Record Nr. UNINA9910739471703321 Polysaccharide based graft copolymers / / Susheel Kalia, M.W. Sabaa, **Titolo** editors Pubbl/distr/stampa Berlin; ; Heidelberg, : Springer-Verlag, 2013 **ISBN** 3-642-36566-3 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (x, 353 pages): illustrations (some color) Collana Gale eBooks Altri autori (Persone) KaliaSusheel SabaaM. W Disciplina 547/.78 615.19 Soggetti Copolymers Polysaccharides Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto From the contents: Polymer Grafting: A Versatile Means to Modify the Polysaccharides -- Cellulose graft copolymers: Synthesis, Properties and Applications -- Starch-q-copolymers: Synthesis, Properties and Applications -- Chitosan-g-copolymers: Synthesis, Properties and Applications -- Gum-q-copolymers: Synthesis, Properties and Applications -- Dextran-q-copolymers: Synthesis, Properties and Applications -- Polysaccharide hydrogels: synthesis, characterization and applications -- Hyaluronic acid-g-copolymers: Synthesis, Properties and Applications -- Polysaccharide based graft copolymers for biomedical applications. Renowned experts give all essential aspects of the techniques and Sommario/riassunto applications of graft copolymers based on polysaccharides. Polysaccharides are the most abundant natural organic materials and polysaccharide based graft copolymers are of great importance and widely used in various fields. Natural polysaccharides have recently received more attention due to their advantages over synthetic polymers by being non-toxic, biodegradable and available at low cost. Modification of polysaccharides through graft copolymerization improves the properties of polysaccharides. Grafting is known to

improve the characteristic properties of the backbones. Such properties

include water repellency, thermal stability, flame resistance, dye-ability and resistance towards acid-base attack and abrasion. Polysaccharides and their graft copolymers find extensive applications in diversified fields. Applications of modified polysaccharides include drug delivery devices, controlled release of fungicides, selective water absorption from oil-water emulsions, purification of water etc.