

## BOOK REVIEWS

**Addition Polymers: Formation and Characterization.** D. A. Smith, ed., Plenum Press, New York, 1968. 492 pp.

This textbook is aimed principally at students majoring in polymer science. It includes polymerization mechanisms, touches upon industrial processes, but is mostly concerned with characterization techniques: ways to estimate molecular weights—numerical work problems are a feature of this chapter—fractionation procedures, microstructure determinations, molecular conformation, and structure elucidation based on elasticity and swelling measurements. Examples from the literature of specific systems often are used to illustrate a point and experimental data occasionally are included to emphasize the utility of a particular approach. In short, every important aspect of polymer characterization is either discussed, mentioned briefly, or summarized in equation form.

Because of the perennial boundary conditions of space and price, some sections of the book are overly abbreviated, and the presentation occasionally is uneven: polymerization kinetics are based on differential equations in a manner easily grasped by undergraduates, but the section on light scattering employs electric- and magnetic-field vectors; magnetic resonance and infrared spectroscopy are summarized qualitatively, while the chapter on elasticity requires familiarity with the affine deformation, work function, and Gaussian, chains.

On balance, the book is a useful addition to the literature; and it will be beneficial to both students and practicing polymer scientists because it offers in a single volume the highlights of more specialized treatises in the field, furnishes definitions and concise descriptions of valuable techniques, and supplies exhaustive references for followup study.

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