Quantum Cores

Infleqtion

For over 20 years, Infleqtion has been the trusted supplier of high-precision components for cold atom research worldwide. To accelerate your research, Infleqtion offers the doubleMOT, ready to perform upon delivery, as well as proven UHV components that form a complete solution for cold atom experiments.

doubleMOT

The workhorse of the cold atom laboratory, the doubleMOT is a self-contained, tabletop, UHV system that forms the backbone of Infleqtion's complete cold atom solution.

infleqtion.com/quantum-cores/doublemot/



01 TriCoil

Space-efficient magnetic field generator for cooling and trapping experiments
*add on

02 UHV Glass Science Cell

Where the science happens. Optimized for optical flatness and AR-coated for common cooling wavelengths

03 Self-contained Vacuum System

Shipped under vacuum for immediate use - no need to further assemble, bake, or evacuate using external pumps

04 Integrated Ion Pump

Maintains pressures < 0.8 nTorr for UHV applications

05 2D MOT Magnets

Magnetic field gradient optimized for 2D MOT generation
*add on

06 Cold Atom Source Rb or Cs

The core of the high-flux atom delivery system

07 Picas

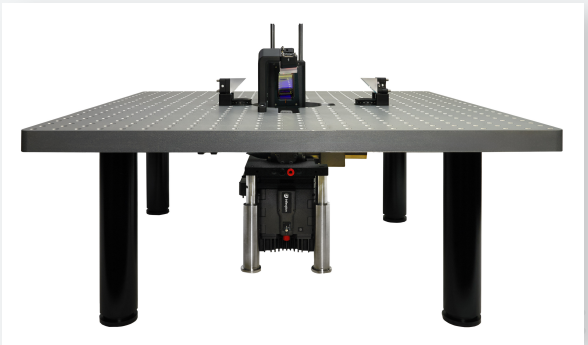
Turn-key 2D MOT generation for the cold atom source
*add on



Physics Platform

Designed specifically for the doubleMOT, the system provides accurate and seamless laser beam delivery for 3D MOT generation

infleqtion.com/quantum-cores/physics-platform/



For more information, please contact sales@infleqtion.com or visit infleqtion.com

Quantum Cores

Whether you are building your first experiment or probing new ideas, Infleqtion has the complete solution for your cold atom research.

UHV Glass Cells

Hermetic glass cells with AR coatings optimized for common cooling wavelengths and superior flatness performance.

infleqtion.com/quantum-cores/uhv-glass-cells/



Cold Atom Source Cell (CASC)

The CASC provides a high flux of laser-cooled atoms via pinhole to any cold atom experiment. Available in Rb, Cs, or both.

infleqtion.com/quantum-cores/cold-atom-sources/



Picas

A compact, alignment-free beam delivery package for 2D MOT generation. Available as fixed magnets or adjustable coils configuration for complete 2D MOT customization.

infleqtion.com/quantum-cores/picas/



miniMOT V2

Compact, off-the-shelf trapped atom vacuum system to create and control quantum matter. Available in Rb or Cs.

infleqtion.com/quantum-cores/minimot-v2/



Magnet Assemblies

Space-efficient magnetic field solutions for 2D and 3D MOT creation. Generates MOT and bias fields in multiple dimensions, such as the TriCoil Assembly.

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