

Sweeteners: Alternative

Amy L. Nelson (Ed.); Eagan Press, St. Paul, MN, USA, 1999, 98 pages, ISBN 1-891127-11-X (£59)

Sweeteners uses have largely increased in the past 20 years. Nowadays they occupy a large portion of commercial space on supermarket shelves worldwide. These products are available mainly for people who are diabetic or who are looking for low calorie materials. Alternative sweeteners are produced to be used in several products ranging from cookies to soft drinks, in order to satisfy the consumers. Where conventional sugars such as glucose, fructose and sucrose are to be replaced by highly sweet alternatives, the fact that such alternatives often do not have the bulk that the conventional carbohydrates do, on account of their higher sweetening intensity per unit weight, must be borne in mind.

The book *Sweeteners Alternative* provides a range of chapters that describe an overview of approval processes, history of the synthetic and naturally occurring sweeteners, properties of high-intensity sweeteners, properties of sugar alcohols, and confectionery, bakery and other grain-based applications. This book also gives an up-to-date, clearly written and presented compendium equally of value as an essential reference tool. It can be highly recommended for scientists in all branches of the food industry and particularly the carbohydrate and carbohydrate replacement areas, as well as for students in the chemistry and biochemistry schools dealing with foods.

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Emulsifiers: Practical Guides for the Food Industry

Clyde E. Stauffer (Ed.); Eagan Press, St. Paul, MN, USA, 1999, ISBN 1-891127-02-0, 102 pages, (£59)

In the last few years the emulsifiers has been well applied in the food industry, improving such aspect as form and taste. Technically speaking, emulsifiers and surfactants are one and the same (“surfactant = surface-active agent”), but the word “emulsifier” has been used much more for food applications than the other processes. The production of those emulsifiers has been carried in chemical and microbial ways, the key molecular characteristics of a surfactant being that is amphiphilic. The lipophilic (or hydrophilic) part of

the molecule is more related to the non polar environment, and the hydrophobic part prefers to be in the aqueous (polar) part of the environment. These proprieties have been applied in order to improve the properties of bakery, dairy, dressing, sauces and beverages products. The modern need to develop, maintain and improve food technology still demands the understanding of complexities present in the formulation processes, and these are often overlooked. The quality of literature in the emulsifier field is very variable, but almost of the publications concern the physico-chemical studies of emulsifiers and their production. Thus there was a need for a general publication that would help a broad readership to understanding the basics of foods ingredients, application, and processes.

This book *Emulsifiers* introduces readers to the subject with seven chapters on different aspect of emulsifiers. Subsequent chapters describe emulsion, molecular organization, and application on food, bakery, dairy and nondairy, dressing and sauces and beverages. Practical troubleshooting advice for broad readership and technologists in all branches of the application is prominently featured. There are very short sets of references in each chapter, but the book has a glossary listing useful information on terms related to emulsifier.

Emulsifiers provides an up-to-date, clearly written and presented compendium, for broad readership. It is highly recommended for students for their initiation in the area of human nutrition and food processing.

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Scientific Unit Conversion. A Practical Guide to Metrication, 2nd ed.

F. Cardarelli; Springer, Berlin, 1999, xvi + 488 pages, ISBN 1-852-33043-0, £24.50

Books on the conversion of scientific units into their SI equivalents are rare in scientific literature. There are several specialised treatises on the subject as applied to certain areas of science and technology, which contain sections on the subject, supported by conversion tables. However, these tables are anything but exhaustive, and it is often necessary to consult sources in several very different areas in order to obtain the desired information. *Scientific Unit Conversion. A Practical Guide to Metrication* aims to ensure rapid and