

1. Record Nr.	UNINA9910829932303321
Titolo	Bulk crystal growth of electronic, optical & optoelectronic materials [[electronic resource] /] / edited by Peter Capper
Pubbl/distr/stampa	Chichester ; ; Hoboken, NJ, : John Wiley & Sons, c2005
ISBN	1-280-24169-1 9786610241699 0-470-01208-0 0-470-01207-2
Descrizione fisica	1 online resource (579 p.)
Collana	Wiley series in materials for electronic and optoelectronic applications
Classificazione	51.12
Altri autori (Persone)	CapperPeter
Disciplina	621.38152
Soggetti	Semiconductors - Materials Optoelectronics - Materials 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	Contents; Series Preface; Preface; Acknowledgements; List of Contributors; Abbreviations; 1 Silicon; 1.1 Introduction; 1.2 Crystal-growth method and technology; 1.2.1 High-purity polycrystalline silicon; 1.2.2 CZ-Si growth apparatus and related furnace parts; 1.2.3 CZ-Si crystal growth; 1.2.4 FZ (float-zone) Si crystal growth; 1.2.5 Wafer processing; 1.3 Melt process; 1.3.1 Analysis of heat- and mass-transfer processes; 1.3.2 Oxygen transportation process and mechanism; 1.3.3 Control of oxygen concentration by application of cusp magnetic field; 1.4 Defect and wafer quality 1.4.1 Oxygen precipitation and gettering 1.4.2 Grown-in defects; 1.5 Concluding remarks; References; 2 Growth of Gallium Arsenide; 2.1 Introduction; 2.2 Doping considerations; 2.3 Growth techniques; 2.3.1 Horizontal Bridgman and horizontal gradient freeze techniques; 2.3.2 Liquid encapsulated Czochralski (LEC) technique; 2.3.3 Vertical gradient freeze (VGF) technique; 2.4 Crystalline defects in GaAs; 2.4.1 Defects in melt-grown, semi-insulating GaAs; 2.5 Impurity and defect analysis of GaAs (chemical); 2.6 Impurity and defect analysis of GaAs (electrical) 2.6.1 Introduction to the electrical analysis of defects in GaAs 2.7

Impurity and defect analysis of GaAs (optical); 2.7.1 Optical analysis of defects in GaAs; 2.8 Conclusions; Acknowledgments; References; 3 Computer Modelling of Bulk Crystal Growth; 3.1 Introduction; 3.2 Present state of bulk crystal growth modelling; 3.3 Bulk crystal growth processes; 3.4 Transport modelling in bulk crystal growth; 3.4.1 Governing equations; 3.4.2 Boundary conditions; 3.4.3 Continuum interface representation; 3.4.4 Radiation heat-transfer modelling; 3.4.5 Noninertial reference frames; 3.4.6 Magnetic fields
3.4.7 Turbulence
3.5 Computer-aided analysis; 3.5.1 Discretization; 3.5.2 Numerical interface representation; 3.5.3 Deforming grids and ALE methods; 3.5.4 A simple fixed-grid method; 3.5.5 Quasi-steady-state models; 3.6 Modelling examples; 3.6.1 Float-zone refinement of silicon sheets; 3.6.2 Bridgman growth of CZT: axisymmetric analysis; 3.6.3 Bridgman growth of CZT: three-dimensional analysis; 3.6.4 Morphological stability in solution growth of KTP; 3.7 Summary and outlook; Acknowledgments; References; 4 Indium Phosphide Crystal Growth; 4.1 Introduction; 4.2 Material properties; 4.3 Hazards
4.4 Crystal structure
4.5 Synthesis; 4.6 Single-crystal growth; 4.7 Defects; 4.7.1 Twins; 4.7.2 Dislocations; 4.8 Dislocation reduction; 4.9 VGF growth; 4.10 Crystal-growth modelling; 4.11 Dopants; 4.11.1 N-type InP; 4.11.2 P-type InP; 4.11.3 Semi-insulating InP; 4.12 Conclusion; Acknowledgements; References; 5 Bulk Growth of InSb and Related Ternary Alloys; 5.1 Introduction-a little history; 5.2 Why the interest?; 5.3 Key properties; 5.3.1 Crystallography; 5.3.2 Growth-critical material parameters; 5.3.3 Common growth conditions; 5.3.4 Impurities and dopants; 5.4 Czochralski growth
5.4.1 Challenges

Sommario/riassunto

A valuable, timely book for the crystal growth community, edited by one of the most respected members in the field. Contents cover all the important materials from silicon through the III-V and II-IV compounds to oxides, nitrides, fluorides, carbides and diamonds. International group of contributors from academia and industry provide a balanced treatment. Includes global interest with particular relevance to: USA, Canada, UK, France, Germany, Netherlands, Belgium, Italy, Spain, Switzerland, Japan, Korea, Taiwan, China, Australia and South Africa.

