1. Record Nr. UNINA9910583333603321 Autore Sudhakar Y. N. Titolo Biopolymer electrolytes: fundamentals and applications in energy storage / / Y. N. Sudhakar, M. Selvakumar, D. Krishna Bhat Pubbl/distr/stampa Amsterdam, Netherlands: .: Elsevier, . [2018] ©2018 **ISBN** 0-12-813611-1 0-12-813447-X Descrizione fisica 1 online resource (194 pages) Disciplina 541.372 Soggetti **Polyelectrolytes Biopolymers** Electrolytes Electrochemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia An introduction of biopolymer electrolytes -- Methods of preparation Nota di contenuto of biopolymer electrolytes -- Biopolymer electrolyte for supercapacitor -- Biopolymer electrolytes for solar cells and electrochemical cells --Biopolymer electrolytes for fuel cell applications -- Biopolymer degradation. Sommario/riassunto Biopolymer Electrolytes: Fundamentals and Applications in Energy Storage provides the core fundamentals and applications for polyelectrolytes and their properties with a focus on biopolymer electrolytes. Increasing global energy and environmental challenges demand clean and sustainable energy sources to support the modern society. One of the feasible technologies is to use green energy and green materials in devices. Biopolymer electrolytes are one such green material and, hence, have enormous application potential in devices

such as electrochemical cells and fuel cells. Features a stable of case

studies throughout the book that underscore key concepts and applications Provides the core fundamentals and applications for polyelectrolytes and their properties Weaves the subject of biopolymer electrolytes across a broad range of disciplines, including chemistry,

chemical engineering, materials science, environmental science, and pharmaceutical science.--