



edited by  
**Rongping Wang**

# **AMORPHOUS CHALCOGENIDES**

## **Advances and Applications**







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## Preface

The research on the fundamental physics and practical applications of chalcogenide glasses has rapidly grown recently. This is mostly stimulated by commercially successful products based on glasses, such as xerographic photoreceptors in copying machines and digital versatile disks.

This book reviews the recent progress in the physics and applications of chalcogenide glasses. It begins with a discussion on the problem of glass formation in chalcogenide systems and then moves onto relaxation and fragility, as well as photoinduced deformation in glasses, experimental investigations, and computer simulation of the glass structure, followed by various applications such as optical amplifiers, sensors, and waveguide devices. The contributors to the book are experts in their fields. Therefore, although the book does not cover all the aspects of chalcogenide glasses, it certainly helps readers understand the fundamental concepts and the essence of the subject.

This book can be used by researchers and postgraduate students as a starting point to get familiar with the history/background and current status of the research topics discussed in the book.

I am grateful to all the chapter contributors. This book would not have been possible without their commitment and cooperation. I am grateful to the managing editor and the entire team at Pan Stanford Publishing for their assistance. Last, but not least, I thank my wife, Chunjiao, and my kids, Evanthy and Kevin, for their understanding and support while I spent a lot of family time on the book.

**Rongping Wang**

