

# Nano Particle Collector 4650

The HCT 4650 Nano-Particle Collector is typically used to sample aerosol nanoparticles which are charged positively. The negative potential between the collection plate (Electrode) and the sampling chamber (Ground) attracts positively charged particles to the collection plate.

In general, since the substrate (such as TEM grid, silicon wafer, etc.) is placed with adhesive tape on the collection plate, particles are collected uniformly on the substrate. General application is to sample nanoparticles passing a Differential Mobility Analyzer (DMA).

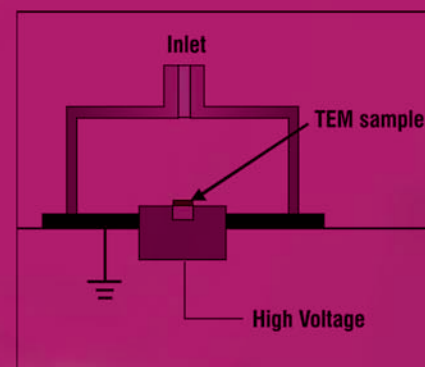
The deposit rate of the particles onto the substrate is governed by the particle concentration entering the sampling chamber, the charge of the particles, the sampling flow rate, and the voltage on the electrode.

## Features and Benefits

- The HCT 4650 Nanoparticle Collector helps aerosol researchers sample charged nanoparticles. The General application is to sample nanoparticles passing a Differential Mobility Analyzer (DMA) onto collection plates for further analysis.
- Easy to operate: Touch Screen LCD Panel
- Sampling Particle Size : 2 ~ 200 nm
- Simple design
- Lightweight

## Applications

- Particle sampling in clean-room and associated controlled environments
- Samples for SEM (Scanning Electron Microscope)
- TEM (Transmission Electron Microscope)
- Samples for AFM (Atomic Force Microscope)
- STM (Scanning Tunneling Microscopy)
- Nano-Materials Evaluation
- Air Pollution Sampling



## Specifications

- Sample Flow Range : 1 ~ 3 L/m
- Flow Rate Accuracy :  $\pm 5\%$  of Full Scale
- Gas Temperature Range : 10 ~ 50 °C
- Gas Pressure Range : 1  $\pm$  0.2 ATM
- Operating Hours : 6 hr @ 3.0 L/min (Using battery)
- Battery Charging Time : 4hr
- LCD Display : 16 x 4 Line LCD
  - Display the present time
  - Set up the start-up time
  - Set up the operation time
  - Display the remaining battery
- Dimensions
  - L x H x W : 180 x 210 x 160 mm
  - Impinger : 280 mm x  $\phi$  46
  - Weight : 2.6 kg
  - Power : 100~230 VAC, 50~65 Hz