Record Nr. UNINA9910144387803321 Autore Kerry Joseph Titolo Smart packaging technologies for fast moving consumer goods [[electronic resource] /] / Joseph Kerry, Paul Butler Chichester, England;; Hoboken, NJ,: John Wiley, c2008 Pubbl/distr/stampa **ISBN** 1-282-34316-5 9786612343162 0-470-75369-2 0-470-75368-4 Descrizione fisica 1 online resource (360 p.) Altri autori (Persone) ButlerPaul <1942-> 621.381046 Disciplina 658.5/64 Soggetti Food - Preservation - Research Consumer goods - Packing - Research Radio frequency identification systems - Research Packaging machinery - Research Packaging - Research Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Smart Packaging Technologies for Fast Moving Consumer Goods; Contents; Contributors; Preface; 1 Active Packaging of Food; 1.1 Introduction and Background Information; 1.2 Oxygen Scavengers; 1.2.1 ZerO2 ® Oxygen Scavenging Materials; 1.3 Carbon Dioxide Scavengers/Emitters; 1.4 Ethylene Scavengers; 1.5 Ethanol Emitters; 1.6 Preservative Releasers; 1.7 Moisture Absorbers; 1.8 Flavour/Odour Absorbers and Releasers; 1.9 Temperature Control Packaging; 1.10 Temperature Compensating Films; 1.11 Conclusions; References; 2 Active Polymer Packaging of Non-Meat Food Products; 2.1 Introduction 2.2 Bread and Bakery Products2.2.1 Elimination of Oxygen from Inside the Package: Oxygen Scavengers; 2.2.2 Inhibition of Mould Growth: Ethanol Emitters; 2.2.3 Other Smart Technologies for Bakery Products;

2.3 Fruits and Vegetables; 2.3.1 Slowing Down the Ripening Rate: Ethylene Scavengers; 2.3.2 Control of Gas Concentration: CO2

Controllers; 2.3.3 Other Smart Technologies for Fresh Produce; 2.4 Dairy Products: 2.4.1 Reducing Lactose and Cholesterol Content: Enzymatically Active Packages; 2.4.2 Oxygen Scavenging Films for Yoghurt; 2.4.3 Other Smart Technologies for Dairy Products 2.5 Fish and Seafood2.5.1 Removing Malodorous Compounds: Aldehyde or Aroma Scavengers; 2.5.2 Humidity Absorbers; 2.5.3 Other Smart Technologies for Fish Products; 2.6 Outlook and Future Developments; Acknowledgement; References; 3 Smart Packaging of Meat and Poultry Products: 3.1 Introduction: 3.2 Oxygen Scavengers: 3.3 Carbon Dioxide Scavengers and Emitters; 3.4 Moisture Control; 3.5 Antimicrobial Packaging; 3.6 Sensors; 3.6.1 Gas Sensors; 3.6.2 Fluorescence-based Oxygen Sensors; 3.6.3 Biosensors; 3.7 Indicators; 3.7.1 Integrity Indicators; 3.7.2 Freshness Indicators 3.7.3 Time-Temperature Indicators 3.8 Radio Frequency Identification; 3.9 Potential Future Applications for Smart Packaging with Meat Products; References; 4 Application of Time-Temperature Integrators for Monitoring and Management of Perishable Product Quality in the Cold Chain; 4.1 Introduction; 4.2 Time-Temperature Integrators; 4.3 Cold Chain Management; Acknowledgement; References; 5 Smart Packaging Technologies for Fish and Seafood Products; 5.1 Introduction: 5.2 What are the Parameters of Fish Quality?: 5.3 Mechanisms of Fish Spoilage: 5.4 On-pack Quality Indicators 5.5 Time-Temperature Integrators 5.6 Food Quality Indicators; 5.7 Overview: TTI versus FQI; 5.8 Modified Atmosphere Packaging (MAP); 5.9 Conclusion: Acknowledgement: References: 6 Antimicrobial Packaging for Food; 6.1 Background of Antimicrobial Packaging Systems for Food; 6.2 Governmental Encouragement; 6.3 Demand for Antimicrobial and Disinfectant Chemicals in the US Market; 6.4 History of Antimicrobial Packaging in Industry; 6.5 Antimicrobial Agents in Use for Commercialization; 6.6 Mechanism of Antimicrobial Packaging Systems 6.6.1 Incorporation of Antimicrobial Agents into the Polymer Matrix

Sommario/riassunto

Smart Packaging Technologies for Fast Moving Consumer Goods approaches the subject of smart packaging from an innovative, thematic perspective: Part 1 looks at smart packaging technologies for food quality and safety Part 2 addresses smart packaging issues for the supply chain Part 3 focuses on smart packaging for brand protection and enhancement Part 4 centres on smart packaging for user convenience. Each chapter starts with a definition of the technology, and proceeds with an analysis of its workings and components before concluding with snapshots of potential ap