

This volume is divided into 10 chapters ordered in stages, which first cover the history of whisky distillation, malt whiskies and grain whiskies. Malt whiskies are produced from malted barley so the total amount of enzyme used for the degradation of starch is given by the malt, whereas grain whiskies are produced from mixing non-malted cereals such as wheat or rice with some malted barley thus providing enzymes for cereal starch degradation. The distillation process can be single, double or even triple batched according to the whisky type (Malt or Grain) and is traditionally carried out in cylindro-conical copper pots. The type of distillation as well as the equipment used are important factors affecting the quality of whisky produced. The following chapters cover topics including yeast and fermentation, batch and grain whisky distillation, maturation and blending, distillation co-products, whisky analysis and finally the marketing of Scotch whisky. The production of whiskies continued to grow, reaching its peak during the Victorian era that lead to the production/blending of all types of whiskies to meet the demand. Nowadays, pure malt Scottish whiskies are considered as the most valuable products, although the market is still dominated by cheaper blended scotch whiskies.

$$\operatorname{div}(\sigma(T)\operatorname{grad} \varphi) = 0 \quad (1)$$

This volume could be further enhanced by the inclusion of some illustrative diagrams to assist in visualisation of processes and vessels used during whisky production. However, this volume is an excellent source of detailed information on the scientific aspects of whisky production, and is part of the *Handbook of Alcoholic Beverages Series*. It should be therefore appeal to all researchers with interests in distilled spirits, and the casual reader with interest in drinking such high quality products.

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E. Dickinson, T. van Vliet (Eds.), Food Colloids: Biopolymers and Materials, The Royal Society of Chemistry, Cambridge, UK, 2003 (x + 416 pp., £119.50 ISBN 0-85404-871-5).

Many food products are in the form of gels, foams and emulsions. Structurally, these are phase-dispersed systems containing proteins, lipids, and polysaccharides dispersed in water and air. Food scientists are therefore interested in food

colloid science as they aim to generate better and new food products by affecting the structure and taste of food. The use of innovative techniques and constantly improves the development of food colloid science. Therefore, it is important for food scientists to keep abreast of new innovations and studies happening in the field of food colloids.

Food Colloids, Biopolymers and Materials is the collection of the lectures presented at a European conference of the same name held in Wageningen (the Netherlands), and is divided into three main sections. It begins with an introductory chapter on new horizons for food structure research. The first section is composed of 12 chapters, which introduce the theory, techniques and selected case studies on gelation and aggregation. Topics covered in this section include the use of diffusing wave spectroscopy for measuring gel formation kinetics, pH-induced aggregation of whey proteins, and milk gelation. The second section contains 10 chapters that focus on emulsions, foams and interfaces. Topics in this section include sunflower/oil systems, static and dynamic properties of proteins at liquid interfaces, and the effect of ionic calcium on the flocculation and gelation of sodium caseinate. The final section contains 15 chapters covering biopolymer interactions, such as the effect of carbohydrate additives on spray-dried protein-stabilised emulsions, and the structural properties of aqueous starch dispersions. The concluding chapter summarises the past, present and future of study of food colloids.

This volume is part of the RSC Food Colloids series, and will be of interest to all researchers involved in the physicochemical characteristics of food colloid systems and their application.

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S.A. New, J.-P. Bonjour (Eds.), Nutritional Aspects of Bone Health, The Royal Society of Chemistry, Cambridge, UK, 2003 (xii + 755 pp., £49.95, ISBN 0-85404-585-6).

The skeleton is a remarkable organ that persists long after life is over. However, the skeleton undergoes remarkable changes in shape and structure during growth, and continual processes of removal and renewal throughout life. Nutrition

is one of the key factors, which controls all such processes. It has been discovered that diet plays an important role in the development and maintenance of bone health throughout life and in many clinical disorders.

Nutritional Aspects of Bone Health provides a structured and systematic, up-to-date account of relevant topics about how dietary components affect the skeleton. There are six core sections, which contain a total of 32 chapters. The first section discusses the fundamental areas of the epidemiology of osteoporosis, genetic and non-nutritional influences, and the influence of nutrition on other metabolic bone diseases. Section 2 focuses on the influence of traditional nutrients that are key to bone health protection and osteoporosis prevention, i.e. calcium and vitamin D. Details about the effects of protein and macrominerals (phosphorus, sodium and potassium) on bone are described in Section 3. The following section covers the recent developments of key ingredients for optimum bone health, including vitamin K, vitamin A, magnesium, trace elements, food groups, isoflavones, alcohol and caffeine. The core interactions between bone health and nutrition, genetics factors, physical activity, weight reduction, and eating disorders are

discussed in Section 5. The final section deals with fracture risk reduction, cost-effectiveness of nutritional supplements, and nutritional strategies for prevention and treatment of osteoporosis in populations and individuals.

This comprehensive volume is the first academic textbook on nutrition and bones. It is highly recommended for undergraduate and postgraduate students in medical or food science, and will also be of value to workers in medical and health promotion, and nutritional therapy.

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