



## CHAPTER II

### PURPOSE OF INVESTIGATION

The purpose of this investigation was to determine whether Gran's method would yield end point volumes (when titrating in mixed aqueous-organic solvents) with the same degree of accuracy and reproducibility as that of the reference titration methods which were described for such specific drugs in the United States Pharmacopoeia XX (generally involved utilization of indicators to detect end point volumes in non-aqueous titration). Mixed aqueous-organic solvents in various compositions were employed in order to increase the solubility of drug such that homogeneous solution may be obtained throughout the titration and determine the limit of solvent composition for using Gran's method in determination of equivalence point.

Moreover, the extended equation from Gran's method was also derived by taking into account the autoprotolysis constant of water and compare this result with Gran's method and the reference titration method.