polysaccharides'' and ''synthetic materials.'' It was shown that polyelectrolytes are highly associated in solution. It was further suggested that ''some of the problems of the biochemist will be reduced to special problems in a broader field—that of polyelectrolytes in general.'' However, these colloidal electrolytes, such as bile salts, have already received much attention both from physical chemists and biochemists, and their properties are just as closely related to the other colloidal electrolytes excluded in the quoted definition of ''polyelectrolytes.''

It would seem that the introduction of such a term would merely lead to confusion in this well established field. The term polyelectrolytes is not self-explanatory and might seem to refer to polyvalent electrolytes or to those that give rise to a variety of ions.

In a previous paper the term ''chain electrolytes,'' which seems equally inapt, was coined (D. Edelson and R. M. Fuoss. *J. Amer. chem. Soc.*, 1948, **70**, 2832). Another partial term is that of ''long chain salts'' (P. F. Grieger and C. A. Kraus. *J. Amer. chem. Soc.*, 1948, **70**, 3808), which is also inadequate.

It now seems impossible to draw a sharp distinction between polymerization and association. Aluminum soaps are one instance of a borderline case. During the past year some authors have classified these as association colloids because their particle size or molecular weight depends upon concentration. Several other authors prefer to regard them as ''polymers of high molecular weight formed by weak intermolecular links'' such as hydrogen bonds. Both groups are describing the same facts.

It would seem advisable to retain the thoroughly established name ''colloidal electrolytes'' for all such materials, even if there are subgroups such as organic, inorganic, organic-inorganic, some that are purely products of association, and others that are simple polymers, or associated polymers, etc. A subgroup such as polyelectrolytes might be useful if it were sufficiently sharply and narrowly defined to include only one definite class of materials. The term ''colloidal electrolytes'' clearly includes them all and emphasizes their interrelatedness and common properties.

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Erratum

May I point out a confusing error that occurs in the last line of Table 1 in our recent short paper (H. H. Plough and Madelon R. Grimm, ''Reversal to Penicillin Sensitivity in a Cysteine-requiring Mutant of *Salmonella*,'' *Science*, February 18, 1949, pp. 173–4). This should read: ''S. D. alone – – – – – – –,'' that is, seven minus signs instead of one minus and six plus signs. I had to correct in galley an error of the original manuscript under a similar heading five lines above, and I assume that somehow the last line got shifted too.

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Book Reviews

The chemistry of high polymers. C. E. H. Bawn. New York: Interscience, 1948. Pp. + 249. (Illustrated.) $4.50.

This is an excellent book and fills a real need in the field of polymer chemistry. While more advanced treatises on individual topics have appeared during the past few years, no other book has summarized the whole field of polymer chemistry so clearly and succinctly. The book is very readable and understandable but at the same time has neither sacrificed correctness nor oversimplified the problem.

The book is divided into the following seven chapters: Introduction: Nature and Types of Polymer; Condensation Polymerization; Addition Polymerization; Thermodynamics of Solutions of High Polymers; Size and Shape of Macromolecules; The Structure, Stereochemistry and Crystallinity of High Polymers; and Structure and Physical Properties of High Polymers. Each of these chapters is fairly complete and detailed, with the exception of the last, which is a rather brief outline of the physical properties of high polymers. Fairly extensive references to recent literature are included.

This book should be particularly valuable to the graduate student in chemistry who seeks a broad picture of the present status of polymer chemistry without the necessity of wading through four or five lengthy monographs on highly specific subjects. It also deserves a place on the bookshelves of research workers in the field of polymer chemistry.

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Lès richesses de la mer: technologie biologique et océanographique. (Encyclopédie Biologique, XXIX.) Noël Boudarel. Paris, France: Paul Lechevalier, 1948. Pp. 548. (Illustrated.) 1.500 fr.

The information collected in this volume should prove immensely helpful to the more curious fishermen along the French coasts and provide a strong stimulus to those with a bent toward natural history. In addition to short chapters on the origins and development of oceanography, the characteristics of ocean water and bottom, and the common terrestrial plants found along the seashore, there