

1. Record Nr.	UNINA9910789981603321
Titolo	Quasicrystals [[electronic resource]] : types, systems, and techniques / / Beth E. Puckermann, editor
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2011
ISBN	1-61761-230-8
Descrizione fisica	1 online resource (238 p.)
Collana	Physics research and technology Materials science and technologies
Altri autori (Persone)	PuckermannBeth E
Disciplina	530.4/1
Soggetti	Quasicrystals Crystals
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	<p>""QUASICRYSTALS: TYPES, SYSTEMS, AND TECHNIQUES""; ""QUASICRYSTALS: TYPES, SYSTEMS, AND TECHNIQUES""; ""Contents""; ""Preface""; ""Dominance of Magnetic Scattering in Al70Pd20+Xmn10-X (X = 0, 1 and 2), Al70Pd20Mn8(TM)2 (TM=Fe, Cr, Co and Ni) and Al70- Xbx Pd20Mn10 (X = 0, 0.5,1, 2 and 4) Stable Icosahedral Quasicrystals""; ""Abstract""; ""1. Introduction""; ""1.1. Phase Diagram""; ""1.2. Magnetic Properties""; ""1.3. Electrical Conductivity""; ""2. Synthesis and Characterization Details""; ""3. Part I""; ""3.1. Results and Discussions""; ""3.1.1. Structural Characterization"" ""3.1.2. Magnetic Characterization""""3.1.3. Conductivity Vs. Temperature ((-T)""; ""3.1.3.1. (-T Minimum""; ""3.1.3.2. (-T Maximum""; ""3.1.3.3. Possible Origin of Observed (-T Behavior""; ""3.1.4. Magneto-Resistance""; ""4. Part II""; ""4.1. Results and Discussion""; ""4.1.1. Structural Characterization""; ""4.1.2. Magnetic Characterization""; ""4.1.3. Conductivity Vs. Temperature""; ""4.1.3.1. ((-T) Minimum""; ""4.1.3.2. (-T Maximum""; ""4.1.3.3. Possible Origin of (-T Behavior""; ""4.1.4. Magneto-Resistance""; ""5. Part III""; ""5.1. Results and Discussion"" ""5.1.1. Structural Characterization""""5.1.2. Magnetic Characterization""; ""5.1.3. Conductivity Vs. Temperature""; ""5.1.4. Magneto-Resistance Measurement""; ""Conclusions""; ""Annexure I""; ""References""; ""Logarithmic Periodicity a€? Properties, Tests and</p>

Uncertainties"; "Abstract"; "1. Introduction"; "2. Model"; "3. Properties"; "3.1. Observations"; "3.1.1"; "3.1.2."; "3.1.3."; "3.1.4."; "3.1.5."; "3.1.6."; "3.2. Consequences"; "3.2.1. Indexation"; "3.2.2. The Compromise Spacing Effect"; "3.2.3 Dimensions"; "3.2.4. Enthalpy, the Driving Force"; "3.2.5. Angular Filtering"; "3.2.6. Double Diffraction"; "3.2.7. Electronic States"; "4. Evidence"; "4.1. Simplicity, Symmetry, and Sharpness"; "4.2. Ranking of Beam Intensities and Calculated $a\epsilon$? Structure Factors"; "4.2.1. Logarithmic Periodicity"; "4.2.2. Double Diffraction in CBED"; "4.2.3. Bragg Anomaly in the 2-Fold Pattern"; "4.2.4. 2-Fold Pattern Orientation Anomaly"; "4.3. Diffraction Due to Clusters"; "4.4. HREM Images of Clusters and Superclusters"; "4.4.1. $a\epsilon$? Structure Factor For The HREM Model Structure"; "4.4.2. The 3-Fold Cluster Center in the 5-Fold Pattern"; "5. Uncertainties"; "5.1. Extension"; "5.2. Defects"; "5.2.1. The Aperiodic Cluster $a\epsilon$? Hole"; "5.2.2. The $a\epsilon$? Hole in Supercluster Order 1"; "5.2.3. The $a\epsilon$? Hole in Superclusters of Higher Order"; "5.2.4. Glassy Structures"; "5.3. Limitation to Binary Systems"; "5.4. Quasicrystal Growth Mechanisms"; "Conclusion"; "Appendix 1. Quasi Bragg Diffraction"; "Appendix 2. Lemmas, Proofs and Corollaries"; "Reference"; "Vacancies in Quasicrystals"; "Abstract"; "1. Introduction"; "2. Positron Annihilation Spectroscopy"