2. Record Nr.	UNINA9910736019403321
Autore	Schroth Stephen T
Titolo	Outdoor Education : A Pathway to Experiential, Environmental, and Sustainable Learning / / by Stephen T. Schroth
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Palgrave Macmillan, , 2023
ISBN	9783031354229 3031354222
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (249 pages)
Collana	Palgrave Studies in Alternative Education, , 2946-5044
Disciplina	371.384
Soggetti	Outdoor education Alternative education Holistic education Outdoor Education Alternative Education Experiential Education Holistic Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Continual School Reform -- Chapter 2. Curriculum Development -- Chapter 3. Children and the Outdoors: The Theoretical Underpinnings -- Chapter 4. Outdoor Education & Its Benefits for Diverse Learners -- Chapter 5. Outdoor Endeavors and Group Dynamics -- Chapter 6. Creativity & Outdoor Education -- Chapter 7. Fostering Positive Change -- Chapter 8. Resistance to Change -- Chapter 9. Conclusion.
Sommario/riassunto	"This is a superb book, and does a wonderful job of relating the current state of research related to outdoor, environmental, and place-based education. The book provides a roadmap showing others to identify problems, develop research questions, put together data, and disseminate information to third parties." —Joan Franklin Smutny, Founding Director of the Center for Gifted, a Northern Illinois University Partner, and Director of the Midwest Torrance Center for Creativity This book explores the phenomenon of outdoor education, an approach that

permits children from all backgrounds to explore environmental, sustainability, and other issues facing them and their communities. Organized around both the conceptual and the practical issues facing school leaders interested in outdoor education, the book provides a wealth of resources for those interested in implementing outdoor education in their schools or classrooms. Infinitely flexible, outdoor education provides a lens through which teachers may explore any content area with any age group of children. Providing readers with both the theoretical underpinnings that support place-based curriculum as well as practical ways to implement an outdoor education program, the book also provides seven case studies that examine the issues facing school leaders desiring to make such a change. It guides those interested in exploring outdoor education through the curricular, instructional, and policy considerations needed to accomplish this goal. Stephen T. Schroth is Professor of Early Childhood Education/Gifted & Creative Education at Towson University, USA. He is the author of eight monographs, multiple book chapters, and numerous articles, and has taught pre-service teachers and graduate students for over twenty five years.

3. Record Nr.	UNINA9910483295203321
Autore	Boiadzhieva Pepka
Titolo	Adult Education as Empowerment : Re-imagining Lifelong Learning through the Capability Approach, Recognition Theory and Common Goods Perspective / / by Pepka Boyadjieva, Petya Ilieva-Trichkova
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Palgrave Macmillan, , 2021
ISBN	9783030671365 3030671364
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (xxi, 343 pages) : illustrations
Collana	Palgrave Studies in Adult Education and Lifelong Learning, , 2524-6321
Disciplina	374
Soggetti	Continuing education Education and state Education - Philosophy Professional education Vocational education Lifelong Learning Educational Policy and Politics Philosophy of Education Educational Philosophy Professional and Vocational Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introduction: The Feasibility Of Re-Imagining Adult Education As Empowerment -- 2. The Lifelong Learning Hybrid -- 3. The Heuristic Potential Of The Capability Approach In Studying (Adult) Education -- 4. Adult Education As An Agency And Empowerment Process -- 5. The Social Embeddedness Of The Capability To Participate In Adult Education -- 6. Lifelong Striving For Recognition: A Recognition Perspective Towards Adult Education -- 7. Towards A Holistic Understanding Of The Missions And Roles Of Adult Education -- 8. Equity For Whom, To What And Where: The Multi-Dimensional Character Of Social Justice In Adult Education -- 9. Fragile Sociality: Inequalities In Access To Adult Education And Social Trust -- 10.

Sommario/riassunto

Winner of the AAACE Cyril O. Houle Award This book re-imagines the essence and role of adult education at both the individual and societal levels. It provides arguments for understanding adult education as a process of agency and empowerment, which has not only instrumental but intrinsic and transformative roles to play. This book brings together ideas from the capability approach with insights from recognition theory; the embeddedness approach; the political economic perspective for understanding public and private goods and the common goods perspective. The analysis draws on data from large-scale international studies – alongside qualitative data - and adopts a wide-ranging European comparative perspective. The book develops original instruments for measuring different dimensions of adult education as a common good, and its realisation in different social contexts. It is aimed at academics, students, practitioners, and policy makers interested in adult and/or higher education and the social justice perspective to human life.
