HORIBA
Scientific

VULCAN

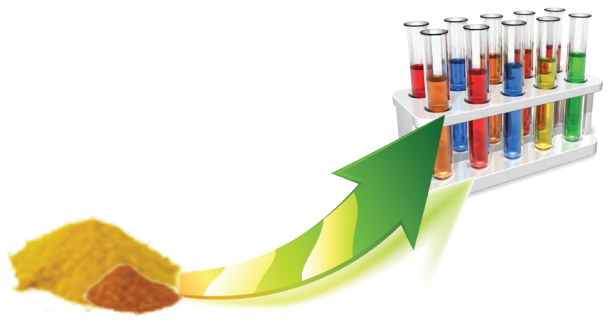
Automated Digestion System

Total Solution for Sample Preparation to enhance **productivity**

- One instrument for the whole preparation
- Up to 84 samples prepared at once
- Sample for ICP-AES, ICP-MS, AA ....
- Speed, safety, repeatability

Vulcan 84 is the first automated workstation product, combining the two essential steps of chemical sample preparation – sample digestion followed by sample work-up.

- Freedom from manual acid handling and exposure to acid fumes
- Substantial cost savings in sample analysis expenditure
- Contamination free environment for trace level sample preparation
- Overcomes inconsistencies and uncertainties introduced by repetitive and tedious process
- Increase in laboratory throughput
- Saves prime lab space with smart inbuilt fume hood
- Documentation of sample preparation processes
- Effective use of skilled manpower through unattended operations
- Provides safe and healthy work environment
- Processing of 84 samples in 50 ml vials
- Automatic and precise addition of corrosive acids, reagents and internal standard
- Multistep heating of hot blocks.
- Makeup volume at the end of digestion
- Stirring of sample during the process
- Cooling digestion vials between reagent additions
- Transferring and diluting samples to autosampler racks
- Can handle two digestion recipes at same time

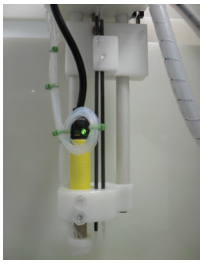


Heating (Hot Blocks)

- Capable of heating up to 400º C
- Hot blocks available to accommodate 15, 25, 50 and 100 ml digestion vials
- Vials available in Teflon, Glass and Polypropylene material
- Customise hot block available to accept specific size and shape of digestion vessel
- Teflon® coated graphite block and housing to prevent contamination
- Anodised Aluminum Block for higher temperature applications
- Choice of All-plastic housing for extreme corrosion resistance
- Unparalleled Temperature homogeneity of 1.50 C across the block

Makeup Volume

Sample levels are monitored for individual vials using non contact level sensor. Peristaltic pump fills in quickly major amount for desired level. Accurate Syringe pump dispensing and level sensor monitoring is used in achieving final level. This unique combination of syringe and peristaltic pump helps speed up process with out losing accuracy.



Dilutions and Sample Transfer

With the help of Teflon coated Carbon Fibre probe and Sample loop samples are picked up, stored, diluted and transferred to autosampler racks. Sample Probe and Loop is thoroughly cleaned externally and internally between each sample processing. It is possible to generate multiple dilutions for one sample in one go.

Cooling

Pneumatically driven acid resistant Tray Lift brings samples out of hot blocks. Tray Lift is placement forces cool air to pass over the vials, bring them rapidly to room temperature for multiple reagent additions and Volume Make-up.

Stirring

Vigorous mixing of sample is effected through rapid stream of air bubbles. Duration of mixing for each sample can be set as per need.

Wash Station

Two Chambered wash station is used for cleaning the probes between two sample. Wash station has two separate peristaltic pumps circulating clean water for efficient cleaning.

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