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Department of Physics
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Item	**Details**
Faculty Name:	Dr. Vanitha M K
Room No:	A-125, 1st Floor, School of Engineering
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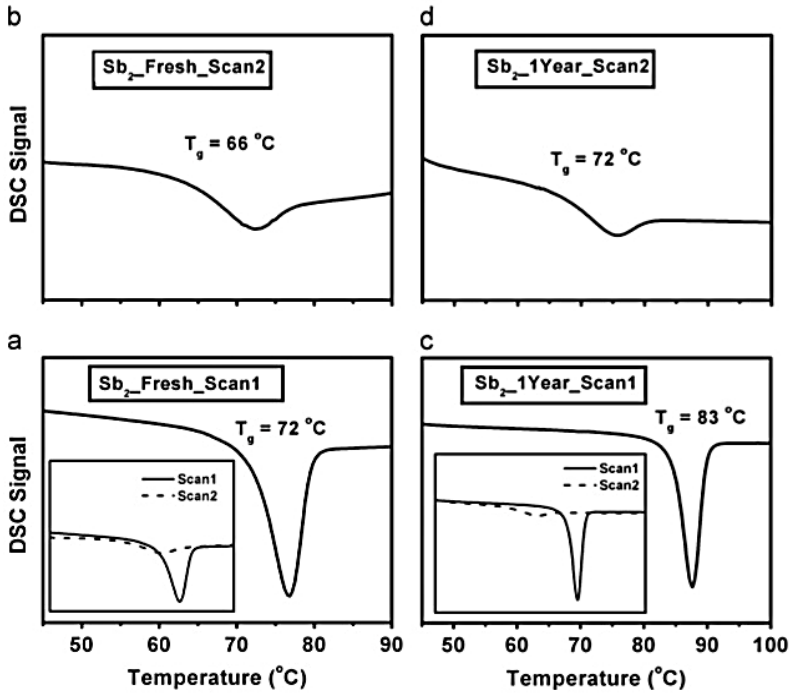
Research Activities	Theoretical and Experimental Gravitational Wave Physics, participated in various Research Schools and Workshops (2017-2023) Amorphous Solids; Characterization of Bulk and Thin films. (2009-2019) IISc Bangalore. **Excerpts from one of the research publications**: Physical ageing in Se–Te–Sb glasses Glasses are frozen states, and their free energy is higher than the systems which are in equilibrium state. The properties of an equilibrium state depend on the external variables whereas the properties of the frozen state depend also on thermal history. The systems with higher free energy and thermal history tend to equilibrate at a finite rate by relaxation process/ageing. Generally, in a DSC spectrum Tg is seen as a baseline shift [25,26]. Ageing, which is seen as an endothermic peak, shifts the glass transition to higher temperatures. In this study, the Se60-xTe40Sbx glasses exhibit a sharp endothermic peak at Tg for xr6. For x46, the endothermic peak disappears and Tg is exhibited as a baseline shift. The sharp endothermic peak at Tg is due to the ageing effect of the glasses as discussed above. It should also be mentioned that the DSC spectra shown in Fig. 2 were recorded for the samples which are 1 month old (30 days after the preparation of the samples). The observation of the sharp endothermic peak made us prepare all the compositions again in the Se60-xTe40Sbx glasses to understand the ageing effect. The freshly prepared samples were transferred to the DSC pans immediately after opening the ampoules. Even these freshly pre-pared samples also exhibit the ageing effect as shown in Figs.

	
Collaborations	• Dr. K Ramesh, IISc Bengaluru. Scientist, Department of Physics Indian Institute of Science, Bangalore Dr.S Asokan. Chairman, Dept of ISU, Indian Institute of Science, Bangalore R. Ganesan, Principal Research Scientist Department of Physics, Indian Institute of Science, Bangalore LISA Consortium