

Electrodynamic Cage Traps

ELECTRODYNAMIC CAGE TRAPS



State-of-the-art electrodynamic quadrupole cage traps for contactless levitation, excitation and analysis of microdrops.

Advanced benchtop instrumentation for the analysis of microdrops, aerosols and other particulate in the order of microns to tens of microns in diameter.

Applications include aerosol characterisation, atmospheric chemistry / dynamics, biological research, etc.

FEATURES & BENEFITS

Simple microdrop generation combined with electrodynamic levitation

Seamlessly utilise PolyPico patented microdrop generators to generate samples for the electrodynamic cage trap.

Accurate sample positioning

Holding rings allow for precise vertical placement of microdrops in observation chamber.

Four port viewing chamber

Multiple optical excitation sources and spectral analysis instruments can simultaneously analyse samples.

Integrated control system

Compact control system for control of dispensing and the electrodynamic cage trap parameters.

Optional integration with PicoSpotter dispensing head

The electrodynamic cage trap can be supplied whereby it shares a dispensing head with a PicoSpotter platform, thus allowing the benefits of having a PicoSpotter and a electrodynamic cage trap.

Humidity control (user implemented option)

The cage trap includes ports for the user to implement their own bespoke humidity control strategy.

Patented disposable dispensing cartridge technology

No cross-contamination by design, change fluids in a matter of minutes, no wastage of precious fluids, with a nozzle anti-clogging feature.

1-year & extended warranties

Includes a 1-year parts and labour, return to factory warranty. Option to extend the warranty for 3 to 5-years also available.

APPLICATIONS & MATERIALS

Our micro dispensing system is proven to deliver for a wide range of applications and materials, including:

- ✓ Microdrop analysis
- ✓ Aerosol analysis
- ✓ Air-born virus transmission research
- ✓ Nano particle research
- ✓ Atmospheric chemistry
- ✓ Crystal analysis
- ✓ Non-contact chemistry / biology
- ✓ Single Cell analysis
- ✓ Multi-spectral analysis of particulate matter

ACCESSORIES

Additions, upgrades and replacement parts.

A wide range of accessories including cameras, dispensing cartridges, maintenance kits and more.



Target Viewing Camera

The vertical target viewing camera is an invaluable accessory to assist in the precise alignment of dispensed microdrops and the target locations.



Dispensing Cartridges

Polypico offer an off-the-shelf range of dispensing cartridges with different orifice sizes, for immediate delivery. Standard orifice sizes include: 30µm; 50µm; 70µm; 100µm and 120µm.



Filling Bridge

Filling bridges make the filling of dispensing cartridges from 96 well plates simple and easy to do. They are also a convenient way of storing dispensing cartridges.



Suction Cups Adapter

Suction cup adapters fit standard 200ul pipettes. Suction cup adapters are used when aspirating fluids into dispensing cartridges.



Maintenance Kits

Service and maintenance kits are available for the PicoSpotter systems / robotics platform, which consists of lubricants and instructions on the cleaning and reapplication of lubricants.

SPECIFICATIONS

Levitated micro-drop size	Application specific (fluid dependant). Typical range: 5pl to 100pl
Holding Rings	2
Trap electrode voltages	Frequency and amplitude adjustable
Dimensions of Electrodynamic Trap	Approx: 30cm x 30cm x 40cm
Weight	Approx: 5Kg