

Thermal properties of ternary tellurite glass system.

ABSTRACT

Ternary tellurite glass system of $[(\text{TeO}_2)_60 (\text{B}_2\text{O}_3)_40]_1 y[\text{Ag}_2\text{O}]_y$ glasses had been synthesized by melt quenching method. The thermal expansion coefficient of the glasses was determined between 30°C and 210°C. Experimental results indicate that the thermal expansion varies with micro structural of the glass system. Transition temperature and Debye temperature decrease with Ag_2O due to loose packing of the glass network.

Keyword: Thermal properties; Tellurite; Glass; Debye temperature; Ag_2O .