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Altri autori (Persone)	SchrimpfRonald Donald FleetwoodD. M (Dan M.)
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Sommario/riassunto

This book provides a detailed treatment of radiation effects in electronic devices, including effects at the material, device, and circuit levels. The emphasis is on transient effects caused by single ionizing particles (single-event effects and soft errors) and effects produced by the cumulative energy deposited by the radiation (total ionizing dose effects). Bipolar (Si and SiGe), metal-oxide-semiconductor (MOS), and compound semiconductor technologies are discussed. In addition to considering the specific issues associated with high-performance devices and technologies, the book includes t