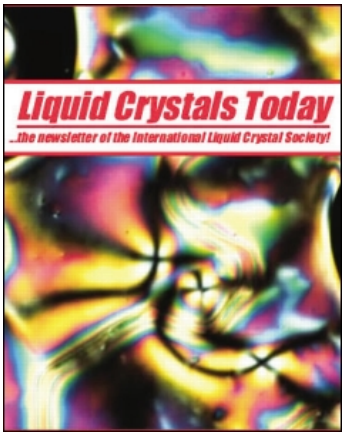

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FORTHCOMING MEETINGS

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FORTHCOMING MEETINGS

DATE:	CONFERENCE:	VENUE:	CONTACT:
1993			
31 Aug — 3 Sept	Euro Diplay 93 — 13th International Display Research Conference Seminar & Exhibition	Strasbourg, France	*Janine Verdez,* EURODISPLY '93 Secretariat, CNET/LAB/OCM/TEP 22301 LANNION FRANCE FAX: 33-96-05-34-31
18 — 22 Sept	2nd Conference on Liquid Matter	Firenze, Italy	*Dr Marco Zoppi,* Ist. di Elettronica Quantistica, Consiglio Nazionale delle Richerche, Via Pantiatichi, 56/30 1-50127 FIRENZE, ITALY Fax: 39-55-414612
27 Sept — 1 Oct	Europhysics Conference on Macromolecular Physics 1993: Transitions in Oligomer & Polymer Systems	Ulm, Germany	*Prof Dr H G Kilian,* Universität Ulm, Experimentelle Physik, Albert-Einstein Allee 11, D-7900 ULM, GERMANY FAX: 49-731-502-3036
28 Sept — 1 Oct	FLC '93, Tokyo: Fourth International Conference on Ferroelectric Liquid Crystals	Tokyo, Japan	*Prof Atsuo Fukuda,* Tokyo Inst. of Tech., Faculty of Engineering, Dept of Org. & Polymeric Materials, O-okayama, Meguro-ku, Tokyo 152, JAPAN Fax: 81-3-3748-5369
4 — 8 October	V International Meeting on Optics of Liquid Crystals	Lake Balaton, Hungary	*Dr I Janossy,* Central Research Inst. for Physics, H-1525 BUDAPEST 114, PO Box 49, HUNGARY Fax: 36-1-169-5380
1994			
3 — 8 July	15th ILCC: 15th International Liquid Crystal Conference	Budapest, Hungary	*Dr Agnes Buka,* Research Institute for Solid State Physics, Hungarian Academy of Sciences, H-1525 BUDAPEST, PO Box 49, HUNGARY Fax: 36-1-169-5380
6 — 9 September	International conference on Liquid Crystal Polymers	Beijing, P R China	*Dr X J Wang,* Beijing ERC of LC Technology & Dept of Chemistry, Tsinghua University BEIJING 100084, P R CHINA FAX: 86-1-2564372

Concluding remarks on the impact of STM and AFM on our knowledge of liquid crystals

The STM and AFM are able to provide information about molecular environments not directly observed before, on both the intermolecular and intramolecular scales. From the STM one obtains atomic topography when electronic structure coincides with atomic structure. From the AFM one obtains maps of molecular topography when local material properties, such as elasticity, coincide with molecular structure.

Both the STM and AFM are still in a stage of continuous development and change, However future developments will rely in large part on the input from other scientific disciplines, such as catalysis, optics, tribology and surface science. Significant advances will be made when scientists from outside the field of STM and AFM pose their own scientific challenges to operators of these instruments, within collaborative studies, to arrive at a common goal of understanding molecular behaviour.

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References

[1] A review of STM and AFM to organic materials that includes background information, extensive references, and broad coverage of liquid crystals: J Frommer, *Angewandte Chemie*, International Edition, English, **Vol 31**, pp 1298-1328 (1992).

[2] J Spong, L LaComb, M Dovek, J Frommer, *J. de Phys.*, **50** (1989), 2139.

[3] J Foster, J Frommer, *Nature*, **333**, (1988), 542.

[4] D Smith, H Hörber, C Gerber, G Binnig, *Science*, **245** (1989), 43; D Smith, J Hörber, G Binnig, H Nejoh, *Nature*, **344** (1990), 641.

[5] G Brownsey, A Leadbetter, *Phys. Rev. Lett.*, **44**, (1980) 1608; A Leadbetter, J Frost, J Gaughan, G Gray, A Mosley, *J. de Phys. France*, **40**, (1979) 375.

[6] W Mizutani, M Shigeno, Y Sakakibara, K Kajimura, M Ono, S Tanishima, K Ohno, N Toshima, *J. Vac. Sci. Technol. A*, **8**, (1990), 675.

[7] Y Iwakabe, M Hara, K Kondo, K Tochigi, A Mukoh, A Yamada, A Garito, H Sasabe, *Jpn. J. Appl. Phys.*, **30**, (1991), 2542; *ibid*, **29** (1990), L2243; M Hara, Y Iwakabe, K Tochigi, H Sasabe, A Garito, A Yamada, *Nature*, **344**, (1990), 228.

[8] Y Iwakabe, M Hara, K Kondo, S Oh-hara, A Mukoh, H Sasabe, *Jpn. J. Appl. Phys.*, **31**, (1992), L1771.

[9] J Foster, J Frommer, J Spong, *Proc. SPIE*, **1080**, (1989), 200; D Smith, *J. Vac. Sci. Technol. B*, **9**, (1991), 1119.

[10] R Overney, E Meyer, J Frommer, H Güntherodt, G Decher, J Reibel, U Sohling, *Langmuir*, **9**, (1993), 341. ❑

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