



## Study of Defect States in Silicon Carbide

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Current power electronics world require semiconductor devices which are capable of highly reliable performances under extreme conditions of voltages and temperature. Wide band gap semiconductors are more suitable in comparison to the traditional semiconductors in such cases. One such semiconductor currently in focus is SiC. This book describes the structural, electronic and magnetic properties of SiC. It presents the results of computational studies of few intrinsic and extrinsic impurities in SiC and their combination too. Many conclusions are found which can throw some light on its practical usefulness. The impurities considered are, B, Al, Ga, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn and W. We have used first principle density functional theory with different exchange and correlation schemes using pseudopotentials to perform the electronic structure calculations of several defects in SiC. The theoretical background for computation has also been described in this book. | Format: Paperback | Language/Sprache: english | 200 pp.



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