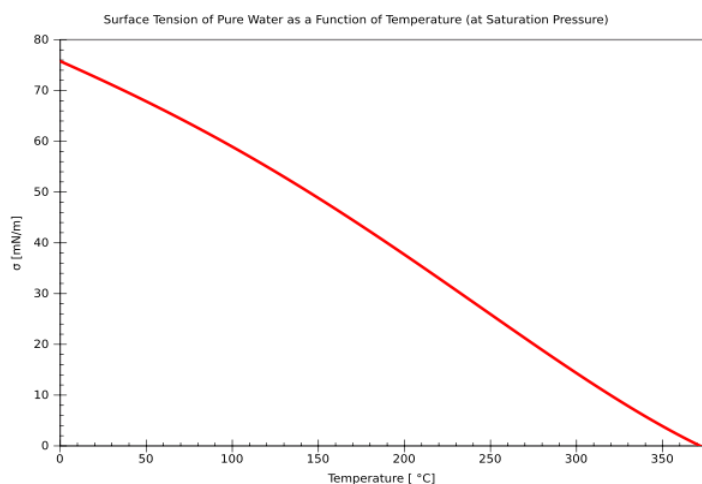
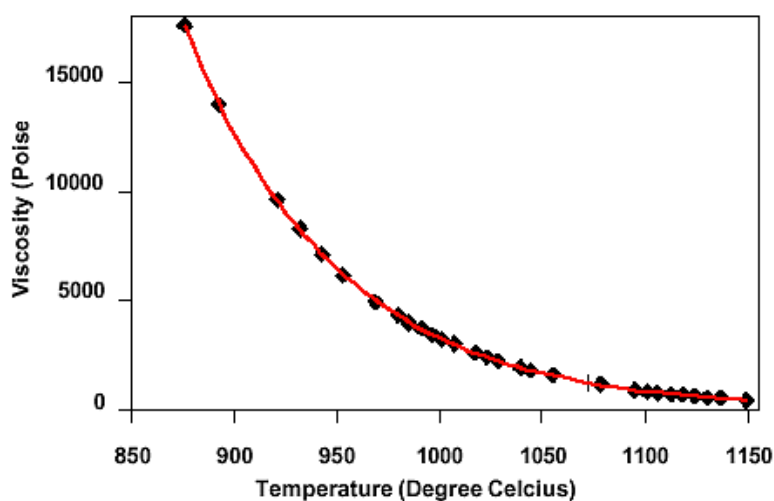


Answer on Question#36721 - Chemistry - Physical Chemistry



Surface tension is dependent on temperature. For that reason, when a value is given for the surface tension of an interface, temperature must be explicitly stated. The general trend is that surface tension decreases with the increase of temperature, reaching a value of 0 at the critical temperature.



The temperature dependence of liquid viscosity is the phenomenon by which liquid viscosity tends to decrease (or, alternatively, its fluidity tends to increase) as its temperature increases. A molecular view of liquids can be used for a qualitative picture of the process of decrease in the shear (or bulk) viscosity of a simple fluid with temperature. As the

temperature increases, the time of interaction between neighboring molecules of a liquid decreases because of the increased velocities of individual molecules. The macroscopic effect is that the intermolecular force appears to decrease and so does the bulk (or shear) viscosity. The actual process can be quite complex and is typically represented by simplified mathematical or empirical models, some of which are discussed below. The models are valid over limited temperature ranges and for selected materials.