

# Ti Application Note No. T- 11

**Title:** Anionic surfactants in nickel plating bath

**Summary:** Determination of anionic surfactants in a nickel plating bath by potentiometric titration with TEGO<sup>®</sup>trant A100 using the «Ionic Surfactant» electrode.

**Sample:** Nickel plating bath

**Sample Preparation:** none

**Instruments and Accessories:** 702, 716 or 736 Titrino or 726 Titroprocessor, 6.0507.120 «Ionic Surfactant» electrode and 6.0733.100 reference electrode

**Analysis:** Weigh exactly ca. 6 ... 9 g sample into a beaker and dilute with dist. water to ca. 150 mL. Titrate with c(TEGO<sup>®</sup>trant A100) = 0.004 mol/L in the MET mode in volume steps of 0.8 mL.

**Calculation:** 1 mL c(TEGO<sup>®</sup>trant A100) = 0.004 mol/L corresponds to 1.1536 mg sodium dodecylsulphate (Na DDS).

$$\% \text{ Na DDS} = \text{EP1} * \text{C01} / \text{C00}$$

EP1 = titrant consumption in mL  
C00 = sample weight in g  
C01 = 0.11536

**Remarks:** Clean the electrode surface after every titration with soft paper tissue soaked in methanol.

**Result:**  
AVG(3) = 0.0693 +/- 0.001 % Na DDS