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Book Reviews

**Food protein analysis: quantitative effects on processing**

R.K. Owusu-Apenten (Ed.); Marcel Dekker Inc., New York, 2002, x + 463 pp., ISBN 0-8247-0684-6, £185.00

Protein is a very important nutrient in our diet, as it is needed for cell growth, maintenance and repair. It is also important in the food industry as statistics show that of the 4 billion tons of food produced in 1988, on average 10% was purely protein-based foods. Foods such as meat and dairy products contain a higher protein content than soya beans, peanuts and cereals. Analysis of food protein content is by means of protein assays, of which there are numerous examples, each varying in their sensitivity, accuracy and reliability. There is however an approved reference method, the Kjeldahl method, which is the accurate method irrespective of the protein's physical state. Just to name a few protein assays, there is the Biuret assay which is widely used, and the Coomassie brilliant blue dye-binding assay. Protein assays are of economic and social interest, as they assist in (i) establishing a market value for protein-containing foods and (ii) providing consumers with the nutritional content they need.

*Food Protein Analysis: Quantitative Effects on Processing* is the only book that deals exclusively with protein analysis, focussing specifically on the quantitative analysis. It is divided conveniently into five parts with each part differing in nature. From the fundamental techniques to:

copper, dye-binding and immunological methods and finally to protein nutrient value, this complex book alone competes for many others. The 14 chapters contained within these five parts are introduced very well with each chapter thoroughly explaining how the method works, including the excellent use of chemistry and diagrams. With the exception of chapters 6 and 7, each chapter provides a specific protein assay, describing the principles, practices and expected results. Also it covers how the effect of processing milk through sterilisation, drying and storage, has an effect on the milk protein content.

Since food protein analysis is performed by thousands worldwide, this up to date book is an essential reference tool, highly recommended for researchers and workers in agricultural production as well as in wholesale and/or retail marketing. It is also of relevance to those in small businesses and research institutes, as well as both undergraduate and postgraduate students interested in this field, assuming graduate level chemistry and/or analytical biochemistry.

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