in a single monomer reacts to form a polymer. A homopolymer is the product resulting from such a process.

Copolymerization would then be defined in an analogous fashion as any process wherein more than one monomer reacts to form a polymer. In this way, poly(ethylene terephthalate) would be considered a copolymer formed by copolymerization, polybutadiene a homopolymer formed by homopolymerization, and the styrene–maleic anhydride copolymer's classification would not depend on the fortuitous discovery that maleic anhydride is more reactive than originally thought.

This type of discussion is not simply an exercise in semantics. Patentability and certain other legal questions of vital interest to industry frequently hinge on exactly such definitions of basic terms. A recent celebrated case involved the question of whether, in polycondensates derived from ethylene glycol and terephthalic acid, the replacement of small amounts of terephthalic acid by isophthalic acid changed the homopolymer nature of the product.[16] Another case, in which I served as witness, hinged on whether a polydisperse polymer is a compound. Widely accepted definitions are, therefore, truly a great unfulfilled need. The International Standards Organization (ISO) and IUPAC have recently undertaken a critical re-examination of the definitions of about two dozen key polymer terms, and their reports will be awaited with great interest.

LITERATURE CITED

(1) "Webster's Third New International Dictionary," p. 1534, G. C. Merriam Co., Springfield, Mass., 1963.

(2) "IUPAC Report on Nomenclature in the Field of Macromolecules," *J. Polymer Sci.* **8**, 257 (1952).

(3) Fox, R. B., R. G. Beaman, N. M. Bikales, B. P. Block, W. E. Cohn, H. K. Livingston, K. L. Loening, A. Mercurio, and A. M. Schiller, *ACS, Div. Polymer Chem.*, Preprint **8**, (2), *e* (1967); *Macromolecules*, **1**, 193–198 (1968).

(4) *Modern Plastics* **54**, 232–235 (Jan. 1968).

(5) "New Polymers—An Economic Study," Skeist Laboratories, Inc., Livingston, N. J., 1969.

(6) Cooper, W., "Elastomers, Synthetic," in "Encyclopedia of Polymer Science and Technology," H. F. Mark, N. G. Gaylord, and N. M. Bikales, Eds., Vol. 5, p. 406, Wiley, New York, 1966.

(7) Textile Fibers Products Identification Act, U. S. Public Law **85-987** (1960).

(8) American Society for Testing and Materials, "Tentative Nomenclature Relating to Plastics," ASTM **D 883-64b T**, Philadelphia, Pa., 1965.

(9) American Society for Testing and Materials, "Tentative Abbreviations of Terms Relating to Plastics," **ASTM D 1600-64a T**, Philadelphia, Pa., 1965.

(10) Ham, G., "Copolymerization," in "Encyclopedia of Polymer Science and Technology," H. F. Mark, N. G. Gaylord, and N. M. Bikales, Eds., Vol. 4, p. 165, Wiley, New York, 1966.

(11) Flory, P. J., "Principles of Polymer Chemistry," p. 36, Cornell University Press, Ithaca, N. Y., 1953.

(12) Billmeyer, F. W., "Textbook of Polymer Science," p. 310, Interscience, New York, 1962.

(13) Tanford, C., "Physical Chemistry of Macromolecules," p. 4, Wiley, New York, 1961.

(14) Bikales, N. M., "Homopolymerization," in "Encyclopedia of Polymer Science and Technology," H. F. Mark, N. G. Gaylord, N. M. Bikales, Eds., Vol. 7, p. 507, Wiley, New York, 1967.

(15) Lang, J. L., W. A. Pavelich, and H. C. Clarey, *J. Polymer Sci.* **55**, S31–S32 (1961).

(16) *Chemical Week* **103**, 31 (Nov. 15, 1967).

ERRATA

In the article "Simple Representations of Structural Formulas of Zirconium Compounds" by Warren B. Blumenthal [J. CHEM. DOC. **9**, 135 (1969)], the structures at the end of column 1, page 135, for nitrogen at coordination No. 3 and 4 are in error. The correct representations are shown below.

Correct Representations

nitrogen at coordination no. 3 nitrogen at coordination no. 4