The effects of radiation on electronic systems.
Primary Subject
- INSTRUMENTATION RELATED TO NUCLEAR SCIENCE AND TECHNOLOGY (1)

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- CIRCUIT THEORY (1)
- ELECTROMAGNETIC RADIATION (1)
- ELECTRONIC EQUIPMENT (1)

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The effects of radiation on electronic systems
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Abstract

This book is the first unified treatment of the analysis and design methods for protection of principally electronic systems from the deleterious effects of nuclear and electro-magnetic radiation. Coverage spans from a detailed description of the nuclear radiation sources to pertinent semiconductor physics, then to hardness assurance. This work combines the disciplines of solid state physics, semiconductor physics, circuit engineering, nuclear physics, together with electronics and electromagnetic theory into a book that can be used as a text with problems at the end of the majority of the chapters. Written by veterans in the field, the most significant feature of this book is its comprehensive treatment of the phenomena involved. This treatment includes the analysis and design of the effect of nuclear radiation on electronic systems from the experimental, theoretical, and engineering viewpoints. Unique pedagogical attempts are employed to make the material more understandable from the position of an enlightened engineering and scientific readership whose task is the design and analysis of radiation hardened electronic systems.
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