Record Nr. UNINA9910877804803321 Autore Luryi Serge Titolo Future trends in microelectronics [[electronic resource]]: up the nano creek / / edited by Serge Luryi, Jimmy Xu, Alex Zaslavsky Hoboken, N.J., : Wiley-Interscience, c2007 Pubbl/distr/stampa **ISBN** 1-280-90048-2 9786610900480 0-470-16826-9 0-470-16825-0 Edizione [1st edition] Descrizione fisica 1 online resource (475 p.) Altri autori (Persone) LuryiSerge XuJimmy ZaslavskyAlexander Disciplina 621.381 Soggetti Nanotechnology Microelectronics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "This book is a brainchild of the fifth workshop in the Future Trends in Microelectronics series (FTM-5) ... on Crete, Greece, in June of 2006"--Pref. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto FUTURE TRENDS IN MICROELECTRONICS; CONTENTS; Preface; 1 PHYSICS: THE FOUNDATIONS: Is Fault-Tolerant Quantum Computation

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## Sommario/riassunto

In this book leading profesionals in the semiconductor microelectronics field discuss the future evolution of their profession. The following are some of the questions discussed:Does CMOS technology have a real problem?Do transistors have to be smaller or just better and made of better materials?What is to come after semiconductors? Superconductors or molecular conductors?Is bottom-up self-assembling the answer to the limitation of top-down lithography?Is it time for Optics to become a force in computer evolution?Quantum Computing, Spintronics?Where is the pr