



KANOMAX
The Ultimate Measurements

Nanosampler II

Model 3182

The world's first and only cascade impactor which classifies 0.1 μm particles under ambient pressure!

A low pressure impactor (LPI) is usually used for sampling PM 0.1, however, an LPI requires a low pressure vacuum or it will cause a change in particle composition. The Nanosampler can be used to sample a greater amount of PM 0.1 particles at ambient pressure without causing a distortion in particle composition.

Applications

- Aerial Environmental Studies
- Health Impact Assessments
- Indoor Aerosol Classifications
- Vehicle Emission Studies

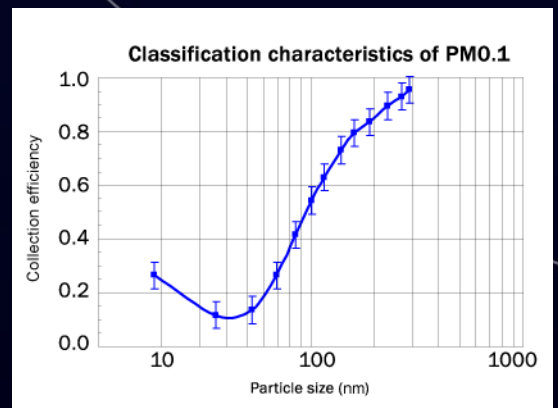


Features & Benefits

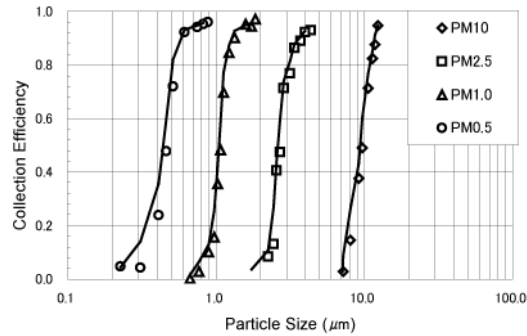
- Particle classification as small as 0.1 μm
- Five stages of PM : 10, 2.5, 1.0, 0.5, 0.1 μm
- Enables the use of a higher sampling flow - 40 L/min
 - This higher flow shortens the sampling time needed for the weighing or analysis of particulate matter.

PM0.1 Principle

Fiber filters utilize several mechanisms for aerosol collection such as inertial, gravitational settling, interception, and diffusion. Each collection efficiency depends on particle size and filtration velocity. Large particles are collected in a filter by inertial impaction at a high filtration velocity while small particles are removed from the air by Brownian diffusion. The Model 3182 controls its diffusion collection increasing filtration velocity, and collecting particles only by inertia.



■ PM 0.5 - 10 Classification Performances



*Nanosampler II Model 3182 is created from a collaboration of Kanazawa University, National Metrology Institute of Japan, Advanced Industrial Science and Technology and KANOMAX JAPAN INC.

Nanosampler II Model 3182 Specifications

Classification Method	Inertial Collection
Classification Range	PM 10, PM 2.5, PM 1.0, PM 0.5, PM 0.1 and Backup Filter
Absorption Material	Impactor Filter : PM 10/ PM 2.5/ PM 1.0/ PM 0.5 , Backup Filter SUS Fiber : PM 0.1
Sampling Flow Rate	40 L/min
Dimensions	φ 77 mm × 201 (H) mm (excluding projection)
Weight	<2.0 kg
Accessories	Impactor Filter, PM 0.1 Cartridge, Carrying Case
Optional Spare Parts	Flow Control Unit Vacuum Pumps (100 V / 200 V) PM 0.1 Cartridge (PM 0.1 Holder and Fiber Filter), PM 0.1 Holder, PM 0.1 Fiber Filter, PM 0.1 Storage Case, PM 0.1 O-ring Set and Support Plate, Impactor Filter, Storage Petri Dish for Impactor Filter, Tygon Tube, Tweezors

Specifications subject to change without notice.



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