1. Record Nr. UNINA9910139778103321

Autore	Bhattacharyya A. B. (Amalendu Bhushan)
Titolo	Compact MOSFET models for VLSI design / / A.B. Bhattacharyya
Pubbl/distr/stampa	Singapore ; , : John Wiley & Sons (Asia), , c2009 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2009]
ISBN	1-282-38210-1 9786612382109 0-470-82344-5 0-470-82343-7
Edizione	[1st edition]
Descrizione fisica	1 online resource (458 p.)
Disciplina	621.39/5 621.395
Soggetti	Integrated circuits - Very large scale integration - Design and construction Metal oxide semiconductor field-effect transistors - Design and construction
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	Semiconductor physics review for MOSFET modeling -- Ideal metal oxide semiconductor capacitor -- Non-ideal and non-classical MOS capacitors -- Long channel MOS transistor -- The scaled MOS transistor -- Quasistatic, non-quasistatic, and noise models -- Quantum phenomena in MOS transistors -- Non-classical MOSFET structures -- Appendix A : expression for electric field and potential variation in the semiconductor space charge under the gate -- Appendix B : features of select compact MOSFET models -- Appendix C : PSP two-point collocation method.
Sommario/riassunto	Practicing designers, students, and educators in the semiconductor field face an ever expanding portfolio of MOSFET models. In Compact MOSFET Models for VLSI Design, A.B. Bhattacharyya presents a unified perspective on the topic, allowing the practitioner to view and interpret device phenomena concurrently using different modeling strategies. Readers will learn to link device physics with model parameters, helping to close the gap between device understanding and its use for

optimal circuit performance. Bhattacharyya also lays bare the core physical concepts that will drive the future of VLSI development, allowing readers to stay ahead of the curve, despite the relentless evolution of new models. . Adopts a unified approach to guide students through the confusing array of MOSFET models. Links MOS physics to device models to prepare practitioners for real-world design activities. Helps fabless designers bridge the gap with off-site foundries. Features rich coverage of: . quantum mechanical related phenomena. Si-Ge strained-Silicon substrate. non-classical structures such as Double Gate MOSFETs . Presents topics that will prepare readers for long-term developments in the field. Includes solutions in every chapter. Can be tailored for use among students and professionals of many levels. Comes with MATLAB code downloads for independent practice and advanced study This book is essential for students specializing in VLSI Design and indispensible for design professionals in the microelectronics and VLSI industries. Written to serve a number of experience levels, it can be used either as a course textbook or practitioner's reference. Access the MATLAB code, solution manual, and lecture materials at the companion website: www.wiley.com/go/bhattacharyya.

2. Record Nr. UNINA9910169208603321

Autore	Anna Rudawska
Titolo	Adhesives : Applications and Properties / / edited by Anna Rudawska
Pubbl/distr/stampa	IntechOpen, 2016 Rijeka, Croatia : , : IntechOpen, , 2016
ISBN	953-51-4148-1 953-51-2784-5
Descrizione fisica	1 online resource (398 pages) : illustrations
Disciplina	668.3
Soggetti	Adhesives, Hot melt
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	This book presents some information regarding adhesives which have applications in industry, medicine and dentistry. The book is divided into two parts: ""Adhesives Applications in Medicine and Dentistry"" and ""Properties of Adhesive."" The aim of such a presentation is to present the usage in very different aspects of application of the adhesives and present specific properties of adhesives. Adhesives' advantageous properties and relatively uncomplicated processing methods contribute to their increasing application and their growing popularity in the industry, medicine and other branches. Some adhesives represent properties superior to those of most adhesive materials, due to their excellent adhesion and chemical resistance. A wide variety of adhesives' considerable flexibility in modification of properties of adhesives allows adjusting the composition to particular applications.