Record Nr. UNINA9910456732103321 Autore Hu Jinlian Titolo Adaptive and functional polymers, textiles and their applications [[electronic resource] /] / Jinlian Hu Pubbl/distr/stampa London, : Imperial College Press Hackensack, N.J.,: Distributed by World Scientific, Pub. Co. Pte. Ltd., 2011 **ISBN** 1-62870-226-5 1-283-14820-X 9786613148209 1-84816-476-9 Descrizione fisica 1 online resource (416 p.) Disciplina 620.192 Soggetti Polymers Polymers - Industrial applications Textile fibers, Synthetic Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references (p. 369-383) and index. Nota di bibliografia Nota di contenuto Preface; Contents; Acknowledgements; Chapter 1 Introduction to Adaptive Polymers and Textiles; Chapter 2 Shape Memory Polymers; Chapter 3 Adaptive Polymeric Gels and Applications: Chapter 4 Adaptive Polymeric Particles and Applications: Chapter 5 Adaptive Textiles Using Adaptive Polymers; Chapter 6 Adaptive Polymeric Composites and Applications; Chapter 7 Adaptive Polymeric Nanofibre and Nanofilm; Chapter 8 Cosmetics Applications of Adaptive and Functional Polymers; Chapter 9 Medical Applications of Adaptive Polymers; Chapter 10 Special Adaptive and Functional Polymers and Their Applications Index Sommario/riassunto This volume covers the most updated studies and achievements in some adaptive and very functional polymers such as chitosan, cyclodextrin, dendrimer and hyper-branched polymers in terms of

principles of adaptiveness, properties, structure design and

characterization with an emphasis on their applications, particularly in textiles and related areas. Adaptive polymers include those which are responsive to different stimuli, namely, physical, mechanical, chemical, biological and combined with controlled and/or predictable behaviors. Although other materials are not excluded, the textiles describe