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Nota di contenuto	Cover; Title Page; Copyright; Dedication; Contents; List of contributors; Foreword; Preface to second edition; Preface to first edition; Chapter 1 Introduction; Wall-forming materials; Core materials; Release triggers; Payload; Current approaches to encapsulation and controlled release; Entrapment in carbohydrate matrices; Complexation into cyclodextrins; Encapsulation in microporous matrices: physical adsorption; Encapsulation in fats and waxes; Encapsulation in emulsions and micellar systems; Encapsulation in coacervated polymers; Encapsulation using supercritical fluids Encapsulation into hydrogel matricesEncapsulation using flow-focusing technology; Overview of controlled-release systems; Matrix systems; Reservoir systems; Combination systems; Release mechanisms; References; Chapter 2 Encapsulation of edible active compounds using supercritical fluids; Supercritical fluid technology; Properties of supercritical fluids; Implementation of processes using SCFs: Basic considerations; Current industrial applications; Particle formation processes; SCFs as solvents; SCFs as antisolvents; SCFs as solutes; SCFs as propellants; Products; Single compound products

Co-precipitation and encapsulation processes: Carrier materialsEncapsulation of solid active compounds; Encapsulation of liquid active compounds; Case study: Encapsulation of lavandin essential oil; Encapsulation in water-soluble carriers; Encapsulation in water-insoluble carriers; Impregnation; Comparison with alternative encapsulation technologies; References; Chapter 3 Encapsulation by complex coacervation; Introductory comments; Complex coacervation background and terminology; Biopolymers and complex coacervation; Biopolymer structure and properties
Milk and vegetable protein denaturationReproducibility issues; Concluding biopolymer comments; Stabilization and solidification of complex coacervate capsule shells; Overview; mTGase treatment of complex coacervate capsule shells; Overview of current encapsulation protocols; Concluding comments; References; Chapter 4 Lyophilized liposomes for food applications: Fundamentals, processes, and potential applications; Introduction; Liposomes: Structure, production methods, and applications in foods; Formulation factors affecting liposome integrity after lyophilization
Influence of the lyophilization process parameters and technological factors on the lyophilized productConcluding remarks and future perspectives; References; Chapter 5 Microencapsulation of probiotics; Introduction to probiotics; Definitions, applications, and advantages of probiotics; Introduction to microencapsulation; Definition; Purpose of microencapsulation; Structural details of microcapsules; Materials used in the microencapsulation of probiotics; Factors affecting the microencapsulation effectiveness of probiotics; Methods used in microencapsulating probiotics
Extrusion technique for microencapsulation