

Rapid Thermal Processing

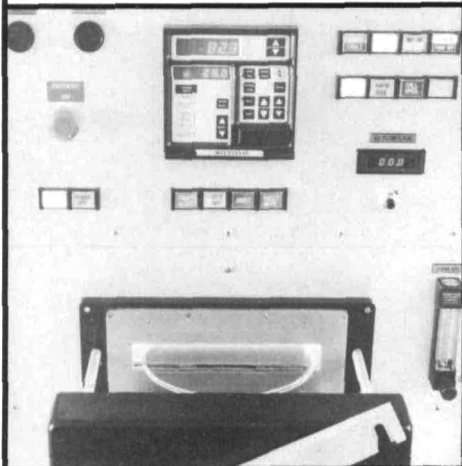
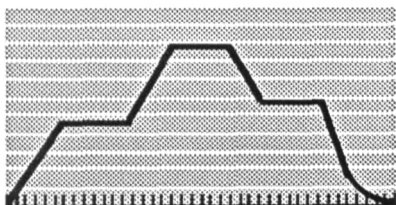
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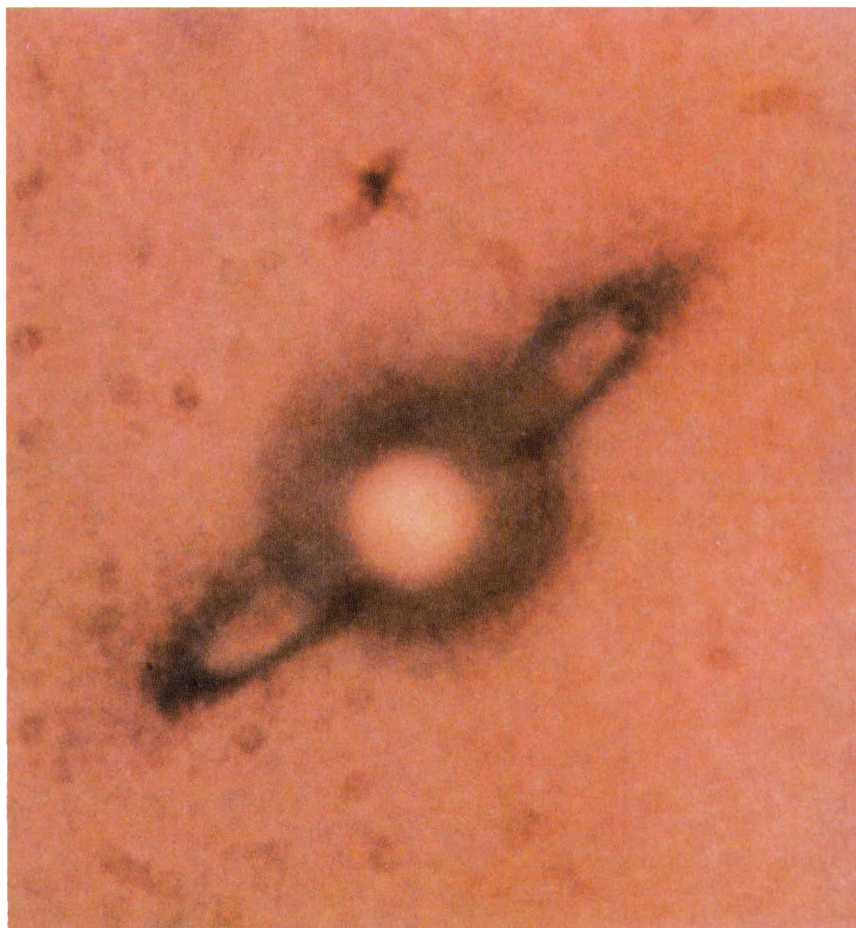
- Reduced Pressure (1×10^{-6} Torr)
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Figures appearing in the EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated to the original meaning. Submissions of candidate figures are welcome and should include a complete source citation, a photocopy of the report in which it appears (or will appear), and a reproduction-quality original drawing or photograph of the figure in question.



This month we again stretch one of the criteria applied to submissions to EDITOR'S CHOICE. Normally we prefer figures that have or will appear in a retrievably published article or report. Materials research, however, is often close enough to the marketplace to inhibit full release of technical data. Such is the case with the figure above submitted by R.J. Butchko and D.M. Brandelik of Science Applications International Corporation. Their laboratory has been investigating the optical properties of liquid crystal droplets dispersed in a polymer matrix—a composite with potential value as an electro-optical switch, for example. Such composites are formed through phase separation from polymer and liquid crystal solutions (see B.G. Wu et al., *J. Appl. Phys.* 62 (9) (1987) p. 3925-3931). This optical micrograph, taken with crossed polarizers, shows one few-micron-sized LC droplet in a matrix cured with ultraviolet radiation. Its yellow cast is caused by birefringence. The dark halo and ringlike tails are optical artifacts of stresses developed in the matrix on curing and lend a distinctly astronomical flavor to the image.