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Sommario/riassunto	This book presents the fundamentals of the thermoelectrical effect in silicon carbide (SiC), including the thermoresistive, thermoelectric, thermocapacitive and thermoelectronic effects. It summarizes the growth of SiC, its properties and fabrication processes for SiC devices and introduces the thermoelectrical sensing theories in different SiC morphologies and polytypes. Further, it reviews the recent advances in the characterization of the thermoelectrical effect in SiC at high temperatures. Discussing several desirable features of thermoelectrical SiC sensors and recent developments in these sensors, the book provides useful guidance on developing high sensitivity and linearity, fast-response SiC sensing devices based on thermoelectrical effects.