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methods -- 5.9 Electron microscopy and associated techniques -- 5.10 Conclusion -- 5.11 Less common thermal analysis techniques -- 5.12 Problems -- References -- 6 Problem solving and applications of thermal methods -- List of examples -- Problems/Solutions -- 6.1 Inorganic materials -- 6.2 Polymeric materials -- 6.3 Fine chemicals and pharmaceuticals -- 6.4 Other materials -- References -- Appendix: Solutions to problems in Chapters 1-5.

Sommario/riassunto

The wide range of applications of thermal methods of analysis in measuring physical properties, studying chemical reactions and determining the thermal behaviour of samples is of interest to academics and to industry. These applications prompted the writing of this book, in the hope that the descriptions, explanations and examples given would be of help to the analyst and would stimulate the investigation of other thermal techniques. Thermal studies are a fascinating means of examining the samples and the problems brought to us by colleagues, students and clients. If time allows, watching crystals change on a hot-stage microscope, or measuring the properties and changes on a DSC or TG or any thermal instrument can be a rewarding activity, besides providing valuable analytical information. This book started from a series of lectures delivered at Kingston University and at meetings of the Thermal Methods Group of the United Kingdom. The collaboration and information supplied to all the contribu- tors by colleagues and instrument manufacturers is most gratefully ack- nowledged, as are the valuable contributions made at meetings of the International Confederation for Thermal Analysis and Calorimetry (ICT AC) and at the European Symposia on Thermal Analysis and Calorimetry (ESTAC).