

THERMAL ANALYSIS OF TeO₂-Nb₂O₅-Li₂O-Sm₂O₃ GLASS SYSTEM

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ABSTRACT

Series of samarium doped tellurite glass on the (70-x) TeO₂-20Nb₂O₅-10Li₂O-(x) Sm₂O₃ system where x is 0 to 5mol% has successfully been made by melt quenching technique. The density and the thermal parameters such as T_g, T_c, T_m and glass stability have been determined by Differential Thermal Analysis (DTA). It is found that the variation of the glass densities with Sm₂O₃ content shows an increasing trend. It is also observed that the T_g and T_c were both compositional dependence. Meanwhile, the glass stability, (T_c-T_g) is very much depending on the amount of Sm₂O₃ content.

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