

Book Review

For Better Thermal Analysis and Calorimetry. Edition III (1991)

John O. Hill (editor)

International Confederation for Thermal Analysis (ICTA – Secretary: Prof. S. Yariv, Department of Inorganic and Analytical Chemistry, The Hebrew University, Jerusalem 91904 Israel), 1991, viii + 93 pp.

'For Better Thermal Analysis', which aimed at promoting good practice in thermoanalytical studies, as well as publicizing ICTA and its activities, was first produced in 1977 by Prof. G. Lombardi, Rome, as a joint publication of ICTA and the University of Rome. Both it and a second revised edition (1980) were found so generally useful by thermal analysts that, despite large printings, they have been out of print for many years. Council of ICTA, therefore, commissioned Dr. J. O. Hill (then of Australia, now of Singapore) to compile a new updated edition that would also include calorimetry. The present brochure, in compiling which Dr. Hill was supported by Dr. J. P. Redfern (UK), Prof. G. Lombardi (Italy) and Prof. S. St. J. Warne (Australia) as Advisory Committee, is the result.

At the time of writing, copies have been distributed to ICTA members only – and this is fortunate, as some gremlins seem to have caused the centre section to be so wrongly paginated and arranged that it is unintelligible. A correctly paginated section will be distributed to ICTA members in due course and it is believed that some remedial section will be taken before copies become available to the public: consequently, this review is written on the basis of correct pagination. For those unfortunate enough to have only the version issued to ICTA members, the correct pagination of pp. 37–50 is 49, 48, 47, – 45, 42, 43, 44, 41, 39, 38, 37, –, the correct pages 40 and 50 being completely omitted. As it stands, this brochure might well qualify for inclusion in the Guinness Book of records!

The subject-matter is presented under two main headings - namely, 'Thermal Analysis and Calorimetry Data Handbook' (53 pp.) and 'What is ICTA?' (39 pp.). The second details essentially how ICTA attempts to assist the practising thermal analyst and calorimetrist by describing the origin, structure, activities, committees, awards and publications of ICTA with appendices listing the membership of some component bodies, the societies affiliated to ICTA, the Statutes of ICTA, etc. This succeeds in giving the reader an excellent overview of what ICTA does and of the work performed by the various committees, the terms of reference of which are specified for the first time. There seems to be some doubt, however, whether or not the Chairman of the Organizing Committee is a member of Council (cf. p. 37,

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lines 2–1 from foot, and p. 78, last line, with the diagram on p. 59). It is also very difficult, because all headings are given the same weight, to distinguish paragraphs from subparagraphs in the section on the Scientific Commission (pp. 60–67): indeed, one might ask why awards given by Affiliated Societies should appear here?

The 'Data Handbook', which comprises five sections along with appendices listing instrument suppliers and correlating energy units, will undoubtedly be the most generally useful. The history section (3 pp.), which lists references to books and articles where relevant information can be found, seems fairly complete, at least so far as thermal analysis and the English language is concerned. The nomenclature section (9 pp.) gives reference to all ICTA and IUPAC recommendations for thermal analysis nomenclature in the English language and reproduces these recommendations on symbols. However, the major part is occupied by a provisional document that has yet no ICTA or IUPAC backing and merely indicates how technique names and definitions might possibly develop in the future. This reviewer cannot understand why this document should appear in, of all things, a 'Data Handbook' – especially when definitive recommendations on apparatus and curve nomenclature are nowhere mentioned. References to thermal analysis nomenclature in some languages other than English are given and a sub-section on calorimetry nomenclature is included – oddly, under the heading 'Conference Proceedings'! The remaining sections are excellent and extremely informative. That on standardization (6 pp.) describes all standard reference materials available for temperature and enthalpy calibration of thermoanalytical and calorimetric instruments and that on data presentations (4 pp.) reproduces ICTA recommendations for thermal analysis and quotes references for calorimetry. The section on literature (26 pp.) deserves special mention for its comprehensive nature, although it covers essentially only 1980–1990 (pre-1980 literature was listed in the second edition). The books and articles referred to span an enormous range of applications and disciplines and the editor has put all who use the brochure greatly in his debt by compiling such an exhaustive list of reviews.

In conclusion, the editor is to be congratulated for amassing so much material and for condensing it into such a compact publication: the only laxity seemed to be pp. 26–30, where inordinate space seemed to be given to 'Thermal Analysis Reviews and Abstracts' – presumably because it is ICTA's own publication. Perhaps one might suggest, however, that the next addition incorporate more material from languages other than English through the offices of several assistant editors in different countries. As to the publication itself, it leaves much to be desired. To cover, for example, is, to this reviewer, unattractive and uninviting when compared with Editions I and II and might have been designed with more sensitivity. Moreover, in addition to the transposition of pages and matters relating to headings noted above, there are minor errors of grammar and punctuation that suggest hasty publication and inadequate proof-reading. Production-wise, therefore, it is not a publication of which ICTA can be proud.

Dr. R. C. Mackenzie