

# BREAKTHROUGH TECHNOLOGY AUTOMATED SAPONIFICATION TO ISOLATION

Automates fat-soluble vitamin, cholesterol, crude and total fat extraction

Provides ability to create custom methods

Eliminates bi-phase extractions

Reduces solvent usage to 50-100ml/assay

Eliminates chemical handling to improve safety

Full record keeping



The ANKOM<sup>FLEX</sup> Analyte Extractor is designed to simplify fat-soluble vitamin, cholesterol, and crude and hydrolysis fat determinations. Supporting up to four samples at a time, the system will automatically complete digestion, solid phase extraction (SPE) and evaporation in about two hours.



## Digestion

Digestion vessels have been designed to allow samples to be weighed directly into the system eliminating transfer error. Filtration takes place without user intervention, further reducing technician labor. Once the system is purged with nitrogen and free of oxygen, reagents are pumped into each vessel while the sample is mixed. As little as 50-100ml of solvent is needed per run.



## Solid phase extraction

After digestion, the sample solution is cooled and transferred through specially designed filters onto the SPE columns. Water-soluble components are separated from the analyte by adsorption onto the SPE columns.



## **Evaporation**

A nitrogen atmosphere, positive flow and low temperature evaporation protects sensitive analytes from oxidation and optimizes solvent evaporation. Once the process is complete, the isolated analyte is ready for reconstitution and quantitation by HPLC, GC or gravimetric analysis.

# STATE-OF-THE-ART SOFTWARE

The ANKOM<sup>FLEX</sup> Analyte Extractor has touch screen functionality and a user-friendly interface. Digestion time, temperature, and pressure is monitored and controlled at all times. The software allows custom method design and research capaibilities.

#### **METHODS**



Runs pre-programmed and custom methods

#### **DIAGNOSTICS**



Includes monitoring, calibration, and troubleshooting of the system

### **RECORDS & UPDATES**



Contains records of assays, faults, calibrations, and services



# **SPECIFICATIONS**

## **Sample Specifications**

Sample Types: Validated for all nine sections of the AOAC NIST Food-matrix Traingle

Vitamin / Fat Ranges: 0%-100%

# of Assays per run: 4 assays in ~2 hours, 16 per day, 80 in a 5-day week

Sample Size: Up to 10g, larger volumes can be saponified outside of the instrument and aliquots

introduced for extraction and evaporation

#### **Instrument Specifications**

**Dimensions:** 77 cm (30.5") W x 81.3 cm (32") H x 45.7 cm (18") D

Weight: 54.4 kg (120 lbs)

**Nitrogen Supply:** 5.5-6.9 bar (80-100psi), 99.998% purity

Ventilation: Exhaust lines are ready to be connected to an exhaust system, eliminating under-hood

instrument positioning

Power Requirements: 220V-240V ~50/60Hz 8A, 100V-120V ~50/60Hz 15A

**Reservoirs:** Four reservoirs programmable by the user for the required solutions

## **ABOUT US**

ANKOM Technology is the developer of Filter Bag Technology (FBT) used around the world for fiber and fat analysis. With customers in over 140 countries, ANKOM has a reputation for quality and innovation. Constantly seeking to develop better methods for time consuming analytical methods, ANKOM Technology focuses on customers needs. We offer instruments, chemicals and other ancillary products to determine fat soluble vitamins, cholesterol, dietary fiber, crude and detergent fiber, crude and total fat, in vitro and in situ research and more. We work hard to keep costs low with quality and service high.

