

Ultrasonic Studies and Thermal Conductivity of Sodium Silicate Glasses

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Ultrasonic properties and thermal conductivity of sodium silicate glasses containing cobalt, copper and iron ions in 65 %SiO₂+34%Na₂CO₃+1 %Al₂O₃ have been investigated. Ultrasonic velocity have been measured a by using puls-echo methods at room temperature. The elastic properties of this glasses system were calculated by using experimental ultrasonic velocities and density. Composition dependence of ultrasonic velocity calculated elastic moduli, Debye temperature, Poisson's ratio are discussed.