



## Book Review

**Hydrocolloids: Part 1: Physical chemistry and industrial applications of gels, polysaccharides, and proteins. Part 2: Fundamentals and applications in food, biology, and medicine**, Edited by Katsuyoshi Nishinari, Elsevier Scientific B.V., Amsterdam, 2000. ISBN 0-444-50178-9; 980 pp. in 2 vols; Hardbound, NLG 750, Euro 340.34, USD 392.50

These two volumes present the proceedings of the 4th International Conference on Hydrocolloids held October 4–10, 1998, at Osaka City University. The volumes address a wide array of topics including: (a) the structure of gels and their temperature- and medium-induced transitions; (b) the production, structure, and physical properties of polysaccharides and proteins important in texture and viscosity control, gelation, emulsification, and foaming applications; (c) fundamental and industrial aspects of dispersions, emulsions, gels, and suspensions; (d) the structural and functional properties of biopolymer mixtures, especially those deriving from phase separation; (e) processing of hydrocolloids for food, cosmetics, and pharmaceutical applications with special emphasis on the effects of shear; (f) biomedical applications of hydrocolloids, especially hyaluronic acid; and (g) the role of hydrocolloids in nutrition and in determining textures and sensory perceptions in foods.

Volume 1 begins with an excellent review of short- and long-range interaction forces in aqueous biopolymer systems by J.N. Israelachvili. A similarly informative review of the commercially important food hydrocolloids by G.O. Phillips introduces volume 2. Most of the contributions report recent research on specific hydrocolloid systems. These can serve to acquaint the reader with current activity in the field. References to the recent primary literature of the field will be especially useful to the reader. Interspersed with these research reports are several excellent synoptic papers of broader interest.

The two volumes will be of greatest interest to persons currently working with hydrocolloids in the food, pharmaceutical, and personal products industries, or those who wish a condensed introduction to these fields. The books have been produced to a high standard of quality and are timely in content. They are especially recommended for industrial and university libraries in settings with current or contemplated interests in hydrocolloids.

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