

1. Record Nr.	UNINA9910816688203321
Titolo	Antimicrobial polymers // edited by Jose Maria Lagaron, Maria Jose Ocio, Amparo Lopez Rubio
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, c2012
ISBN	1-283-33749-5 9786613337498 1-118-15088-0 1-118-15087-2 1-118-15085-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (611 p.)
Altri autori (Persone)	LagaronJose Maria OcioMaria Jose RubioAmparo Lopez
Disciplina	668.4
Soggetti	Antimicrobial polymers Materials - Microbiology Plastics - Additives
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	Antimicrobial Polymers; Contents; Preface; Contributors; 1: Antimicrobial Packaging Polymers. A General Introduction; 2: Bacterial Resistance and Challenges of Biocide Plastics; 3: "Click Chemistry" to Derived Antimicrobial Polymers; 4: Chitosan and Chitosan Blends as Antimicrobials; 5: Thymol in Nanocomposites. A Case Study; 6: Bacteriocins in Plastics; 7: Antimicrobial Enzymes and Natural Extracts in Plastics; 8: Antimicrobial Peptides; 9: Recombinant Antimicrobial Peptides; 10: Novel Antimicrobials Obtained by Electrospinning Methods; 11: Silver- and Nanosilver-Based Plastic Technologies 12: Antimicrobial Plastics Based on Metal-Containing Nanolayered Clays13: Nanometals as Antimicrobials; 14: Titanium Dioxide-Based Plastic Technologies; 15: Tissue-Implant Antimicrobial Interfaces; 16: Characterizing the Interactions Between Cell Membranes and Antimicrobials Via Sum-Frequency Generation Vibrational Spectroscopy; 17: Gas-Based Antimicrobials in Active Packaging; 18:

Sommario/riassunto

The pioneering guide on the design, processing, and testing of antimicrobial plastic materials and coatings. The manifestation of harmful microbes in plastic materials used in medical devices and drugs, water purification systems, hospital equipment, textiles, and food packaging pose alarming health threats to consumers by exposing them to many serious infectious diseases. As a result, high demand for intensifying efforts in the R&D of antimicrobial polymers has placed heavy reliance on both academia and industry to find viable solutions for producing safer plastic materials. To
