

## **Alteration on the chemical durability of tellurite glass: effect of heat treatment**

### **ABSTRACT**

Modifying the glass features under controlled parameters is vital to achieving optimum final product for diverse applications. In this study, tellurite glass was prepared using melt quenching technique and heat treated at varying temperatures. The thermal stability, chemical durability, and surface morphology were investigated by implementing DTA and SEM-EDX. TZNE glass possesses  $\Delta T$  of 115 °C. The weight loss of glass in distilled water and ammonium hydroxide solution became apparent for glass heat treated at higher temperature due to decrease in its structural stability. SEM micrographs manifested the emergence of acicular shape and globular shape particles deposited on the glass surface.