

Ultrafine/Fine/> PM2.5 Sampler

9 L/min

ADVANTAGES

Choose the Sioutas Personal Impactor for the highly efficient collection of airborne particles in five size ranges:

- > 2.5 μm
- 1.0 to 2.5 μm
- 0.50 to 1.0 μm
- 0.25 to 0.50 μm
- < 0.25 μm

Recent epidemiological studies show that ultrafine, fine, and > 2.5- μm particles may have greater pulmonary inflammatory potency than larger particles and associate increased morbidity and mortality with increased exposure to these particles. The Sioutas Impactor is the only personal impactor that precisely separates and collects ultrafine, fine, and > 2.5- μm particles simultaneously.

Certifications

ET  performance verified with Leland Legacy Sample Pump

MORE INFORMATION

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Sioutas Personal Cascade Impactor

Separates Ultrafine, Fine, and > 2.5- μm Particles Simultaneously

Precise particle separation

- Particle size cut-points: 2.5, 1.0, 0.50, and 0.25 μm
- The only personal impactor that efficiently samples ultrafine, fine, and > 2.5- μm particles simultaneously
- Maintains high collection efficiency even at high particle concentrations

Optimized at a 9 L/min flow rate with low pressure drop for 24-hour sampling

- Improves analytical sensitivity
- Minimizes non-detectable samples

Preserves unstable compounds

- Chemically inert collection substrate
- No impaction grease to contaminate sample

Minimal particle bounce and internal wall losses

Suitable for sampling in outdoor** and indoor environments

Size-fractionated samples can be analyzed gravimetrically, chemically, and microscopically

Small and lightweight for personal or area sampling



Sample Time:	Varies
Sample Rate:	9 L/min
Sample Pump:	Leland Legacy
Sample Media:	25 and 37-mm filters
Tubing:	3/8-inch ID



Leland Legacy Sample Pump

The compact, portable, and battery-operated Leland Legacy Sample Pump provides a 9 L/min flow rate for optimum Sioutas Impactor performance.

For more information, see pages 24-25.

The patented[†] Sioutas Personal Cascade Impactor* separates and collects airborne particles in five size ranges: > 2.5 μm , 1.0 to 2.5 μm , 0.50 to 1.0 μm , 0.25 to 0.50 μm , and < 0.25 μm . When used with PTFE filters, the Sioutas Impactor is highly efficient at collecting particles without using impaction grease or substrate coatings and at retaining unstable compounds for size-fractionated chemical analysis.

Use the Sioutas Impactor with the Leland Legacy Sample Pump at 9 L/min to ensure precise particle separation at the specified cut-points. Particles above each cut-point are collected on a 25-mm filter in the appropriate stage with particles less than 0.25 μm collecting on the 37-mm after-filter (optional). The small, lightweight Sioutas Impactor simply clips to a worker's collar or lapel for personal sampling and is also suitable for area sampling.

Description	Cat. No.	Qty.
Sioutas Personal Cascade Impactor	225-370	ea
Tubing, Tygon, 3/8-inch ID, fits Sioutas Impactor and Leland Legacy pump, 10 feet	225-1351	ea

Filters for Sioutas Impactor

Description	Cat. No.	Qty.
After-filter, PTFE, † 37 mm, 2.0 μm (optional)	225-1709	50
Collection Filter (filter for 4 stages), PTFE, ‡ 25 mm, 0.5 μm , required	225-3708	250

* Developed by Dr. Constantinos Sioutas of the University of Southern California in partnership with the Mickey Leland National Urban Air Toxics Research Center (NUATRC)

† U.S. Patent No. 6,786,105 (University of Southern California)

‡ Back pressure on PTFE filters can vary within the same lot.

** Requires special provisions; see product operating instructions