

**Application**

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

**Determination of Water  
according to KF in  
potato chips**

**SCHOTT**  
Instruments

## USE

Determination of water in food stuff such as potato chips.

## APPLIANCES

TitroLine alpha KF- plus Module,  
Titroline KF  
Heatable magnetic stirrer TZ 1870

## ELECTRODES

Electrode: KF 1100

## CHEMICALS

Solvent: dried methanol/Composlver or solvent for 2 component systems and formamide (2/1)

Titrant: single component or two component reagent (1 ml = approx 5 mg H<sub>2</sub>O)

## DESCRIPTION

Food stuff such as potato chips can normally not dissolved in methanole or any other solvent. But the water can be extract using a heating source to heat up the sample.

The solvent is added with the pump. Set the knob of the heating source (heatable magnetic stirrer) to 50 °C. Wait 3-4 minutes. 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. The potato chips have to be crushed in small pieces before. 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 should maybe set to a longer time from 10 seconds to 60 seconds – or even longer.

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