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Autore	Lam Raymond H. W
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Nota di contenuto	Introduction -- PART I BIOMATERIALS -- Basic Material Properties -- Metals and Alloys CHAPTER 4 Polymers -- Ceramics -- PART II MANUFACTURING PROCESSES -- Manufacturing Process -- Medical Imaging and Reverse Engineering -- Laser Processing -- PART III DESIGN TECHNIQUES -- Selection of Materials -- Design for Manufacturing -- Scaffold Design -- Process Optimization -- Index.
Sommario/riassunto	This textbook provides essential knowledge for biomedical product development, including material properties, fabrication processes and design techniques for different applications, as well as process design and optimization. This book is multidisciplinary and readers can learn techniques to apply acquired knowledge for various applications of biomedical design. Further, this book encourages readers to discover and convert newly reported technologies into products and services for the future development of biomedical applications. This is an ideal book for upper-level undergraduate and graduate students, engineers, technologists, and researchers working in the area of biomedical engineering and manufacturing. This book also: Provides a

comprehensive set of fundamental knowledge for engineering students and entry level engineers to design biomedical devices Offers a unique approach to manufacturing of biomedical devices by integrating and formulating different considerations in process design tasks into optimization problems Provides a broad range of application examples to guide readers through the thinking process of designing and manufacturing biomedical devices, from basic understanding about the requirements and regulations to a set of manufacturing parameters.