Books

Principles of Chemical Vapor Deposition Daniel M. Dobkin and Michael K. Zuraw, Kluwer Academic Publishers, The Netherlands, 273 pp., \$95.00, 2003



This book provides a simple introduction to heat and mass transfer, surface and gas phase chemistry, and plasma discharge characteristics. It includes discussions of practical films and reactors to help in the development of better processes and equipment. This book will assist workers new to chemical vapor deposition (CVD) to understand CVD reactors and processes and to comprehend and exploit the litera-

ture in the field. Several disparate fields are reviewed, such as heat and mass transfer, discharge physics and surface chemistry, focusing on key issues relevant to CVD. Also discussed are examples of realistic industrial reactors and processes with simplified analysis to demonstrate how to apply the principles to practical situations. The book does not attempt to exhaustively survey the literature or to intimidate the reader with irrelevant mathematical apparatus. This book is written for process engineers, graduate students and researchers newly ivolved in the development of processes and hardware for CVD.

Nano Science and Technology Novel Structures and Phenomena Zikang Tang and Ping Sheng, Taylor & Francis Publishing,





Nanoscience and technology is a rapidly developing area of research in physics, chemistry and materials. This volume is comprised of 31 papers presented at the Advanced Study Institute in Hong Kong and is a timely publication of developments in novel structures in phenomena of nanostructured materials. The book is categorized into four parts — Novel nanostructures and devices; Fullerenes and nanotubes;

Nanocomposites and semiconductor nanostructures; and Theory and simulations. A sample of topics include:

• two dimensional nanoclusters on metal surfaces

• quantum dynamics of coupled quantum-dot qubits and dephasing effects induced by measurements

• coating of metal oxides onto the surface of mesoporous silicas

• synthesis of boron nitride nanotube array

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