Book Review

An Introduction to Macromolecules, by Leo Mendelkern. 2nd edn., Springer Verlag, New York, 1983, 161 pp.

The concentration of effort in the United States on polymer chemistry and technology is such that no excuse is needed for reviewing this second edition of Leo Mendelkern's book in Thermochimica Acta. The book provides students in natural sciences with an introduction to the structure and properties of macromolecular substances. The fact that Leo Mendelkern is the author is reflected by the style, presentation, and the care taken to produce explanations in such a way that new science students will comprehend and feel excited about the topic. The layout is entirely logical, an introduction followed by discussion on structural features and preparation. There then follow chapters dealing in some detail with chain structures, rubbers and glasses, crystalline polymers and fibers, and macromolecules of biological importance. In this second edition, many new polymer syntheses have been included. Of interest to those intending to use thermal analysis techniques and explain their results are the discussions on the thermal expansion behavior of polymers, the specific volume-temperature relationships for polymers, together with associated thermodilatometry data, and the discussion on the glass transition point. For somebody new to the polymer industry, intending to use thermal analysis techniques in say a quality control or a trouble shooting laboratory, this is just the book to provide the initial background to the subject framework of the polymer industry. In any case, it is one of those rare science books presented in such a way that it really makes good reading.

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