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Sommario/riassunto

Sea cucumbers belong to the Phylum Echinodermata. There are more than 900 recorded species of sea cucumber of which more than 40 are edible. As a food source, sea cucumbers are rich in protein, low in fat, rich in collagen, sulfated polysaccharides, phospholipids, glycolipids, saponins and other functional components. Therefore, sea cucumbers have important nutritional and medicinal value. Growing awareness of these health benefits has promoted growth in marine aquaculture and processing technologies for the development of sea cucumber products for many applications.Novel perspectives of nutritional functions and processing technologies of sea cucumbers are defined in this book. The chemical structure and nutritional function of sea cucumbers are systematically reviewed. These include the functional/nutritional components, the endogenous enzymatic properties related to processing efficiency and product quality, and the efficient preparation technology of functional components. The traditional processing technology is presented as the background context to highlight the advances in new processing technologies including low-temperature cooking technology based on controllable negative pressure system, heat pump-hot-blast air combined drying technology, microwave sterilization of instant sea cucumber, collagen stabilization technology. The book finishes with the authentication of sea cucumber types and origin, quality standards, product quality control systems and food safety requirements.