

Physical aspects of polymer science

The papers in this issue of *Polymer* were among those presented at the 15th Biennial Meeting of the Polymer Physics Group, held in Leeds on 9–11 September 1991 on the subject of 'Physical aspects of polymer science'. The Polymer Physics Group is a joint group of the Institute of Physics and of The Royal Society of Chemistry. It was founded in 1964 (as the British Polymer Physics Group) to provide a focus and forum for the burgeoning research activity in the properties of macromolecular systems accompanying the introduction of stereospecific polymers and the discoveries of lamellar chainfolding. This remains its essential role, in complementary partnership nowadays with the Macro Group which addresses more chemical concerns. In this capacity it organizes by itself, or with others, conferences on timely and salient topics concerned with polymers. One example was the successful three-day meeting held in Bristol in April 1991 to mark the retirement of Professor Andrew Keller. A similar conference, to mark the 65th birthday of Professor Ian Ward, will be held in Leeds from 21 to 23 April 1993.

However, the principal activity of the group is to hold the Biennial Meeting in odd-numbered years. This conference continues to meet its major aim of bringing together in one venue, over a concentrated forty-eight hours, the whole of the UK interdisciplinary community, plus guests, interested in the physical aspects of polymer science. As such it provides the only regular occasion when the community meets as one body, presents its latest research to the constructive criticism of its peers and reforms a sense of partnership and shared purpose. Research students especially are encouraged to attend, partly to meet their contemporaries in other departments and universities, partly to become acquainted in person with people whose names would otherwise be familiar only as authors of papers, partly to place their work in a broader context, and above all to have the chance of presenting their research to their peers in the wider audience.

The 15th Biennial Meeting, held at the University of Leeds from 9–11 September 1991, fulfilled all these objectives. In all, one hundred papers were presented, four of which, following recent practice, were invited. Twenty-eight of the remainder were selected for oral

presentation on the basis of attempting to satisfy the needs for balance of subject matter and geographical origin but without regard to scientific content; the others were given as posters. The papers covered a very wide range of subjects, including high performance materials, deformation and fracture, blends, surface properties and adhesion, gels, liquid crystal polymers and elastomers, colloids, light and neutron scattering, piezo- and pyroelectricity, extensional flow, crystallization, morphology and new microscopies, namely multiple dark-field STEM, Raman and scanning tunnelling. The standard of presentation, both oral and poster, was at an impressively high level which made judging the two prizes awarded for the best presentation in each category by a young research worker no easy task. The papers in this special issue of *Polymer* were among those given at the Meeting.

The four invited speakers spoke on topics which were not only exciting and spread across the subject but also represented chosen themes. Our overseas guest, Professor A. J. Pennings, spoke on 'Solid-state properties and crystal structures of poly(L-lactide)' addressing the search for improved mechanical properties. Professor R. H. Ottewill contributed to a continuing theme within the Biennial Meeting, that of bringing to the community's attention work in a related discipline, hopefully to the benefit of both fields, when he spoke on 'The physics of colloidal dispersions'. The other two papers focused on active areas of UK polymer research. Dr A. M. Donald asked rhetorically 'Is there physics in food?', and then demonstrated that there was an abundance, of excellent texture and quality. Professor A. Keller, a founder member of the Group, was the fourth invited speaker. His title, 'Polymer crystallization: current status, latest results and new openings', though a valedictory address gave no quarter to the idea that he had recently retired, but pointed firmly to the future. That future will be reported at the 16th Biennial Meeting to be held at the University of Reading on 15–17 September 1993. Further details are available from the undersigned.

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