Process Structuring of Polymers

P D Coates **FREng**
Professor of Polymer Engineering, Polymer IRC, School of Engineering, Design & Technology, University of Bradford, UK

Swinburne Award Lecture, Institute of Materials, Minerals and Mining

It is now accepted that processing of polymers is a key factor in deciding the final structure and hence properties of products. A feature of our laboratory is the extensive study of in-process measurements on polymers, aimed at understanding, modelling and control of polymer processing, with a view to control of product properties. Examples of in-process measurements related to control of structure will include high rate melt processing such as micromoulding of polymers and polymer nanocomposites, and solid phase orientation processing, for a range of applications including biomedical, optical, dental and pharmaceutical products.