To gain more information about the effect of solvent composition on small aliphatic dipeptides (Ala-Ala, Ala-Val, Ala-Leu, Ala-Phe and Ala-Met), the stoichiometric protonation constants of dipeptides were determined potentiometrically using a combined pH electrode system calibrated in concentration of hydrogen ion in water and ethanol-water mixtures (20\% ethanol-80\% water, 40\% ethanol-60\% water, 60\% ethanol-40\% water, (v/v) ). Titrations were performed at 25° C under nitrogen atmosphere and the ionic strength of the medium was maintained at 0.10 M using sodium chloride. The constants of the systems were calculated by using Best computer programme. The results were discussed in terms of macroscopic properties of the mixed solvent and the stoichiometric protonation constants were influenced by changes in solvent composition and also their variations were discussed in terms of preferential solvation.

References