1. Record Nr. UNINA9911019641703321 Autore Voldman Steven H **Titolo** Latchup / / Steven H. Voldman Chichester, West Sussex, England;; Hoboken, NJ,: John Wiley, c2007 Pubbl/distr/stampa **ISBN** 9786611318161 9781281318169 1281318167 9780470516171 0470516178 9780470516164 047051616X Descrizione fisica 1 online resource (474 p.) Disciplina 621.3815/2 Soggetti Metal oxide semiconductors, Complementary - Defects Metal oxide semiconductors, Complementary - Reliability 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 Latchup; Contents; About the Author; Preface; Acknowledgements; 1 CMOS Latchup; 1.1 CMOS LATCHUP; 1.1.1 CMOS Latchup-What is Latchup?; 1.1.2 CMOS Latchup-Why is Latchup Still an Issue ?; 1.1.3 Early CMOS Latchup History; 1.2 FUNDAMENTAL CONCEPTS OF LATCHUP DESIGN PRACTICE; 1.3 BUILDING A CMOS LATCHUP STRATEGY: 1.3.1 Building a CMOS Business Strategy - 18 Steps in Building a CMOS Latchup Business Strategy; 1.3.2 Building a CMOS Latchup Technology Strategy - 18 Steps in Building a CMOS Latchup Technology Strategy; 1.4 CMOS LATCHUP TECHNOLOGY MIGRATION

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Sommario/riassunto

Interest in latchup is being renewed with the evolution of complimentary metal-oxide semiconductor (CMOS) technology, metal-oxide-semiconductor field-effect transistor (MOSFET) scaling, and high-level system-on-chip (SOC) integration. Clear methodologies that grant protection from latchup, with insight into the physics, technology and circuit issues involved, are in increasing demand. This book describes CMOS and BiCMOS semiconductor technology and their sensitivity to present day latchup phenomena, from basic over-voltage and over-current conditions, single event latchup (SEL) and cabl