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Nota di contenuto	Photo-Induced Metastability in Amorphous Semiconductors; Preface; Introduction; Contents; List of Contributors; 1 Structure, Defects and Electronic Properties of Amorphous Semiconductors; 1.1 Structural States of Solids; 1.1.1 Ordered State; 1.1.2 Disordered (Non-Crystalline) State; 1.2 Atomic Scale Ordering in Crystalline and Non-Crystalline Solids; 1.2.1 Long-Range Order; 1.2.2 Short-Range Order; 1.2.3 Medium-Range Order; 1.3 Fundamental Problems of Structure of Non-Crystalline Semiconductors; 1.3.1 Tetrahedrally Bonded Amorphous Semiconductors 1.3.2 Amorphous Non-Tetrahedrally Bonded Semiconductors 1.4 Defects in Non-Crystalline Solids; 1.4.1 Local Defects; 1.4.2 The Diffuse or Collective Defects (Extended Defects); 1.4.3 Chemical Defects; 1.4.4 Electronic-Structural Defects; 1.4.5 Macrodefects; 1.5 Electronic States in Amorphous Semiconductors; 1.5.1 Electronic States in Tetrahedrally Bonded Semiconductors; 1.5.2 Electronic States in

Non-Tetrahedrally Bonded Semiconductors; References; 2 Photo-Induced Phenomena in Amorphous and Glassy Chalcogenides; 2.1 Introduction; 2.2 Photo-Induced Effects in Amorphous and Glassy Chalcogenides  
2.2.1 Irreversible Photo-Induced Changes 2.2.2 Reversible Photo-Induced Changes; 2.3 Applications; 2.4 Summary; References; 3 Short-, Medium- and Long-Range-Order Structural Transformations in Amorphous Semiconductors; 3.1 Introduction; 3.2 Short-Range-Order (SRO) Effects; 3.3 Medium-Range-Order (MRO) Effects; 3.4 Long-Range-Order (LRO) Effects; 3.5 Conclusion; References; 4 Dynamics of Photo-Induced Metastability in Amorphous Chalcogenides; 4.1 Introduction; 4.2 Light-Induced Metastable Defect (LIMD) Creation; 4.3 Photostructural Changes; 4.4 Discussion; 4.5 Conclusions; References  
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7 The Optomechanical Effect in Amorphous Chalcogenide Films

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#### Sommario/riassunto

A review summarising the current state of research in the field, bridging the gaps in the existing literature. All the chapters are written by world leaders in research and development and guide readers through the details of photo-induced metastability and the results of the latest experiments and simulations not found in standard monographs on this topic. A useful reference not only for graduates but also for scientific and industrial researchers. With a foreword of Kazunobu Tanaka.

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