Ti Application Note No. T- 40

Title:	**Determination of the phenylglycine content**

***Summary*:**	Determination of phenylglycine by non-aqueous, potentiometric titration with sodium methylate using a special combined glass electrode.

Sample:	Two different phenylglycine samples

Sample Preparation:	none

Instruments and Accessories:	702, 716, 736 or 751 Titrino or 726 Titroprocessor, 6.0239.100 combined glass electrode

Analysis:	Weigh exactly ca. 300 mg sample into a beaker, then add 4 mL methylene chloride and 10 mL 3-chloroaniline. Stir the solution thoroughly for 4 min to dissolve the sample, add 50 mL chlorobenzene and titrate with c(CH_3ONa) = 0.2 mol/L using the MET mode.

Calculation:	1 mL c(CH_3ONa) = 0.2 mol/L corresponds to 30.234 mg phenylglycine. % phenylglycine = EP1 * C01 * C02 / C00 EP1 = titrant consumption in mL C00 = ca. 300 (sample mass in mg) C01 = 30.234 C02 = 100 (conversion factor for %)

Remarks:	– Stir the solution thoroughly during the titration. – Use alternately two different electrodes for the titrations. After three titrations replace the electrode used by the new one and immerse it in dist. water for 5 min before using it again. – Rinse the electrode after each titration first with ethanol and then with dist. water. **Results:** Sample A: AVG(3) = 90.47 +/- 0.26 % phenylglycine Sample B: AVG(3) = 87.37 +/- 0.24 % phenylglycine