

## Abstract :

An aluminosilicate nuclear glass storage was synthesized by a double melting method and characterized using both X-ray diffraction and scanning electron microscopy (SEM) techniques. Physical parameters like density and molar volume were measured. Fourier Transform Infrared Spectroscopy (FTIR) confirms the glass chemical composition. Differential thermal analysis (DTA) was used to determine the glass-transition temperature ( $T_g$ ). Samples microstructure was also characterized by Vickers microhardness, young's modulus and electrical resistivity