1. Record Nr. UNINA990000996560403321

Autore	Gabor, Dennis
Titolo	Inventing the Future / Dennis Gabor
Pubbl/distr/stampa	New York : Alfred A. Knopf, 1964
Descrizione fisica	237 p. ; 21 cm
Disciplina	082
Locazione	FI1
Collocazione	41-001
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910779203003321

Autore	Cheeke J. David N.
Titolo	Fundamentals and applications of ultrasonic waves / / J. David N. Cheeke
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , 2012
ISBN	1-351-83319-7 1-315-21730-9 1-4398-5498-X
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (497 p.)
Classificazione	SCI055000
Disciplina	534.5/5
Soggetti	Ultrasonic waves Ultrasonic waves - Industrial applications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Contents; Preface to the Second Edition; Acknowledgments; About the Author; Chapter 1 - Ultrasonics: An

Overview; Chapter 2 - Introduction to Vibrations and Waves; Chapter 3 - Bulk Waves in Fluids; Chapter 4 - Introduction to the Theory of Elasticity; Chapter 5 - Bulk Acoustic Waves in Solids; Chapter 6 - Finite Beams: Radiation, Diffraction, and Scattering; Chapter 7 - Reflection and Transmission of Ultrasonic Waves at Interfaces; Chapter 8 - Rayleigh Waves; Chapter 9 - Lamb Waves; Chapter 10 - Acoustic Waveguides; Chapter 11 - Crystal Acoustics
Chapter 12 - Cavitation and SonoluminescenceChapter 13 - Bulk Acoustic Wave Transducers, Delay Lines, and Oscillators; Chapter 14 - Surface Acoustic Wave Transducers, Analog Signal Processing, and Mobile Applications; Chapter 15 - Microacoustics: RF MEMS, FBAR, and CMUT; Chapter 16 - Acoustic Sensors; Chapter 17 - Focused Beam Acoustic Microscopy; Chapter 18 - Near-Field Acoustic Microscopy; Chapter 19 - Nondestructive Evaluation of Materials; Chapter 20 - Non/Loosely Contacting NDE Techniques; Appendix A: Bessel Functions; Appendix B: Acoustic Properties of Materials
Appendix C: Complementary Laboratory Experiments

Sommario/riassunto

Preface to the Second Edition Almost exactly ten years have passed since the submission of the manuscript for the first edition of Fundamentals and Applications of Ultrasonic Waves and it is only human to think back on that occasion. At that time I was director of an ultrasonics research group and very much in the thick of things regarding external relations and international collaborations, including active participation in the IEEE ultrasonics symposia. There were a lot of advantages: interesting colleagues to converse with, daily access to new results, both from my research group and from the current literature, continual feedback from external groups, and so on. All of this kept me fully abreast of the latest detailed developments in research areas of personal interest in ultrasonics, together with general input on what was going on in related areas. Following that period, I retired from university research to become fully involved in a spinoff company, Microbridge Technologies Inc., which had I co-founded and whose vocation was in developing microelectronic components for sensing devices. This experience gave me access to an industrial viewpoint of MEMS devices and sensor applications, as well as a different perception of the meaning of the word urgent. Today the situation is very different. Following my retirement from Microbridge I have been leading a rural lifestyle far removed from both university research and industrial microelectronics. The detailed contacts are gone, but occasional discussions with ex-colleagues, and the time to reflect on more general things have provided something else, which can be described as a clearer view of the big picture--