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Sommario/riassunto

A comprehensive one-volume reference on current JLFET methods, techniques, and research Advancements in transistor technology have driven the modern smart-device revolution-many cell phones, watches, home appliances, and numerous other devices of everyday usage now surpass the performance of the room-filling supercomputers of the past. Electronic devices are continuing to become more mobile, powerful, and versatile in this era of internet-of-things (IoT) due in large part to the scaling of metal-oxide semiconductor field-effect transistors (MOSFETs). Incessant scaling of the conventional MOSFETs to cater to consumer needs without incurring performance degradation requires costly and complex fabrication process owing to the presence of metallurgical junctions. Unlike conventional MOSFETs, junctionless field-effect transistors (JLFETs) contain no metallurgical junctions, so they are simpler to process and less costly to manufacture. JLFETs utilize a gated semiconductor film to control its resistance and the

current flowing through it. Junctionless Field-Effect Transistors: Design, Modeling, and Simulation is an inclusive, one-stop reference on the study and research on JLFETs This timely book covers the fundamental physics underlying JLFET operation, emerging architectures, modeling and simulation methods, comparative analyses of JLFET performance metrics, and several other interesting facts related to JLFETs. A calibrated simulation framework, including guidance on SentaurusTCAD software, enables researchers to investigate JLFETs, develop new architectures, and improve performance. This valuable resource: - Addresses the design and architecture challenges faced by JLFET as a replacement for MOSFET -Examines various approaches for analytical and compact modeling of JLFETs in circuit design and simulation - Explains how to use Technology Computer-Aided Design software (TCAD) to produce numerical simulations of JLFETs -Suggests research directions and potential applications of JLFETs Junctionless Field-Effect Transistors: Design, Modeling, and Simulation is an essential resource for CMOS device design researchers and advanced students in the field of physics and semiconductor devices.

2. Record Nr.	UNINA9910520107203321
Autore	Yang Fenggang
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Sommario/riassunto

The speed and the scale with which traditional religions in China have been revived and new spiritual movements have emerged in recent decades make it difficult for scholars to stay up-to-date on the religious transformations within Chinese society. This unique atlas presents a bird's-eye view of the religious landscape in China today. In more than 150 full-color maps and six different case studies, it maps the officially registered venues of China's major religions - Buddhism, Christianity (Protestant and Catholic), Daoism, and Islam - at the national, provincial, and county levels. The atlas also outlines the contours of Confucianism, folk religion, and the Mao cult. Further, it describes the main organizations, beliefs, and rituals of China's main religions, as well as the social and demographic characteristics of their respective believers. Putting multiple religions side by side in their contexts, this atlas deploys the latest qualitative, quantitative and spatial data acquired from censuses, surveys, and fieldwork to offer a definitive overview of religion in contemporary China. An essential resource for all scholars and students of religion and society in China.

3. Record Nr.	UNIORUON00077011
Autore	CLARK, J. Desmond
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