

Abstract Submitted  
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**SiC Diodes with Ti Schottky Contacts Deposited at Different Temperatures.**<sup>1</sup> KRISHNA KUNDETI, TOM ODER, Youngstown State University — Commercial silicon carbide semiconductor diodes are fabricated using Ti as the Schottky contact metal. In this study, we investigated the properties of the diodes fabricated with Ti deposited at different temperatures ranging from 30 °C to 900 °C. The goal of this study is to improve the performance of the diodes by optimizing the fabrication process. Thin films of Ti were deposited on SiC using magnetron sputtering and characterized using current-voltage measurements. Preliminary results suggest the diodes with Ti deposited at 200 °C yield better devices with ideality factor of 1.05 and Schottky barrier height of 1.00 eV. Additional thermal processing and physical characterization is underway and these results will be reported at the presentation.

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