



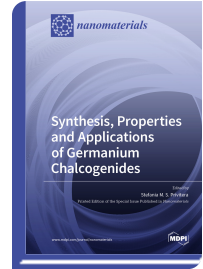
Special Issue Reprint

Synthesis, Properties and Applications of Germanium Chalcogenides

www.mdpi.com/books/reprint/6143

Edited by
Stefania M. S. Privitera

ISBN 978-3-0365-5261-3 (Hardback)
ISBN 978-3-0365-5262-0 (PDF)



Germanium (Ge) chalcogenides are characterized by unique properties that make these materials interesting for a very wide range of applications from phase change memories to ovonic threshold switches and from photonics to thermoelectric and photovoltaic devices. In many cases, their physical properties can be finely tuned by doping or by changing the amount of Ge, which may therefore play a key role in determining the applications, performance, and even the reliability of these devices. In this book, we include 11 articles, mainly focusing on applications of Ge chalcogenides for non-volatile memories. Most of the papers have been produced with funding received from the European Union's Horizon 2020 Research and Innovation program under grant agreement n. 824957.

In the Special Issue “BeforeHand: Boosting Performance of Phase Change Devices by Hetero- and Nanostructure Material Design”, two contributions are related to the prototypical $\text{Ge}_2\text{Sb}_2\text{Te}_5$ compound, which is the most studied composition, already integrated in many devices such as optical and electronic memories. Five articles focus on Ge-rich GeSbTe alloys, exploring the electrical and the structural properties, as well as the decomposition paths. Other contributions are focused on the effect of the interfaces and on nanowires.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6143

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.