



Review on Chalcogenide glass

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Abstract

This paper describes the overall review of Chalcogenide glass. The synthesis of Chalcogenide glass by different method is described in details. This paper also discuss the different apparatus which is used to characterized the Chalcogenide glasses for example XRD, UV-visible spectrophotometer, EDAX analysis, Photoluminescence spectroscopy, dielectric properties Field Emission Scanning Electron Microscope (FE-SEM), Differential scanning calorimetry.

Keywords: Chalcogenide glass, Synthesis, Characterization, XRD, EDAX, FE-SEM.

References

1. Acharya, K. V., Asokan, S. & Panchapaesan, T. S. (1999) "thermal crystallization behaviour of Ge-Se glasses, Indian J.of Pure & Applies Physics, Vol.37, 1999, pp-823-827.
2. Atyia, H. E. (2008). "Electrical and optical properties of thermally evaporated Ge₂₀In₅Se₇₅films," Physica B., 403, pp. 16–24.
3. Barsoum, M. (1977). Mc Graw-Hill, New York, 543.
4. Bruno, B., Boussard-pledel, C. & Lucas P. (2009). Molecules, 14, 4337-4350.
5. Frey, H. & Khan, H. R. (2011) "Hand Book of thin film technology," Springer.
6. Goswami, A. (1996). "Thin Film Fundamentals," New Age International (P) Limited, New Delhi.
7. IUPAC. (1997). Compendium of Chemical Terminology, 2nd ed. (the "Gold Book").
8. Kolomieto, B. T. (1964). Phys. Status Solidi, 7, 713.
9. Kokorina, V. (1996). "Glasses for Infrared Optics", CRC Press, Boca Raton, Fla.
10. Kumar, S., Singh, K. & Mehta, N. (2010). Philosophical Magazine Letters, Vol.90, N0.8, 547-557. Glass Transition, From Wikipedia, the free encyclopedia.
11. Mahadevan, S. & Giridhar, A. (2000). Metals Materials and Processes, vol. 12, no. 2&3, pp.97-126. Clement Conseil, Jean-Claude Bastien, Catherine Boussard-pledel, 1 November 2012/vol.2.N0.11/Optical Materials Express 1470.
12. Modgil, V. & Rngra, V. S. (2014). Journal of Non-Oxide Glasses, Vol.6.No.4, p.69-78.
13. Nelson, Stuart. O. (2010). Journal of Microwave Power and Electromagnetic Energy, 44 (2) 98-113.
14. Saad, M., Poulain, M. (1987). Glass forming ability criterion. Mater Sci. Forum.; 19:11-18.
15. Sheng, G., Liu, Z. P. Lu C. T. (2010). "Identify the best glass forming ability criterion" Intermetallics (18), pp. 883-888.
16. Svoboda, J. B. R. & Malek, J. (2012). Journal of Applied Physics, 111, 094908.
17. Yamane, M. & Yoshiyuki (2000). "Glasses for Photonics", Cambridge University Press, Spain.