

PREPARATION OF STANDARD SAMPLES FOR X-RAY FLUORESCENCE  
ANALYSIS OF SULPHUR ON FILTERS USED FOR AIR MONITORING

Reproducible standard samples are prepared by transferring defined aliquots of calibrated standard solutions to the filter. The distribution of the solution is limited by a circle of China ink, which has the same diameter as the opening of the filter- and sample holder.

STANDARD SOLUTIONS

A series of defined sodium-sulphate solutions containing 5-1000 mg sulphur/liter (corresponding to 0.25 - 50 µg/S filter) are used for the calibration.

PREPARATION OF FILTERS

Using a sulphur-free water resistant China ink, e.g. Shachihata "Artline 70", a central circle, 25 mm in diameter is drawn on the filter. After the China ink has dried, 50 microliters of a standard solution are transferred to the filter. The solution is sucked up by the filter and evenly distributed within the area limited by the China ink circle. The filter is dried under an infrared lamp.