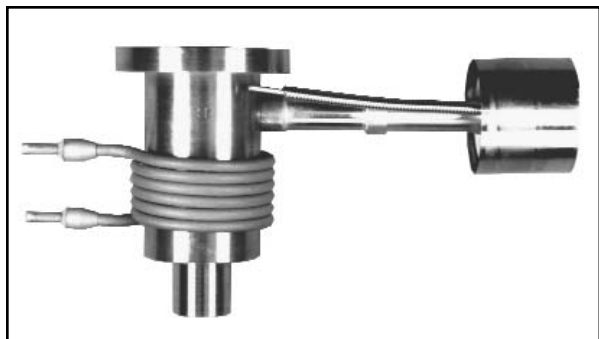


TB-177

Ionizer / Reservoir Assembly



HeatWave Labs Model 101145 Ionizer/Reservoir assembly is commonly used as a Cesium Source. Typically a 1-5 gram ampule of pure Cesium is loaded into the reservoir. Upon heating the reservoir, Cesium vapors enter hot frit region where >99% ionization occurs. In a typical SIMS application 1mA of Cs⁺ ions are extracted to 2-25KeV. Beam diameters down to microns size with energy spreads of a few eV are possible. The frit is heated with a separate heater up to 1100°C. Reservoir quick cooling assembly (not shown) controls Cs evaporation rates.

Typical heater parameters:

Reservoir	0.2-1A @ 33V, 210°C
Frit	30A @ 8V, 1100°C

