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Preface

The 10th International Conference on "Partitioning in Aqueous Two-Phase Systems: Advances in the Principles and Applications of Separation Science in Biotechnology, Cell Biology and Environmental Ion Recovery" was held at the University of Reading, U.K. from 10 through 15 August, 1997. The meeting was organised by the SCI (Society for Chemistry and Industry) Biotechnology and Separation Science and Technology Groups. The chairman was Juan A. Asenjo from the Centre for Biochemical Engineering and Biotechnology at the University of Chile and co-chair was Tim Treffry from the University of Sheffield. It was a truly international group with participants from more than 20 countries.

The conference provided a platform for presentation and debate on developments and major issues in the principles and applications of partitioning of proteins, metal ions and biological particles in Aqueous Two-Phase Systems. Theoretical, predictive, applied and engineering aspects of this emerging technology, which has found important applications, were presented and discussed. The meeting was a forum for interdisciplinary debate with active participation of academics and industrial colleagues.

The scientific programme was divided into sessions which included:

- interactions between liquid phase components and proteins; physicochemical properties and prediction of partitioning.
- metal ion extraction and environmental applications.
- applications of partitioning, separation of enzymes and recombinant proteins.
- biomedical applications; partitioning of cells, organelles and membranes.

- studies of phase separation and development of novel polymers.
- thermodynamics and modelling of partitioning.
- novel and complementary techniques.

Each session contained oral presentations and poster papers, the authors of which were given 5 min to orally present the key points of their posters to all participants. The standard of the presentations was generally very high and much discussion was generated. The presentation of Philip Lester from Genentech on their work for the industrial extraction (from *E. coli*), renaturation, separation and purification of a recombinant protein (Insulin Like Growth Factor), all carried out in a single step using a PEG/salt aqueous two-phase system, was very impressive and shows that this technology is ready to go full scale and commercial. After the banquet Professor Per-Ake Albertsson gave a very stimulating and entertaining 10th Anniversary lecture. The next conference will be held in 1999 in the USA and will be chaired by Robin Rogers (e-mail: robin@radar.ch.na.edu).

The contents of this special issue are a selection of papers which we hope will be a useful source of information to researchers in this rapidly expanding field and a stimulus for participating in future conferences.

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