GLASS TRANSITION IN SODIUM THIOSULFATE PENTAHYDRATE

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Recent kinetic approaches to the glass formation may be applied to the examination of the large stable undercoolings characterizing certain materials. Thus the stable undercooling of sodium thiosulfate pentahydrate, as large as seventy Kelvins, is atributed first to the extremely steep dependence of its nucleation frequency upon temperature, and second to the very small value of the fraction of sites in the crystal-melt interface where molecules may preferentially be added and removed. It was found that characteristic parameter alpha of sodium thiosulfate pentahydrate is equal to 0.17 - 0.19, that crytical cooling rate is about 100 K/s and that glass transition accurs around 215 K. Full text on the subject will be submited for the publication in a regular edition of Fizika.