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References; The Relationship Between Crystal Structure and Performance as Optical Recording Media in Te-Ge-Sb Thin Films, D. Strand, J. Gonzalez-Hernandez, B.S. Chao, S.R. Ovshinsky, P. Gasiorowski and D.A. Pawlik, Mat. Res. Soc. Symp. Proc., 230 (1992) pp 251-256; ABSTRACT; INTRODUCTION; EXPERIMENTAL; RESULTS; DISCUSSION AND CONCLUSION; REFERENCE

Ovonic Phase Change Memory Making Possible New Optical and Electrical Devices, S.R. Ovshinsky, 9th Symposium on Phase Change Recording, Japan, (1997) pp 44-49. Acknowledgements; References; Phase-Change Optical Storage Media, Takeo Ohta and S.R. Ovshinsky, Photo-Induced Metastability in Amorphous Semiconductors, Ed. AV. Kolobov, Wiley-VCH (2003) pp 310-326; 18.1 Introduction; 18.2 Phase-Change Overwrite Optical Disk; 18.2.1 Phase-Change Optical Memory Phenomena; 18.2.2 The Phase-Change Memory Mechanism; 18.2.3 Phase-Change Overwriting Method; 18.3 Phase-Change Materials

18.3.1 Bonding Features of Chalcogenide Phase-Change Materials

18.3.2 Phase-Change Optical Disk Materials for Optical Disk Memory; 18.4 Breakthrough Technologies of the Phase-Change Optical Disk Media; 18.4.1 Basic Layer Structure; 18.4.2 Million Overwrite Cycle Phase Change Optical Disk [6]; 18.5 Thin Substrate Technology of Phase Change Optical Disk Promotes DVD; 18.6 High-Density Recording Technologies for Phase Change Optical Disks; 18.6.1 Short-Wavelength Blue Laser and High Numerical Aperture Lens Recording; 18.6.2 Dual-Layer Recording; 18.6.3 Multi-Level Recording

18.6.4 Near-Field Recording and Super-RENS Recording

Sommario/riassunto

This book highlights the achievements of the self-taught inventor, scientist, manufacturer and entrepreneur, Stanford R Ovshinsky. This remarkable individual could, without special training, compete with the well-funded establishments of learning and industry in the second half of the last century and leave us an incredible legacy of brilliant innovations with a lasting impact on our lives. His achievements extend over amazingly diverse fields and have or are prone to create new industries of great societal value. The phase change memories of commonly used rewritable CDs and DVDs as well as of
