1. Record Nr. UNINA9910373886003321 Autore Lan Rui Titolo Thermophysical Properties and Measuring Technique of Ge-Sb-Te Alloys for Phase Change Memory / / by Rui Lan Singapore:,: Springer Singapore:,: Imprint: Springer,, 2020 Pubbl/distr/stampa 981-15-2217-0 **ISBN** Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XI, 139 p. 120 illus., 64 illus. in color.) Disciplina 660.2977 Soggetti Materials science Optical materials **Electronics - Materials** Semiconductors Engineering—Materials Electronic circuits Phase transformations (Statistical physics) Characterization and Evaluation of Materials Optical and Electronic Materials Materials Engineering **Electronic Circuits and Devices** Phase Transitions and Multiphase Systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Establishment of the hot strip method for thermal conductivity meausurements of Ge-Sb-Te alloys -- Thermal conductivities of Ge-Sb-Te alloys -- Electrical resistivities of Ge-Sb-Te alloys -- Thermal conduction mechanisms and prediction equations of thermal conductivity for Ge-Sb-Te alloys -- Densities of Ge-Sb-Te alloys -- Summary and conclusions. . Sommario/riassunto This book focuses on the thermophysical properties of Ge-Sb-Te alloys, which are the most widely used phase change materials, and the technique for measuring them. Describing the measuring procedure

and parameter calibration in detail, it provides readers with an accurate method for determining the thermophysical properties of phase change

materials and other related materials. Further, it discusses combining thermal and electrical conductivity data to analyze the conduction mechanism, allowing readers to gain an understanding of phase change materials and PCM industry simulation.