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Compendium Archives

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2021

Wide Bandgap Power Semiconductors for the International Technology Roadmap for Wide Bandgap Power Semiconductors

(ITRW) – Published May 2021

- "The Impact of ITRW: How Can WBG Power Semiconductors Break Through?" (J.A. Ferreira; P. Wilson)
- "Prospects and Challenges of 4H-SiC Thyristors in Protection of HB-MMC-VSC-HVDC Converters" (C. Shen; S. Jahdi; O. Alatise; J. Oritz-Gonzlez; A. Aithal; P. Mellor)
- "Assessment of Junction Termination Extension Structures from Ultrahigh-Voltage Silicon Carbide Pi-N Diodes: A Simulation Study" (D. Johannesson; M. Nawaz; H. Nee)
- "A Novel Current-Source-Based Gate Driver With Active Voltage Balancing Control for Series-Connected GaN HEMTs" (Z. Zhang; C. Liu; M. Wang; Y. Si; Y. Liu; Q. Lei)
- "SiC and GaN Devices With Cryogenic Cooling" (R. Chen; F. Wang)
- "Analysis of the 1st and 3rd Quadrant Transients of Symmetrical and Asymmetrical Double-Trench SiC Power MOSFETs" (J. Yang; S. Jahdi; B. Stark; O. Alatise; J. Ortiz-Gonzalez; P. Mellor)
- "Thermal Characterization of SiC Modules for Variable Frequency Drives" (M. Karami; T. Li; R. Tallam; R. Cuzner)

2022

Bidirectional DC-DC Converter and Emerging Applications (BCEA) - To be published November 2022

All Power Electronics Grids – To be published December 2022

2022 IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) - To be published December 2022

