

# VERSA® Solid Phase Extraction Workstation

urora's VERSA® Solid Phase Extraction (SPE) workstation offers efficient extraction with the capacity of processing up to 72 cartridges sequentially. The on-deck modules such as positive pressure applicator, N₂ dryer, and optional Shaker-Heater allow for pre-extraction sample preparations and post extraction derivitization of analytes. Throughout the SPE process and transfer of eluted or derivatized sample to GC/LCMS vials, the VERSA® workstation utilizes disposable tips to eliminate cross-contamination.

The compact 4 channel VERSA® 10 SPE workstation offers an automated solution for 1 and 3 mL cartridge at low throughput extractions at an affordable price. The VERSA® 1100 SPE offers the most flexibility by accommodating 1, 3 and 6 mL cartridges as well as 96-cartridge SPE plate formats. Researchers can enjoy the freedom to achieve full optimization of any SPE protocol by having both positive pressure applicator and/or negative pressure (vacuum manifold) on-deck with bulk dispensing ReagentDrop module.

# Across

VERSA® 1100 SPE Workstation

### **FEATURES & BENEFITS**

- 4 or 8 channel disposable tip syringe pipettor with single channel functionality offers versatility and prevents cross-contamination
- 5 to 8 channel ReagentDrop on VERSA® 1100 SPE conserves reagents and saves tip costs
- Compatibility with organic and aqueous reagents
- SPE formats: 1, 3 and 6 mL cartridges or 96 SPE cartridge plates
- Gripper enables on-deck:
  - Negative or positive pressure for efficient flow through the cartridges
  - N<sub>2</sub> drying and derivatization
- Shaker-Heater (RT to 90°C) for efficient sample preprocessing and derivatization
- Capability to perform Liquid Liquid Extraction
- Open system Compatibility with diverse kit chemistry and labware
- Exhaust provision for volatile reagents

### **APPLICATIONS**

- Clean-up, isolation and concentration of biological analytes such as:
  - Food safety
  - Vitamin D from blood / serum samples
  - Drugs of abuse in forensic analysis
  - Compounds for drug discovery
  - Iso-flavonoides from urine samples
  - Aflatoxins from seafood products
  - Growth promoters in blood
  - Semi-volatile or non-volatile analytes
- Automation of sample preparation



VERSA® 10 SPE Workstation

## SAMPLE WORKFLOW ON VERSA® SPE (using Aurora Biomed's C8/SCX columns)

Conditioning Loading

C8/SCX (500 mg / 5 mL) with 3 mL methanol, distilled water,  $0.02\,\mathrm{M\,KH_2PO_3}$  buffer (pH 3.0) in sequence

3 mL serum and 2 mL 0.02 M KH<sub>2</sub>PO<sub>3</sub> buffer (pH 3.0) applied to C8/SCX

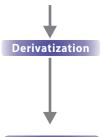
Washing

3 mL distilled water, 2 mL 0.1 M acetic acid, 3 mL methanol for washing followed by drying columns for 5 minutes

Elution 3 m isop 80:

3 mL elution solvent: dichloromethane / isopropanol / ammonium hydroxide, 80:15:5

Option to collect multiple fractions

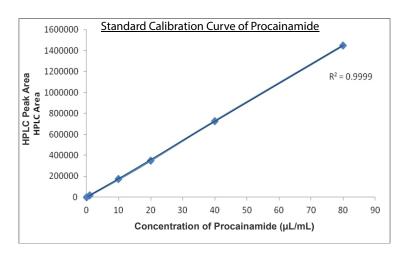


Fraction Collection

3 mL eluate transferred to Shaker-Heater module and evaporated with nitrogen gas at 40 °C to 50 µL. Followed by redissolving into with 0.95 mL moving phase (methanol/KH<sub>2</sub>PO<sub>3</sub> pH 3.0, 15:85)

HPLC / LCMS (vials or plates) Transferring and reformatting of derivatized samples (900  $\mu$ L) to GC/LCMS vials

### **VALIDATION DATA ON PROCAINAMIDE**



### Average recovery of procain a mide from each replicated experiment (n=11).

		Average Recovery %	Standard Deviation %	CV %
В	atch 1	88.51	2.47	2.79
В	atch 2	98.35	4.62	4.70
В	atch 3	87.86	3.82	4.35
В	atch 4	92.99	4.06	4.37

### **CONSUMABLES**



1, 3, 6 mL cartridges and 96 SPE cartridge plates

### **OPTION**



Liquid Liquid Extraction

VERSA® 1100

### **SPECIFICATIONS**

### VERSA® 10

Volume (μL)	1 - 1000	1 - 1000
Deck Capacity	5 upper and 2 lower deck positions	15 deck positions
Pipetting Head (disposable tip)	4 channel syringe pipettor	4 or 8 channel syringe pipettor
ReagentDrop	N/A	5 to 8 channel ReagentDrop
Supported Cartridges	1 or 3 mL standard cartridges	1, 3 or 6 mL cartridges or 96 SPE cartridge plate
Pressure Module	12 channel positive pressure module	4 channel positive pressure module and/or vacuum manifold (negative pressure)
Nitrogen Dryer	12 channels	24 or 96 channels
Shaker-Heater (2400rpm, RT to 90°C)	Included	Optional
Accessory Options	<ul> <li>HEPA / UV / LED light enclosure</li> <li>Reagent block cooler (2-90°C)</li> <li>Other adaptors available</li> </ul>	<ul> <li>HEPA / UV / LED light enclosure</li> <li>Reagent block cooler (2-90°C)</li> <li>Liquid level sensing for liquid-liquid extractions</li> <li>Other adaptors available</li> </ul>
Width x Depth x Height (cm)	64 x 49 x 55	99 x 75 x 90
Weight (kg)	30	162

NOTE: Instrument specifications may change without notice as an ongoing effort of product improvement.