

KF Application Note No. K- 9

Title: Water in explosive pellets

Summary: The water content of explosive pellets is determined according to Karl Fischer after extraction with methanol.

Sample: Explosive pellets

Sample

Preparation: Weigh 10 explosive pellets into a dry septum flask and add ca. 75 mL dry methanol (also weighed). Stopper the flask and stir for 8 h. For the blank determination a flask has to be prepared in the same way but without sample.

Instruments and

Accessories: 701 KF Titrino or 720 KFS Titrino, 703 Titration Stand, printer

Analysis: In the «blank determination» mode, inject 5 mL methanol using a syringe (carry out a fivefold determination). The results of the determinations are stored automatically for the subsequent analysis. For the actual analysis add ca. 5 mL sample solution with a syringe to the titration vessel containing 20 mL conditioned methanol, then start the automatic titration (fivefold determination). The exact mass of the added methanol (blank determination) or sample solution (actual analysis) is determined by difference weighing.

Reagents:

Solvent: methanol (dry)

Titrant: Hydranal Composite 2 (Riedel-de Haën)

Results: AVG(5) = 0.387 +/- 0.004 % water

Settings: 701 KF Titrino

>titration parameters

extr.time 0 s
stop crit.: drift
stop drift 20 uL/min

>preselections

conditioning: on
req.smpl size: on
report: full