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Sommario/riassunto	This book provides an insight into the basic fundamentals of the biomaterials used for the biomedical applications, their development and processing techniques. Advanced materials are significantly utilized for the biomedical applications ranging from dental devices to cancer treatment owing to their higher biocompatibility and better

interaction with tissues. This book covers the various topics that include basic biocompatibility phenomena, insight to materials science, class of different advanced materials as a biomaterials, development and processing techniques, design and analysis of the developed advanced materials, investigation of its properties and major applications. Recent information regarding the development techniques and methods for improving the properties of the advanced materials in the field of biomedical applications is highlighted in detail. The textbook offers clear explanation of the text in the chapters with self-explanatory figures and tables. It demonstrates the novel methods, opportunities and ideas for developing biomaterials in the field of biomedical applications. It also includes critical review study of the developed advanced materials for biomedical applications in a new summarized form. The inclusion of the discussions on hybrid polymer-based composites and self-healing composite materials offers a special feature in the textbook. It features a thorough overview of the simulation aspect in the biomedical applications. The book features at least 50% of its references from last three–four years' work in the field of biomaterials and biomedical. The book content adds to the redundancy in the literature work related to biomedical and biomaterials. This book is a valuable resource for academicians, students and scholars from science and engineering background having interest in biomaterials. It is helpful to the biomedical engineering group especially in countries or location where they don't have accessto the major journals.