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**SiC : technologies, products and applications**

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Compound semiconductors (and mainly at the moment SiC and GaN) power devices have practically shown a quantum leap in the performances of power devices and in the possibility to enlarge the use of power electronics especially at very high voltages and high power. However, the status of SiC and GaN devices today is much less mature than that of Si power devices in terms of manufacturability, material quality and process control, cost and reliability. In this talk activities on SiC power devices at STMicroelectronics will be presented.

SiC devices (Power Schottky, MOSFETs) in the fast few years have moved from academic curiosity and outstanding proof of concepts to products with excellent performances and proven reliability. Progress in the device design, quality of substrates/epitaxial layers has been outstanding and evidences will be given on how the screening of residual defects is of paramount importance to achieve high yield and reliability. Also, performances of current products will be presented and roadmaps highlighted.