McPHERSON

VACUUM ULTRAVIOLET DEUTERIUM LIGHT SOURCE

The Model 634 Deuterium lamp features a Magnesium Fluoride window, 1mm diameter emitting plasma and ~f/6 output. The source system includes cables, lamp housing and a power supply for lamp operation. This source is useful for vacuum ultraviolet (UV) and deep UV operation. Output between 380 and 165nm is continuous; below 165nm, molecular lines predominate. Because the sealing window is polished Magnesium Fluoride, cut with its optical axis perpendicular to its face, the source works to wavelengths as short as 115 nanometers.

Over time, accumulation of contaminants on the outside surface of the window degrades lamp output, eventually to a point where the lamp is no longer useful for operation at short wavelengths. One remedy is to set up the source with a small flow of pure Argon to buffer the



outside surface of the window, with a differential pumping system between the lamp and the vacuum system. With this method, there are no observable external window degradation effects. There is also the possibility to remove the absorbing contaminant film, by polishing the window as required.

30 W lamp | f/6 beam | Magnesium Fluoride window | No flowing gas, coolant or pumps Optional, calibration & vacuum UV reflective condenser

This lamp has a 5" outer-diameter mounting flange. It is suitable for use on the slit assemblies found on most McPherson spectrometers. This light source system is convenient to use, demonstrates excellent stability, and has found widespread popularity through the vacuum and deep UV.



Model 634 Source system Part No. 105-103053-0



Power supply: Easy to use, line operated, universal input • Width: 8.38 In (21.3 cm)

• Height: 5.22 In (13.3 cm)

• Depth: 14.38 In (36.5 cm)