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Titolo	Spine technology handbook [e-book] / Steven M. Kurtz, Avram Allan Edidin
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ISBN	9780123693907 012369390X
Descrizione fisica	xiv, 535 p. : ill. (some col.) ; 25 cm
Altri autori (Persone)	Edidin, Avram Allanauthor
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Soggetti	Spine Spine - Mechanical properties Spine - Surgery Spinal implants Biomedical engineering Electronic books.
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Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	Overview of Spine; Intro to Properties of Materials and Synthetic Biomaterials Used in the Spine; Structure & Properties of Soft Tissues in the Spine; Structure & Properties of Trabecular Bone in the Spine; Muscular Actuation and Biomechanics of the Spine; Spine Disorders: Implications for Bioengineers; Fusion: Rods, Plates, Screws, and Cages; Performance of Rods, Plates, Screws and Cages; Biologics to Promote Spine Fusion; Disc Repair & Augmentation; Total Disc Replacement; Vertebral Compression Fracture Augmentation; Standard Test Methods for Spine Implants; Advanced Finite Element Analysis in Preclinical Assessment of Spine Technology; Regulatory Approval Process.
Sommario/riassunto	Over the past decade, there has been rapid growth in bioengineering applications in the field of spine implants. This book explains the technical foundation for understanding and expanding the field of spine implants, reviews the major established technologies related to spine implants, and provides reference material for developing and commercializing new spine implants. The editors, who have a track record of collaboration and editing technical books, provide a unified

approach to this topic in the most comprehensive and useful book to date. Related website provides the latest information on spine technology including articles and research papers on the latest technology and development. Major technologies reviewed include devices used for fusion (screws, plates, rods, and cages), disc repair and augmentation, total disc replacement, and vertebral body repair and augmentation. Technology landscape, review of published/public domain data currently available, and safety and efficacy of technology discussed in detail