

Study of Molar Refraction and Polarisability Constant of Aqueous Solutions of KNO_3 and KBrO_3 at Different Temperatures

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Densities and Refractive Indices of solutions of potassium bromate (KBrO_3) have been studied in water and 0.1%, 0.2%, 0.3%, 0.4% and 0.5% (w/v) aqueous solution of KNO_3 with temperature in the range $T = 298.15^\circ\text{K}$ - 313.15°K . The data obtained is utilized to determine Specific Refraction (R_D) and Molar Refraction (R_M) of solutions. The values of refractive indices, molar refraction (R_M) and molar polarizability (α) constant are found to be decreased with decreasing concentration of solute in solvent and these results are also interpreted in terms of interaction in salt solution. It has been verified that Molar Refraction is additive and constitutive property.