1. Record Nr. UNINA9910830051203321

Autore	Jha Animesh
Titolo	Inorganic glasses for photonics : fundamentals, engineering, and applications / / Animesh Jha
Pubbl/distr/stampa	Chichester, England : , : Wiley, , 2016 ©2016
ISBN	1-118-69609-3
Descrizione fisica	1 online resource (343 p.)
Collana	Wiley Series in Materials for Electronic and Optoelectronic Applications
Disciplina	621.3650284
Soggetti	Glass - Optical properties Photonics - Materials
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 at the end of each chapters and index.
Nota di contenuto	Inorganic Glasses for Photonics: Fundamentals, Engineering and Applications; Contents; Series Preface; Preface; 1: Introduction; 1.1 Definition of Glassy States; 1.2 The Glassy State and Glass Transition Temperature (Tg); 1.3 Kauzmann Paradox and Negative Change in Entropy; 1.4 Glass-Forming Characteristics and Thermodynamic Properties; 1.5 Glass Formation and Co-ordination Number of Cations; 1.6 Ionicity of Bonds of Oxide Constituents in Glass-Forming Systems; 1.7 Definitions of Glass Network Formers, Intermediates and Modifiers and Glass-Forming Systems 1.7.1 Constituents of Inorganic Glass-Forming Systems1.7.2 Strongly Covalent Inorganic Glass-Forming Networks; 1.7.3 Conditional Glass Formers Based on Heavy-Metal Oxide Glasses; 1.7.4 Fluoride and Halide Network Forming and Conditional Glass-Forming Systems; 1.7.5 Silicon Oxynitride Conditional Glass-Forming Systems; 1.7.6 Chalcogenide Glass-Forming Systems; 1.7.7 Chalcohalide Glasses; 1.8 Conclusions; Selected Bibliography; References; 2: Glass Structure, Properties and Characterization; 2.1 Introduction; 2.1.1 Kinetic Theory of Glass Formation and Prediction of Critical Cooling Rates 2.1.2 Classical Nucleation Theory2.1.3 Non-Steady State Nucleation; 2.1.4 Heterogeneous Nucleation; 2.1.5 Nucleation Studies in Fluoride Glasses; 2.1.6 Growth Rate; 2.1.7 Combined Growth and Nucleation