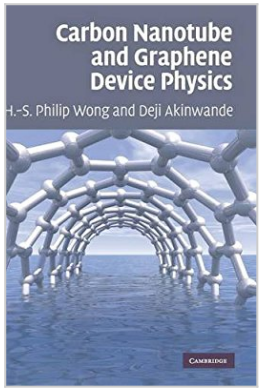

Carbon Nanotube and Graphene Device Physics

By H.-S. Philip Wong, Deji Akinwande

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Explaining the properties and performance of practical nanotube devices and related applications, this is the first introductory textbook on the subject. All the fundamental concepts are introduced, so that readers without an advanced scientific background can follow all the major ideas and results. Additional topics covered include nanotube transistors and interconnects, and the basic physics of graphene. Problem sets at the end of every chapter allow readers to test their knowledge of the material covered and gain a greater understanding of the analytical skill sets developed in the text. This is an ideal textbook for senior undergraduate and graduate students taking courses in semiconductor device physics and nanoelectronics. It is also a perfect self-study guide for professional device engineers and researchers.

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Editorial Review

Review
"I strongly recommend this text book to students, engineers and researchers... Readers, interested in graphene and carbon nanotube based devices, have the possibility to train themselves on the hottest topics and challenges which will pave the future of nanotechnology." - Simon Deleonibus, ST Microelectronics

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"I strongly recommend this text book to students, engineers and researchers who wish to build up their knowledge on carbon nanotube fundamentals and applications. They will extend their learning from materials technology and solid state physics to their applications in the fields of nanoelectronics and micro-nanosystems. The readers, interested by graphene and carbon nanotubes based devices, have the possibility to train themselves on the hottest topics and challenges which will pave the future of nanotechnology." Simon Deleonibus, IEEE Fellow, CEA-LETI Chief Scientist and Research Director, MINATEC, Grenoble, France

"This book is an excellent overview of carbon-based electronics, and in particular it provides the reader with an up-to-date and crisp description of the physical and electrical phenomena of carbon nanotubes, as well as a perspective on new applications enabled by this nanotechnology.

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H. S. Philip Wong is a Professor of Electrical Engineering at Stanford University, where he has worked since 2004. Prior to joining Stanford University, he spent 16 years at IBM T. J. Watson Research Center, Yorktown Heights, New York, where he held various positions from Research Staff Member to Senior Manager. He is a Fellow of the IEEE and his current research covers a broad range of topics including carbon nanotubes, semiconductor nanowires, self-assembly, exploratory logic devices,

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