Cochlear Implants: Fundamentals and Applications (Modern Acoustics and Signal Processing)

Graeme Clark
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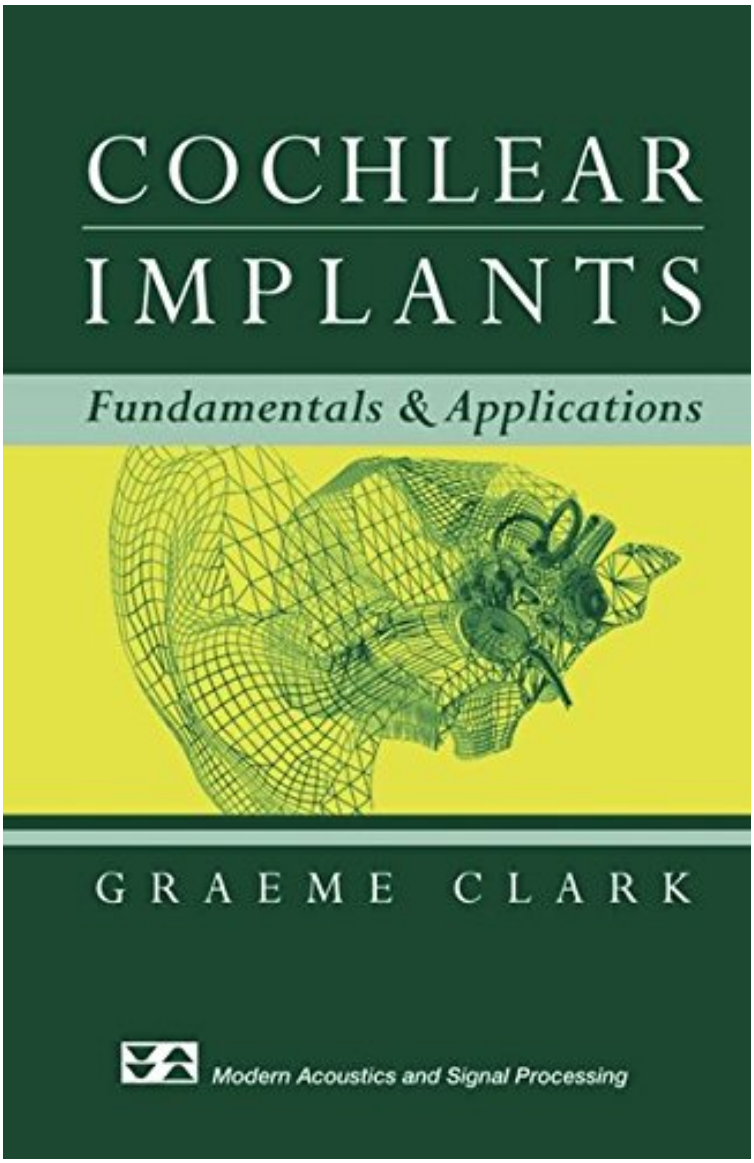

#3245103 in Books Graeme Clark 2003-10-01Ingredients: Example IngredientsOriginal language:EnglishPDF # 1 9.21 x 1.81 x 6.14l, 3.11 #File Name: 0387955836831 pagesCochlear Implants Fundamentals and Applications | File size: 44.Mb

Graeme Clark : Cochlear Implants: Fundamentals and Applications (Modern Acoustics and Signal Processing) before purchasing it in order to gage whether or not it would be worth my time, and all praised Cochlear Implants: Fundamentals and Applications (Modern Acoustics and Signal Processing):

0 of 2 people found the following review helpful. Good book; good conditionBy Pulkit GroverThis is review for the seller: worldofbooks, and not really for the book yet, since I haven't read it in sufficient detail.The book got delayed, and reached me after a month. I contacted worldofbooks, and I got a prompt response saying that since they are based in UK, and flights from UK have been canceled because of volcanic plumes and ash, they have encountered delays and difficulties.I received a discount for the next product and got the book in a few days. So I am happy now :) even though I was a touch annoyed earlier.Now if I can get my act together and actually read the book! :)

The cochlear implant is a device that bypasses a nonfunctional inner ear and stimulates the auditory nerve directly. Written by the "father" of the multi-electrode implant, this comprehensive text and reference gives an account of the principles underlying cochlear implants and their clinical application. For the clinician, the book will provide guidance in the treatment of patients; for the engineer and researcher it will provide the background for further research; and for the student, it will provide a through understanding of the subject.

From the reviews: PHYSICS TODAY (NOVEMBER 2004) by Claus-Peter Richter, Feinberg School of Medicine, Northwestern University, Chicago " Graeme Clark, author of Cochlear Implants: Fundamentals and Applications, was one of those early pioneers who was not discouraged by the establishment's criticisms or by initial failures. His lifetime of work has had enormous impact on the development and design of cochlear prostheses. Thus, Clark is well positioned to tell a wonderful success story that begins with some rudimentary hearing sensations evoked by electrical stimulation and ends with accounts of excellent speech perception by many cochlear-implant users. In his 830-page book, Clark describes in great detail the development of cochlear prostheses and covers all aspects of cochlear implantation. The first chapter provides a good historical summary. It begins with a vivid description of Alessandro Volta's 1799 current-injection experiment and follows with the competitive efforts that have led to commercial implants that are able to restore usable hearing to individuals who are severely to profoundly hearing impaired. Readers will certainly notice that the research contributions by Clark's group in Melbourne, Australia, are highlighted in the chapter titled "A History." In the remaining chapters, Clark provides a basis for understanding the challenges researchers face regarding the coding and transmission of acoustic information to the auditory nerve using electrical stimulation. These chapters address subjects including neurobiology, electrophysiology, psychophysics, speech and sound processing, engineering, surgical anatomy, and surgical pathology. The author describes in detail cochlear-implant surgery and the impact of the devices on patients' lives after implantation. The book concludes with his vision about important remaining questions and ideas for future research. Cochlear Implants: Fundamentals and Applications, a vivid recollection by one of the pioneers in cochlear implantation, gives insight into the struggles of implementing new technologies to help hearing-impaired individuals. It also colorfully documents how the development of new technologies affects a field and its success." "This book, of about 800 pages, was written by the initiator and leader of the Australian cochlear implant. presents basic knowledge in many fields involved in cochlear implants followed by exposition of applications to cochlear implants. Very conveniently, each chapter can be read independently and thus the book is rendered quite attractive to a large readership. this book appears as an attractive introduction to studies on cochlear implants by providing a particularly clear and wide overview of its many foundations." (Yves Cazals, Acta Acustica united with Acustica, Vol. 90 (4), 2004)