

CHAPTER II

PURPOSE OF INVESTIGATION



The purpose of this investigation was to determine whether Gran's second method would yield end point volumes in aqueous titration with the same degree of accuracy and reproducibility as that of the standard titration methods which was described for each specific drugs in the United States Pharmacopeia XXI (generally involved utilization of indicators to detect end point volumes in non-aqueous titration). The extended equation from Gran's second method was also derived by taking into account the auto-protolysis constant of water. The results were compared with Gran's second method and the standard titration method.

It would be of interest to study whether Gran's plot would yield accurate end point volumes of acid-base titrations for drugs which had low solubilities in water and precipitate during the course of titration.

The last part of this investigation was to study the effect of ethanol on determination of end point volumes by Gran's second method. Mixed solvent of 40% v/v ethanol/water was employed in order to increase the solubility of drug such that homogeneous solution may be obtained throughout the titration.