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1.5.3.2 Alternate Modes 1.5.4 Vapor Analysis in CVD; 1.6 Reaction Kinetics in CVD; 1.6.1 General Comments; 1.6.2 Vapor Phase Reactions; 1.6.3 Vapor-Solid Phase Reactions; 1.6.4 Solid Phase Reactions; 1.6.5 Control of Reaction Location; 1.6.6 Rate-Determining Steps in CVD; 1.6.7 Temperature and Growth Rate Effects; 1.7 Thermodynamics in CVD; 1.8 General Comments on Precursors; 1.8.1 Design Considerations; 1.8.2 Structural Motifs; 1.8.3 Mechanistic Insights; 1.9 References; 2 . Superconducting Materials; 2.1 Introduction; 2.2 Overview of Superconductivity
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2.3.4.1 NbN CVD Precursors and Reaction Schemes

Sommario/riassunto

Written by leading experts in the field, this practical reference handbook offers an up-to-date, critical survey of the chemical vapor deposition (CVD) of nonmetals, a key technology in semiconductor electronics, finishing, and corrosion protection. The basics necessary for any CVD process are discussed in the introduction. In the following chapters, precursor requirements, with an emphasis on materials chemistry, common structures of reactants and substrates, as well as reaction control are discussed for a broad range of compositions including superconducting, conducting, semiconductin
