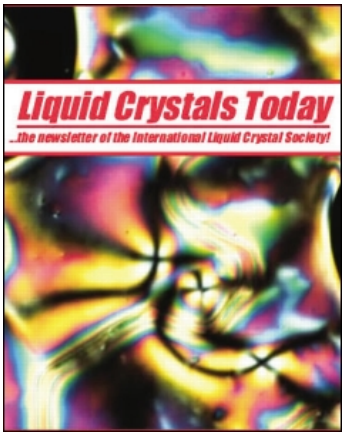

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The George Gray Laboratories, University of Hull

John Lydon[a]
[a] University of Leeds,

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possibilities for thermooptical and photooptical image recording on thin polymer films under the action of laser radiation. This approach offers new opportunities for the local modification of the optical properties of polymeric materials, and for the development of reverse photooptical media for optical data recording, reproduction and storage.

The scientific activities of Professor Shibaev and coworkers are acknowledged world-wide. For his scientific and pedagogical activities, Professor Shibaev was awarded the State Prize of the USSR (1985), and he has been granted the Soros Professorship on four occasions (1996, 1997, 1998 and 1999). This new winner of the Freederiksz Medal is a progressive modern scientist, and an open, kind and amiable person, a creative organizer and a talented teacher for a new scientific generation.

Professor Shibaev with his Freederiksz Medal and Diploma.

Alfred Saupe (Max-Planck Institute, Halle, Germany)

For all scientists involved in the study of liquid crystals, the name of Alfred Saupe is a legend. This well-known scientist is closely associated with the development of the modern physics of liquid crystals. Alfred Saupe started his research as a specialist in NMR spectroscopy. In his efforts to improve the technique and to enhance the characteristics of NMR spectra, he suggested that nematic liquid crystals could be used as ordered solvents for the solute molecules under investigation. This research then led him to study the physics of the liquid crystals themselves. Together with Professor W. Maier, Alfred Saupe advanced the first microscopic theory of the ordering of nematics and, since that time, this theory has taken the names of Maier and Saupe. Even though the theory, based as it is on a mean field model, is rather crude, it has played an important role in the development of the theory of liquid crystals. It has allowed one to understand the nature of the nematic to isotropic phase transition and to characterize the effect of the order parameter on the properties of nematics. A detailed description of the Freederiksz phenomenon, the determination of elastic constants and rotational viscosities were also great contributions of Alfred Saupe to modern liquid crystal science.

Professor Saupe is the author of many distinguished works in various areas of liquid crystals. Even in the 1980s, he advanced a correct phenomenological theory of biaxial nematics and proposed the fundamentals for their experimental investigation. In recent years, Alfred Saupe and his coworkers have performed interesting work in the field of lyotropic nematics. The team headed by Professor Saupe at the Liquid Crystal Institute, Kent State University, USA, have found biaxial nematic phases in lyotropic liquid crystals. They have also worked out methods for the estimation of order parameters from data on electrical properties, and this team was the first to measure the temperature dependence of elastic constants.

In the area of the physics of liquid crystals, there are few, if any, that can match the achievements of Professor Saupe.

PEOPLE IN THE NEWS

The George Gray Laboratories, University of Hull

A Report by John Lydon, University of Leeds

February 11th dawned clear and bitterly cold. The Pennines were white with Christmas card icing. The sky was blue. The sun was shining. God was clearly in his heaven and Blondie were back at number one, as representatives of the UK liquid crystal scene gathered at the University of Hull for a ceremony to mark the naming of the new organic chemistry laboratories after George W. Gray. The ceremony involved the unveiling of a plaque by the Vice Chancellor (Professor D. N. Dilks), followed by an afternoon of three lectures. The first, a tour of reminiscence by George Gray, outlined his early scientific life—how he narrowly escaped a career in the oil industry in the Middle East, and the events leading up to the synthesis of pentylcyanobiphenyl. The point he made about his gratitude to the University for giving him space and freedom to develop his liquid crystal work was well taken. The second talk, by Steven Ley of Cambridge University, described the

Professor George Gray (right) and the Vice Chancellor of Hull University (Professor D. N. Dilks) at the naming of the George Gray Laboratories.

synthesis of okadic acid. This was an impressive example of the power of modern organic synthetic chemistry. The third talk from John Goodby outlined some of the more recent liquid crystal interests at Hull, including smectic-C materials, and then concentrated on a new and promising class of mesogens: the liposaccharides.

The occasion recalled the trail-blazing collaboration between the Department at Hull and RSRE (now DERA) and many key figures from that period attended, including Cyril Hilsum, Mike Clark (now at Unilever), Peter Raynes (now at Oxford University) and Damien McDonnell. The take-home message from the day's celebrations was that blue sky research can change the world, but scientific innovation cannot be planned. Applications spring up where least expected, and a wise system creates the fertile ground for young researchers to explore their own ideas. It is also usually wise to keep idols at arm's length: the great are often insufferable at close quarters. Newton, for example, is famously said to have been the second most unpleasant person to be born in Grantham. However, there are exceptions, and there was great pleasure that the talents of George Gray and his scientific success had been recognized by many honours. To misquote Mark, a chemist is often not without honour, except in his own country, and to be recognized on your own ground in this way (especially in Yorkshire) is clearly an outstanding mark of appreciation. For those who remember the poster which used to decorate the back of George Gray's office door two decades ago, it was strangely appropriate that Debbie Harry should be back on top.

