

Ti Application Note No. T- 35

Title: Tranexamic acid in injection solutions

Summary: Determination of tranexamic acid in injection solutions by non-aqueous, potentiometric titration with perchloric acid using a glass electrode.

Sample: Aqueous solutions of tranexamic acid in vials

Sample Preparation: none

Instruments and Accessories: 702, 716, 736 or 751 Titrino or 726 Titroprocessor, 6.0133.100 glass electrode and 6.0726.100 Ag/AgCl reference electrode (internal electrolyte LiCl sat. in ethanol; bridge electrolyte c(LiClO₄) = 1 mol/L in glacial acetic acid)

Analysis: Pipette 2.00 mL sample into a beaker, add 20 mL glacial acetic acid and titrate with c(HClO₄) = 0.1 mol/L in glacial acetic acid.

Calculation: mg/mL tranexamic acid = EP1 * C01 * C02 * C03 / C00

EP1 = titrant consumption in mL
C00 = 2,00 (sample size in mL)
C01 = titre of the titrant
C02 = 0.1 (concentration of the titrant in mol/L)
C03 = 157.21 (M(tranexamic acid) in g/mol)

Remarks: For the titre determination potassium hydrogen phthalate is used.

Result:
AVG(6) = 51.27 +/- 0.13 mg/mL tranexamic acid