

Abstract Submitted
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Glass Transition Kinetics Of $\text{Se}_{80-x}\text{Te}_{20}\text{Ag}_x$ Glassy Alloys DIPTI SHARMA, WIT, Boston,MA, R. K. SHUKLA, A. KUMAR, HBTI Kanpur, India — The present study shows the glass transition kinetics of $\text{Se}_{80-x}\text{Te}_{20}\text{Ag}_x$ ($X = 0, 5$ and 10) glassy alloys prepared by quenching technique under a high vacuum of 10^{-5} Torr. Using calorimetric technique, it is found that the glass transition (T_g) moves towards lower temperature when Ag is incorporated in the host SeTe glassy alloy from 0% to 10%. The T_g appears at $336.8\text{ }^\circ\text{C}$, $336.0\text{ }^\circ\text{C}$ and $333.0\text{ }^\circ\text{C}$ respectively. T_g also shows a shift in its appearance for different heating rates and follows a kinetic behavior. The glass transition behavior is interpreted in terms of thermal relaxation phenomena where the enthalpy of the transition relaxes towards new equilibrium state isothermally when alloys is heated and shows a decrease in its kinetic energy. The activation energy of T_g is also found decreasing when the presence of Ag is increased in the host glassy alloy. **Keywords:** Glassy alloy, Silver, Calorimetry, Quenching, Heat flow, Kinetics, Glass transition.

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