

Some Novel Amino Acid-Schiff Bases and their Complexes Synthesis, Characterization, Solid State Conductivity Behaviors and Potentiometric Studies

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Three new Schiff bases derived from the condensation reaction of thiophene-2-carbaldehyde and DL-alanine, DL-valine and DL-phenylalanine have been synthesized and their Co(II), Ni(II) and Cu(II) complexes have been prepared. The Schiff bases and the complexes have been characterized by their analytical and spectral data. The protonation constants of the Schiff bases and stability constants of the complexes have been determined potentiometrically in aqueous medium at 25 °C and 0.1 M KCl ionic strength. Solid state conductivities of the synthesized substances were using the four-probe technique on a compressed pellet at room temperature.

Key words: Formation Constants, Schiff Bases, Metal Complexes, Potentiometry, Stability Constants