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Nota di contenuto	Polyesters / Adam L. Sisson, Michael Schroeter, Andreas Lendlein -- Biotechnologically produced biodegradable polyesters / Jaciane Lutz Lenczak and Glaucia Maria Falcao de Aragao -- Polyanhydrides / Avi Domb, Jay Prakash Jain, Neeraj Kumar -- Poly(orthoesters) / Jorge Heller -- Biodegradable polymers composed of naturally occurring amino acids / Ramaz Katsarava and Zaza Gomurashvili -- Biodegradable polyurethanes and poly(ester amide)s / Alfonso Rodriguez-Galan, Lourdes Franco, Jordi Puiggali -- Carbohydrates / Gerald Drager ... [et al.] -- Biodegradable shape-memory polymers / Marc Behl ... [et al.] -- Biodegradable elastic hydrogels for tissue expander application / Thanh Huyen Tran ... [et al.] -- Biodegradable dendrimers and dendritic polymers / Jayant Khandare and Sanjay Kumar -- Analytical methods for monitoring biodegradation processes of environmentally degradable polymers / Maarten van der Zee -- Modeling and simulation of microbial depolymerization processes of xenobiotic polymers / Masaji Watanabe, Fusako Kawai -- Regenerative medicine : reconstruction of tracheal and pharyngeal mucosal defects

in head and neck surgery / Dorothee Rickert ... [et al.] -- Biodegradable polymers as scaffolds for tissue engineering / Yoshito Ikada -- Drug delivery systems / Kevin M Shakesheff -- Oxo-biodegradable polymers : present status and future perspectives / Emo Chiellini ... [et al.].

Sommario/riassunto

A comprehensive overview of biodegradable polymers, covering everything from synthesis, characterization, and degradation mechanisms while also introducing useful applications, such as drug delivery systems and biomaterial-based regenerative therapies. An introductory section deals with such fundamentals as basic chemical reactions during degradation, the complexity of biological environments and experimental methods for monitoring degradation processes. The result is a reliable reference source for those wanting to learn more about this important class of polymer materials, as well as scie
