1. Record Nr. UNINA9910830383003321

Titolo	Liquid phase epitaxy of electronic, optical, and optoelectronic materials [[electronic resource] /] / edited by Peter Capper, Michael Mauk
Pubbl/distr/stampa	Chichester, England ; ; Hoboken, NJ, : Wiley, c2007
ISBN	1-281-03220-4 9786611032203 0-470-31950-X 0-470-31949-6
Descrizione fisica	1 online resource (465 p.)
Collana	Wiley series in materials for electronic and optoelectronic applications
Altri autori (Persone)	CapperPeter MaukMichael
Disciplina	537.622 621.3815/2 621.38152
Soggetti	Electronics - Materials Optical materials Optoelectronic devices - Materials Semiconductors Liquid phase epitaxy Crystal growth
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Liquid Phase Epitaxy of Electronic, Optical and Optoelectronic Materials; Contents; Series Preface; Preface; Acknowledgements; List of Contributors; 1 Introduction to Liquid Phase Epitaxy; 1.1 General aspects of liquid phase epitaxy; 1.2 Epitaxial growth modes, growth mechanisms and layer thicknesses; 1.3 The substrate problem; 1.4 Conclusions; Acknowledgements; References; 2 Liquid Phase Epitaxy in Russia Prior to 1990; 2.1 Introduction; 2.2 Specific features of growth of quantum-well heterostructures by LPE; 2.2.1 LPE growth from a capillary; 2.2.2 Low-temperature LPE 2.2.3 LPE growth of InGaAsP quantum well heterostructures2.3 Rare-earth elements in LPE technology of some III-V binary compounds and

Sommario/riassunto

Liquid-Phase Epitaxy (LPE) is a technique used in the bulk growth of crystals, typically in semiconductor manufacturing, whereby the crystal is grown from a rich solution of the semiconductor onto a substrate in layers, each of which is formed by supersaturation or cooling. At least 50% of growth in the optoelectronics area is currently focussed on LPE. This book covers the bulk growth of semiconductors, i.e. silicon, gallium arsenide, cadmium mercury telluride, indium phosphide, indium antimonide, gallium nitride, cadmium zinc telluride, a range of wide-bandgap II-VI compounds, diamond and