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(57) Abstract :

The present invention relates to method to evaluate the effect of different concentration of polyvinyl alcohol and different temperature on acoustical parameters of polyvinyl alcohol. Solution prepared by adding known weight of polyvinyl alcohol of molecular weight 140,000 to fixed volume of water and stirring under reflex, until a clear solution obtained. The viscosity of polyvinyl alcohol is high at higher concentration of polyvinyl alcohol and low at higher temperature. The invention discloses increase in intermolecular free length with increasing temperature and decrease in intermolecular free length with increasing concentration of polyvinyl alcohol. The invention shows lower relaxation time at higher temperature and higher relaxation time at higher concentration of polyvinyl alcohol. The study also shows the lower ultrasonic velocity at higher temperature and higher ultrasonic velocity at higher concentration of polyvinyl alcohol. The invention describes the association between polyvinyl alcohol and water because of interaction between solute and solvent.

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