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Nota di contenuto	Intro -- Processing and Characteristics of Solid-State Structures -- Preface -- Table of Contents -- Investigation of Potential Impact of Nitridation Process on Single Event Gate Rupture Tolerance in SiC MOS Capacitors -- Venus Surface Environmental Chamber Test of SiC JFET-R Multi-Chip Circuit Board -- Coupled Non-Destructive Methods, Kelvin Force Probe Microscopy and µ-Raman to Characterize Doping in 4H-SiC Power Devices -- Concept and Technology for Full Monolithic MOSFET and JBS Vertical Integration in Multi-Terminal 4H-SiC Power Converters -- Comparing 4H-SiC NPN Buffer Layers by Epitaxial Growth and Implantation for Neural Interface Isolation -- Modeling the Charging of Gate Oxide under High Electric Field -- Complementary Two Dimensional Carrier Profiles of 4H-SiC MOSFETs by Scanning Spreading Resistance Microscopy and Scanning Capacitance Microscopy -- Temperature Dependence of 4H-SiC Gate Oxide Breakdown and C-V Properties from Room Temperature to 500 °C -- Detection of Very Fast Interface Traps at 4H-SiC/AlN and 4H-SiC/Al2O3 Interfaces -- A Voltage Adjustable Diode Integrated SiC Trench MOSFET with Barrier Control Gate -- Effects of High Gate Voltage Stress on Threshold Voltage Stability in Planar and Trench SiC Power MOSFETs -- Design of Al2O3/LaAlO3/SiO2 Gate Stack on Various Channel Planes for High-

	Performance 4H-SiC Trench Power MOSFETs -- Channel Density Design Guidelines for the Transient Characteristics of SiC Trench Gate MOSFETs -- Analysis of On-State and Short-Circuit Capability in 3D Trench SiC MOSFET Designs -- Revised Channel Mobility Model for Predictive TCAD Simulations of 4H-SiC MOSFETs -- Improvement of Reflectance Spectroscopy for Oxide Layers on 4H-SiC -- Doping and Temperature Dependence of Carrier Lifetime in 4H SiC Epitaxial Layers. Fail-to-Open Short Circuit Failure Mode of SiC Power MOSFETs: 2-D Thermo-Mechanical Modeling -- Gate Resistance Integration in SiC MOSFETs: Performance Simulations under Different Implementation Methods -- Fast Estimation of the Lateral Fidelity of Ion Implantation in 4H-SiC through Calibration to JFET Transfer Characteristics in TCAD -- Keyword Index -- Author Index.
Sommario/riassunto	Special topic volume with invited peer-reviewed papers only.