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17.3 Condition for quasi-stationarity Part 3: Factors affecting nucleation; Chapter 18. Seed size; Chapter 19. Line energy; Chapter 20. Strain energy; Chapter 21. Electric field; 21.1 General formulae; 21.2 Nucleation on ions; 21.3 Nucleation in external electric field; Chapter 22. Carrier-gas pressure; Chapter 23. Solution pressure; Chapter 24. Pre-existing clusters; 24.1 Non-stationary cluster size distribution; 24.2 Non-stationary rate of nucleation; 24.3 Concentration of supernuclei; 24.4 Delay time of nucleation; Chapter 25. Active centres; Part 4: Applications
Chapter 26. Overall crystallization

Sommario/riassunto

This book represents a detailed and systematic account of the basic principles, developments and applications of the theory of nucleation. The formation of new phases begins with the process of nucleation and is, therefore, a widely spread phenomenon in both nature and technology. Condensation and evaporation, crystal growth, electrodeposition, melt crystallization, growth of thin films for microelectronics, volcano eruption and formation of particulate matter in space are only a few of the processes in which nucleation plays a prominent role. The book has four parts, which a
