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Publisher *Taylor & Francis*

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## Liquid Crystals Today

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713681230>

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To cite this Article (1997) 'Liquid Crystals Today', *Liquid Crystals Today*, 7: 4, 1

To link to this Article: DOI: 10.1080/13583149708047683

URL: <http://dx.doi.org/10.1080/13583149708047683>

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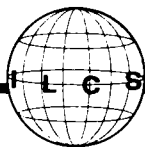
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# Liquid Crystals

Volume 7, No. 4, December 1997

**TODAY**

ISSN: 1358-314X

## EDITORIAL

### Liquid Crystals Today

Members of the International Liquid Crystal Society and other readers will be aware that *Liquid Crystals Today* has been published as a joint venture with Taylor & Francis Publishers since the beginning of 1995. This arrangement has allowed the ILCS to keep membership fees to a minimum, while maintaining a regular high quality news letter for its members. The initial agreement with Taylor & Francis was for a period of 5 years, which comes to an end in 1999, and it is appropriate to begin a review of *Liquid Crystals Today* and its function within the ILCS and the wider liquid crystal community.

Under the ByLaws of the ILCS, the Society does not publish original scientific research, but over the years since its inception in 1990, *Liquid Crystals Today* has published many review and feature articles of high quality, as well as news items and book reviews. Viewed as a scientific publication in the liquid crystal arena, *Liquid Crystals Today* is of course small, having a present annual size of 64 pages. However in terms of circulation and readership, *Liquid Crystals Today* is significant. Circulation is 1000–2000, and because of its modest size, most issues will be read cover to cover. If liquid crystal scientists wish to communicate their ideas to a wide audience, who will actually read their articles, then *Liquid Crystals Today* provides a highly effective vehicle. Effective and widespread communication should be the objective of all scientists, but in the new world order the scientific community is less confident, and is now obsessed by assessment. Authors will only publish material in journals that make a maximal contribution to the assessment, often through the citation index. *Liquid Crystals Today* does not have a citation rating, although perhaps it

should, but its great strength is that its articles are actually read, and many are kept for reference.

So the questions to be addressed by the Editorial Board of *Liquid Crystals Today* and the Board of Directors of the ILCS are 'Does *Liquid Crystals Today* have a future?', and if so 'What form will it take after the year 2000?' Of course these questions have to be answered both in the contexts of developments in publishing, and the future of liquid crystal science generally. The review will take place over the coming months, culminating in a discussion paper at the next ILCC in Strasbourg 1998. If the readers have any views on the future of *Liquid Crystals Today*, then they are invited to submit them to the editor.

This issue of *Liquid Crystals Today* is the last for 1997, and the Editor wishes all readers the best of liquid crystal activities for next year as the millennium approaches. Perhaps next year is the time to reorder our scientific priorities, and if you seek wide circulation and informed readership for your liquid crystal article, why not send it to *Liquid Crystals Today*. Articles are of course refereed before publication by members of the Editorial Board or other distinguished scientists.

### In this Issue

Morphology Development in Liquid Crystal/Polymer Mixtures .....	1
Glenn H. Brown Prizes .....	7
FLC 97 .....	8
17th International Liquid Crystal Conference .....	9
Liquid Crystal Outreach .....	11
Professor Frank M. Leslie .....	12
Biaxial Nematics .....	13

## Morphology Development in Liquid-Crystal/Polymer Mixtures

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**D**ispersions of a small amount of polymer in a liquid crystal matrix (polymer-stabilized liquid crystals, or PSLCs) [1–3] have shown considerable promise for liquid crystal display applications [4–6], in large part because of the polymer networks that form [7–10]. These networks have high surface areas and consequently tend to stabilize liquid crystal order efficiently, even at low concentration. There are now several experimental studies of the effects of various factors on the morphology of the networks [10–12]. For example, the networks evolve from dilute bead-like structures (see figure 1(a)) to dense, cross-linked fibrillar networks (see figure 1(b)) as a function of curing time [12]. To date, however, little is understood theoretically about the factors that control the morphology of the networks. Understanding these systems is difficult because the fabrication of liquid-crystal/polymer dispersions involves several non-equilibrium processes. These materials are typically made by photopolymerization of monomers dissolved in an ordered phase of the liquid crystal

*(continued on page 2)*