Characteristic temperatures and microhardness of (ZnO)x-(AlF3)y-(TeO2)z tellurite glass systems

ABSTRACT

Glass transition temperature T_g and softening temperature T_s were measured by the differential thermogravimetric analysis DTA in the temperature range 300-850 K of ternary zinc oxyfluoro tellurite (ZOFT) with the composition (ZnO)x-(AlF_3)y-(TeO_2)z where (5 D, softening temperatures $T_{s(calc)}$ and microhardness $H_v$of ternary zinc oxyfluoro tellurite (ZOFT) have been calculated by using ultrasonic velocities data. The compositional dependence of these physical quantities were discussed to understand the rigidity and compactness of the glass system studied.

Keyword: Thermal properties; Glasses; Tellurite