



ELSEVIER

International Journal of Pharmaceutics 179 (1999) 139

**international
journal of
pharmaceutics**

Editorial

The Thermal Methods Group Collection

Graham Buckton

University of London Centre for Materials Science School of Pharmacy London WC1N 1AX UK

In November 1997 the Thermal Methods Group of the Royal Society of Chemistry held a 1 day meeting on 'Thermal Analysis of Pharmaceuticals'. The programme was put together by Professor Jim Ford from Liverpool John Moore's University, and the meeting was held at SmithKline Beecham's research facility in Harlow, UK. A large number of people attended showing that physical characterisation in general, and thermal analysis as a particular sub set of that theme, is seen as being important to the pharmaceutical science community.

Based on the success of this meeting we decided to collate a series of mini reviews related to the talks that were given. A tight deadline was set for publication, but due to excessive workloads and a number of personal tragedies certain authors have had to withdraw, or have been delayed in submitting their manuscripts. It is now September 1998, some 10 months after the meeting, and at last it is possible to present the collection of reviews. The term 'mini review' which had been the original

intent is now inappropriate in some cases, as certain works have become more comprehensive on paper than they were at the Thermal Methods Group meeting. The collection includes a description of the exciting opportunities for the use of isothermal microcalorimetry in stability studies. There is a description of the technique of dynamic mechanical analysis, an approach which yields valuable information but which seems to be surprisingly under used. The review on glass transition temperature should be of great interest to many in the pharmaceutical community. Thermal analysis of hydrophilic matrix systems has been key to the current understanding of these systems and this subject is covered. There is also a review of techniques used to study disruption of the crystal structure of pharmaceuticals, with reference to lactose as a model material, written by myself.

Graham Buckton
September 1998