MEETING REPORT

On the European Conference on Liquid Crystals ECLC99

25–30 April 1999, Hersonissos, Crete, Greece

The series of European Liquid Crystal Conferences began in 1991 in Courmayeur, Italy, and was the result of a merger between the Liquid Crystal Conferences of the Socialist Countries of Eastern Europe with the Winter Liquid Crystal Conferences and Workshops that had been running for a number of years. This year's meeting was the 5th in the series of biannual conferences, and it was a departure from tradition to deny the participants the opportunities of winter sports. However, the selection of Crete for the venue provided other distractions such as the sun, the sea and above all the history and culture of Crete. Europeans tend to look to mainland Greece as the source of their culture and civilization, but the Minoan civilization was more than 2000 years in advance of Greece, and so it is proper for European science to pay homage to its Cretan roots.

Although European in its description, the ECLC99 like its predecessors was thoroughly international, with participants from all over the world, including scientists from 24 European countries. Organized by the University of Patras and the National Centre for Scientific Research 'Demokritos', ECLC99 provided a forum for the discussion and presentation of the latest liquid crystal research from all areas of the subject. Each of the four invited lectures gave a stimulating perspective on a particular topic of current interest. **C. Tschierske** (Halle) gave an account of the importance of microsegregation for mesophase formation, especially with respect to the formation of columnar phases from calamitic molecules. If groups such as rigid aromatic cores, lipophilic chains, alkyl chains, and perfluoroalkyl chains are combined in a single molecule, the incompatible segments separate into microdomains resulting in translation organization of the molecules to form smectic and/or columnar phases. Another aspect of the chemistry of liquid crystals, described in the invited talk by **K. Akagi** (Tsukuba), was the use of chiral liquid crystals as solvents or mediating phases for asymmetric synthesis. This long-sought-after goal seems to have been achieved in the catalytic synthesis of helical fibrils of polyacetylenes prepared in a chiral nematic solvent. The helicity of the polyacetylene chains was found to depend on the pitch sense of the nematic solvent. Another use of liquid crystals in the pursuit of fundamental research was reported by **C. Garland** (MIT). In this invited talk, the behaviour of liquid crystals on random surfaces such as silica aerogels was described. Careful calorimetric studies have revealed two regimes of behaviour, depending on the density of the aerosils, which have stimulated new theoretical work. The invited talk by **Helmut Brand** (Bayreuth) brought some much needed order to the categorization of the plethora of ferro-, ferri- and antiferro- electric phases formed in tilted smectic phases. Consideration of symmetry identifies a number of possible phase types, which help to understand recent experimental observations on ferroelectric phases formed from achiral and banana-shaped molecules.

During the Conference, tribute was paid to Professor Pier Luigi Nordio, who tragically died in October 1998. Professor Nordio (Padova, Italy) was a member of the Scientific Committee of Conference, and his research and scientific wisdom was widely respected throughout Europe and the rest of the world. To honour the memory of Professor Nordio, a special lecture was given by one of his recent students and research collaborators from his Department at the University of Padova, Dr Antonino Polimeno.

Some of the topics introduced by the invited talks, and many others, were explored in a further 50 oral presentations and more than 300 posters. One tradition of the European conferences is the absence of parallel sessions, and this allows delegates to be exposed to developments in areas outside their own specialities. It is this cross-fertilization between areas that often leads to the most significant research advances. At the end of the Conference Professor George Gray had the unenviable task of summarizing the scientific content of the meeting, and assessing its impact. In his remarks, Professor Gray observed that no fundamental breakthroughs had been exposed at the meeting, but special mention was made of the invited talks by Tschierke and Brand. From the contributed talks, the new X-ray technique reported by P. Barois was identified as being of special importance. This method analyses the polarization of resonant X-ray scattering from free-standing films, and seems to have considerable promise in the structural studies of smectic films, especially those with superlattices such as chiral and ferroelectric SmC phases. Another contributed talk that was highlighted was by Lagerwall (Göteborg), who presented convincing evidence that the 'thresholdless antiferroelectricity' recently observed could be explained as field-induced switching of twisted SmC* layers.

During the conference, an open forum on organizational issues of ECLCs was held, co-chaired by Professor Martin Copic (Chairman ECLC 95, Bovec), Professor Roman Dabrowski (Chairman ECLC 97, Zakopane) and Professor Demetri Photinos (Chairman ECLC 99, Crete). The following points were agreed upon:

1. The ECLCs will continue to be held on a biannual basis during the winter/spring period.
2. The conferences will be organized by European scientists. The participation of