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6.8 Design of Practical Polysilicon Emitters6.8.1 Break-up of the Interfacial Oxide Layer and Epitaxial Regrowth; 6.8.2 Epitaxially Regrown Emitters; 6.8.3 Trade-off between Emitter Resistance and Current Gain in Polysilicon Emitters; 6.8.4 Emitter Plug Effect and in situ Doped Polysilicon Emitters; 6.9 pnp Polysilicon Emitters; References; 7 Properties and Growth of Silicon-Germanium; 7.1 Introduction; 7.2 Materials Properties of Silicon-Germanium; 7.2.1 Pseudomorphic Silicon-Germanium; 7.2.2 Critical Thickness; 7.2.3 Band Structure of Silicon-Germanium
7.3 Physical Properties of Silicon-Germanium

Sommario/riassunto

SiGe HBTs is a hot topic within the microelectronics community because of its applications potential within integrated circuits operating at radio frequencies. Applications range from high speed optical networking to wireless communication devices. The addition of germanium to silicon technologies to form silicon germanium (SiGe) devices has created a revolution in the semiconductor industry. These transistors form the enabling devices in a wide range of products for wireless and wired communications. This book features:SiGe products include chip sets for wireless cellular handsets