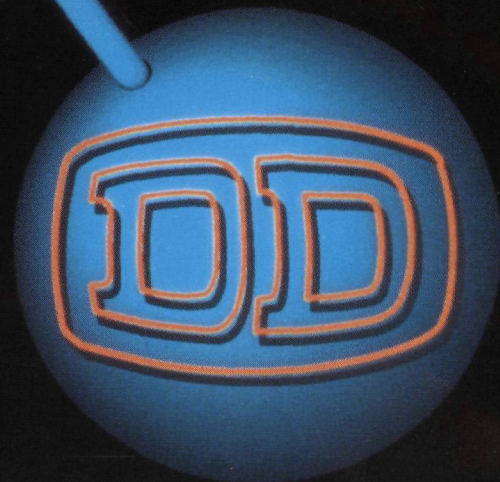
Serving the International Materials Research Community

Low-Density Microcellular Materials

80Å

A scanning electron micrograph (SEM) showing a highly porous, interconnected network of fibers or cells. The structure is dark with bright, irregularly shaped regions that form a complex, sponge-like lattice. The overall appearance is that of a low-density microcellular material. A scale bar in the lower right quadrant indicates a length of 80 Å.

A NEW CLUSTER IS BORN



General Ionex acquired by High Voltage Engineering Europa B.V.

In December 1987 High Voltage Engineering Europa B.V. (HVEE) acquired Dowlish Developments Ltd (DD), an accelerator tube manufacturer located in the United Kingdom.

On April 10, 1989, HVEE purchased the General Ionex Analytical Product Group from Genus Inc. based in the United States.

Through this acquisition HVEE positions itself as the largest and most diverse manufacturer of particle accelerators for the scientific and industrial research communities.

The acquired General Ionex (GI) product lines, which include the Tandetron accelerator systems and Model 4175 RBS Analyser, will be manufactured in HVEE's new, well-equipped facility in Amersfoort, The Netherlands.

World wide marketing of all products from HVEE, DD and GI will originate from HVEE Amersfoort with sales and service offices in the USA, Europe and Japan.

After addition of the newly acquired products HVEE's product lines include:

– *Ion Accelerator Systems*

- Air insulated accelerators up to 500 kV
- Single ended Van de Graaff accelerators up to 4 MV
- Tandem Tandetron accelerators up to 3 MV/TV

– *Research ion implanters*

- Beam energies 10 keV-9 MeV and higher

– *Systems for ion beam analysis*

- Systems for RBS, PIXE, PIGE, NRA, ERD, MACS and MEIS

– *Components*

- HV power supplies, electron and ion accelerator tubes, ion sources beamline components, beam monitoring equipment, UHV sample manipulators, etc.

For further information on this transaction and product literature please contact HVEE in Amersfoort/NL.



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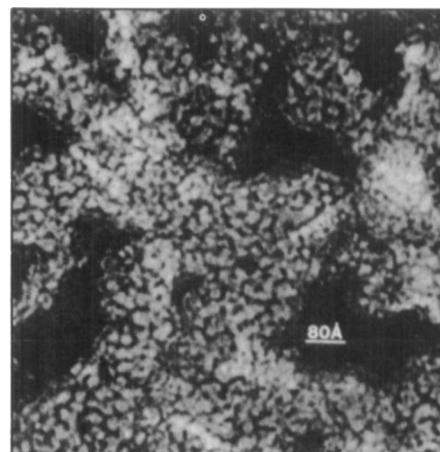
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ON THE COVER: High-resolution transmission electron micrograph (HRTEM) of a platinum-carbon (Pt-C) replica of resorcinol-formaldehyde aerogel prepared at [resorcinol]/[catalyst] = 200. The specimen has a density of 0.063 g/cm³, a surface area of ~580 m²/g (BET method), and a compressive modulus of 0.23 MPa. The complex microstructure is composed of particles or "beads" averaging 140±10 Å in diameter. (For example, two distinct spherical particles can be visualized below the scale marker.) The particles are joined to one another by "polymeric" resorcinol-formaldehyde chains. Note that *individual* chains are visible on the surface of the beads, enlarged from 3–7 Å in diameter to 9–13 Å by the deposited Pt-C film. Details of the HRTEM method for visualizing samples at the molecular level have been published (G.C. Ruben, *J. Elect. Microsc. Tech.* **13** (1989) p. 335), and a report by G.C. Ruben and R.W. Pekala on aerogels will appear in the Materials Research Society Symposia Proceedings *Better Ceramics through Chemistry IV*. Measurement bar is 80 Å. Photo prepared by George C. Ruben, Department of Biology, Dartmouth College, Hanover, NH 03755. For more information about this topic, see "Low-Density Microcellular Materials," especially the section on Aerogels, in this issue.

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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 10,000 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 40 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 University Chapters.

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.

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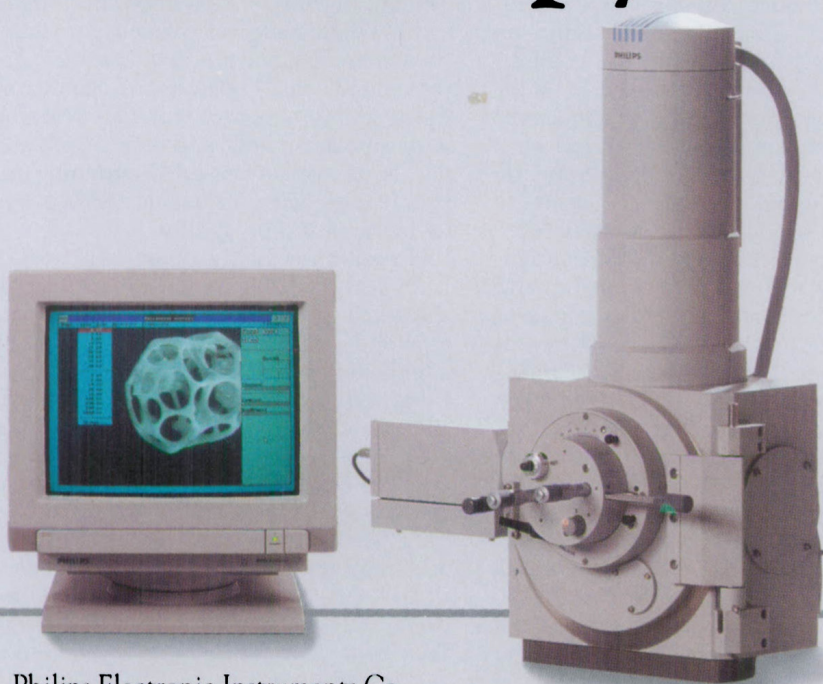
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