**DESCRIPTION**

The practical, accessible independent-study guide and text on surface science fundamentals and microelectronics processes, this reference explains key concepts and important analytical techniques. It discusses films and interfaces, electronic passivation of semiconductor-dielectric film interfaces, the Si-SiO2 interface, and other MOSFET interfaces, and includes figures, charts, exercises, and examples of applications. This is the ideal guide to help professionals in the electronics industry get up to speed fast. It is also an excellent text for upper-level graduate and undergraduate students.

**ABOUT THE AUTHOR**

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FEATURES

• Provides full coverage of surfaces, interfaces, and film fundamentals for microelectronics, as well as the physics and chemistry of microelectronics processing

• Explores the fast-growing field of microelectronics in a readily accessible manner for the reader who requires self-study

• Authored by an expert in the field, and based on over 25 years of teaching experience in this subject

• Offers a unique blend of fundamental science, processing and applications

• Includes exercises to guide the student and a liberal addition of microelectronic applications

• Provides extensive references to the primary literature to guide readers in understanding microelectronic materials as well as design new materials and applications

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