

Abstract**SiC Processing - An Exercise in Si Fabrication with a High Temperature Twist**

The tutorial will outline the advantages of SiC over other power electronic materials, and will introduce SiC devices currently developed for power applications. Device fabrication will be discussed with an emphasis on the processes that do not carry over from the mature Si manufacturing world and are thus tailored to SiC. In particular, the tutorial will stress SiC dry etching, high temperature implantation and post-implantation anneal, metallization and Ohmic contacts formation, and MOSFET SiC/SiO₂ interface gate oxide specifics. Common Edge Termination techniques, which allow SiC devices to reach their full high-voltage potential, will be presented with respect to fabrication and impact on device performance.