FOREWORD

Polymer characterization is important both to makers and to users of polymers; consequently it is a continuing and dominant theme in macromolecular science.

Many (or most) of the practically-important aspects of polymer behaviour are not uniquely determined by the familiar simple average properties, measurement of which constituted "polymer-characterization" a decade or two ago. Advances in techniques of characterization can clearly facilitate more effective design and utilization of polymers and can also have important repercussions on mechanistic studies of polymerization, since every polymer chain carries a record of the events which occurred during its growth.

Characterization of a structure as complex as a synthetic polymer molecule is a formidable problem and it is hardly surprising to find that the techniques used are often highly specialised. It is therefore essential to hold symposia at which advances in technique are described and discussed. The present volume contains papers given at an international symposium of this kind held in the University of Durham, U.K., 13th - 17th July, 1981; the meeting had IUPAC sponsorship and was organized on behalf of the Pure and Applied Macromolecular Chemistry Group by Dr. Jim Feast. A wide range of techniques was covered by the distinguished speakers and in the opinion of the writer the collection of papers provides a valuable record of the current situation in polymer characterization. One can hardly fail to be impressed by the elegance and power of many of the experimental techniques, which, in a few instances, appear to have outstripped (no doubt temporarily) the available theoretical treatments.

C.H. Bamford

EDITORIAL

This issue of *Pure and Applied Chemistry* contains papers written by the invited speakers at a Symposium on Advances in Polymer Characterization held in Durham University during the period 13th-17th July, 1981. The meeting was organized, under IUPAC sponsorship, by the Pure and Applied Macromolecular Chemistry Group [Macro Group (UK)], this is a joint Group of the Royal Society of Chemistry and the Society of Chemical Industry. Twenty-four scientists accepted invitations to lecture at this meeting and twenty-one actually did so; unfortunately, three Russian scientists were unable to present their work during the meeting, but they have provided manuscripts of their papers which are included in this issue. The papers are published in the same sequence that they appeared in the Symposium programme.

The role of an Editor of a publication produced from 'camera-ready' manuscripts is inevitably somewhat limited. Large scale intervention at the editorial stage defeats one of the main objects of the production method, namely the reduction of the time between submission of papers and their publication. I have adopted the policy that the test of the 'correctness' of the language used is whether or not it conveys the meaning clearly. It is hoped that the reader will agree that all contributors to this volume have achieved that objective. I thank the contributors for producing their manuscripts so quickly and hope that my persistent reminders during the last year have not proved too irksome. The meeting was well received by the participants and speakers and was accompanied by much lively discussion. It is to be hoped that this volume will contribute to the advancement of the topic, any residual obscurities are, of course, the responsibility of the Editor.

W.J. Feast
Department of Chemistry
Durham University