

**Application**

**TitroLine alpha *plus***  
**TitroLine *KF***

**Determination of water  
according to KF in CaCO<sub>3</sub>  
(chalk and lime samples)**

**SCHOTT**  
Instruments

## USE

Determination of water in chalk and lime samples ( $\text{CaCO}_3$ ) according to volumetric KF titration.

## APPLIANCES

TitroLine alpha plus KF Module, or  
Titroline KF

## ELECTRODES

Electrode: KF 1100

## CHEMICALS

Solvent: methanol dry or rapid/Composolver E or solvent for 2 component systems

Titrant: single component or two component reagent (1 ml = approx 5 mg  $\text{H}_2\text{O}$ )

## DESCRIPTION

Fired oxides such as aluminium oxide, chromium dioxide, iron(III)oxide or bismuth oxide are insoluble in the KF reagent and can be straightforwardly titrated. Calcium carbonate also behaves similarly.

The solvent is added with the pump. Select the method. Subsequently, the KF method is started on the TitroLine alpha plus or TitroLine KF, and the solvent is automatically conditioned. Press <ENTER> or <START> and insert the sample ID. Press again <ENTER>.

Weigh appr. 2 g of the sample in a glass weighing funnel or something suitable on an analytical balance. Press the tara button. Remove the septum of the vessel and put the sample into the vessel. The glass funnel is then placed again on the balance. Read the absolute weight from the balance display. Press the print button of the balance if the balance is connected to the Titrator or use the keyboard to insert the weight into the TL alpha plus/TitroLine KF. Confirm with <ENTER>. The TL alpha plus/TitroLine KF starts now automatically the titration.

### Electrodes handling

You can store the double platinum electrodes wet (in the titration vessel) or dry.

## NOTES

If you should have further questions with respect to the application, please contact the Application Department of Schott-Geräte; tel.: **+49 6131 66 -5118 or -5062**

## LITERATURE

Also refer to:

Hydranal®-Workshop - Water Reagents according to Eugen Scholz for Karl-Fischer titration, Riedel-de-Haën.

Water determination by Karl-Fischer titration, Theory and Practice, G. Wieland, GIT Publishers.

## TitroLine alpha plus Method and TitroLine KF methods

**You can use the standard parameters settings first in the Titroline KF and TitroLine alpha plus. The extraction time for samples with external extraction is about 10 seconds.**

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