Diagnostic Ultrasound: Imaging and Blood Flow Measurements, Second Edition

K. Kirk Shung
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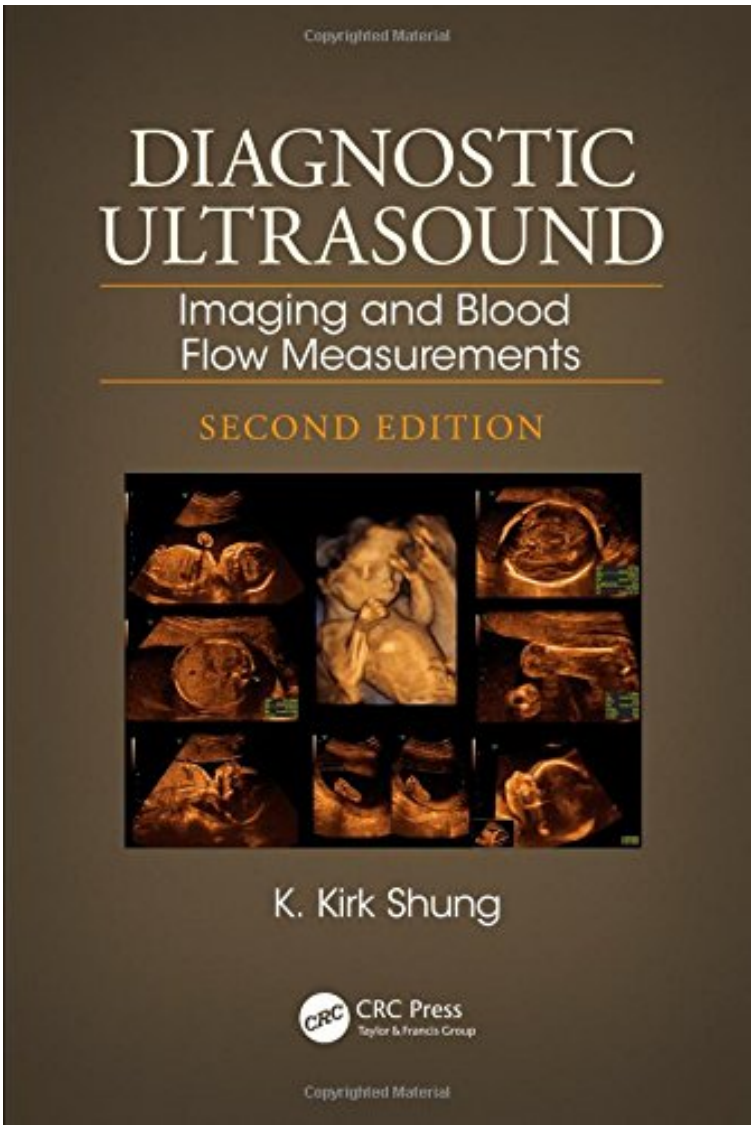

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K. Kirk Shung : Diagnostic Ultrasound: Imaging and Blood Flow Measurements, Second Edition before purchasing it in order to gage whether or not it would be worth my time, and all praised Diagnostic Ultrasound: Imaging and Blood Flow Measurements, Second Edition:

Offers an Extensive Discussion on High Frequency Ultrasound Based on a course taught and developed by a foremost expert in diagnostic ultrasound technology, Diagnostic Ultrasound: Imaging and Blood Flow Measurements, Second Edition covers cutting-edge developments, along with the fundamental physics, instrumentation, system architecture, clinical applications, and biological effects of ultrasound. This text addresses the technical side of diagnostic ultrasound and begins with an overview of the field of ultrasonic imaging and its role in diagnostic medicine relative to other imaging modalities. The author describes the fundamental physics involved in ultrasonic transducers, as well as in conventional imaging approaches and Doppler measurements, including contrast imaging and 4D imaging. He reviews the current status and standards on ultrasound bioeffect and discusses methods that have been used to measure ultrasonic properties of tissues. He also provides a list of relevant references and further reading materials at the end of each chapter. New in the Second Edition: Details the latest advances in ultrasound technology related to biomedical applications, including elastrography, portable scanners, ultrasound molecular imaging, preclinical high frequency imaging, 2D array, and 4D imaging techniques Updates and expands each chapter Adds a new chapter on new developments such as elastography and miniature scanners Includes new case studies and examples throughout the book Diagnostic Ultrasound: Imaging and Blood Flow Measurements, Second Edition covers recent advances in ultrasound technology related to biomedical applications. Intended for senior- to graduate-level coursework in ultrasonic imaging, this text also serves practicing physicists, engineers, clinicians, and sonographers.

"... provides excellent coverage in many areas of the physics and engineering of diagnostic ultrasound imaging, but also misses some key concepts that would be useful to new ultrasound physicists and engineers. Although designed as a biomedical engineering textbook on ultrasound imaging, it is useful as a handbook for quick reference to many basic concepts, bioeffects and acoustic measurement techniques for diagnostic ultrasound imaging and applications."Jeremy J. Dahl, Stanford, California, USA, from Ultrasound in Medicine and Biology, Volume 41, Number 12, 2015About the AuthorK. Kirk Shung obtained a B.S. in electrical engineering from Cheng-Kung University in Taiwan in 1968; a M.S. in electrical engineering from University of Missouri, Columbia, in 1970; and a Ph.D. in electrical engineering from University of Washington, Seattle, in 1975. In 2002 he joined the Department of Biomedical Engineering, University of Southern California, Los Angeles as a professor and became a deans professor in 2013. He has published over 500 papers and book chapters, is the author of Diagnostic Ultrasound: Imaging and Blood Flow Measurements published by CRC press in 2005, and co-editor of Ultrasonic Scattering by Biological Tissues published by CRC Press in 1993.