

### Model 629 Hollow Cathode Source

- Resonance lines of rare gases, rich source of Noble gas spectra, range: 20 to 200nm
- Stainless steel cathode, Aluminum anode
- Extremely stable operation, electrically quiet
- Available with various apertures allowing simulation of a slit or pin hole

The Model 629 Hollow Cathode Light Source is a continuous gas discharge source that can be used with molecular or rare gases. It is electrically quiet and is a rich source of spectral lines in the extreme UV to at least 20nm (62eV.)

The source is a "Schueler" lamp which is known to produce strong Ion lines. It differs principally from a capillary discharge source in that the negative glow of the discharge is viewed directly, rather than through the positive column of neutral gas, as is the case in a capillary discharge.

The source features a water cooled anode and cathode. The cathode is stainless steel and the anode is aluminum. A Kel-F flange electrically isolates the cathode from the anode. An optional slit seal adapter is also available that can be used to limit the gas leak into the monochromator slit opening.

For routine operation commercial grade gases are generally used. A 1/8 NPT tapped hole is located in the top of the anode for installation of a thermocouple gauge to monitor pressure. This source requires water cooling via tap or recirculator.

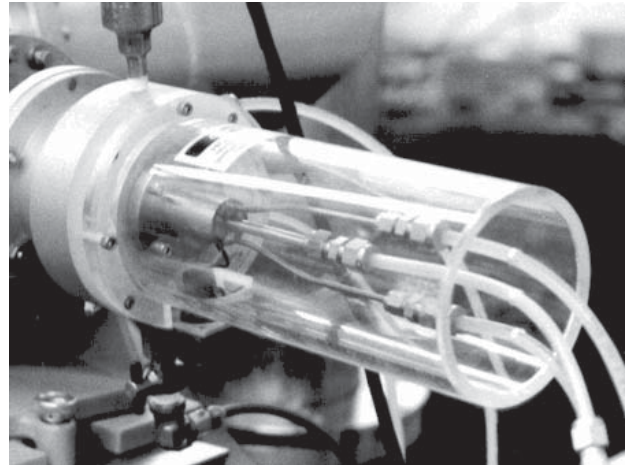
A 2kV supply producing 250 to 500mA with ballast should be used to operate the source. Refer to the McPherson Model 730 supply for more information.

#### Reference:

"Continuous Discharge Line Source for the Extreme Ultraviolet" by F. Paresce, S. Kumar and C. Bowyer Applied Optics, Vol. 10 No. 8, page 1904, 1971

#### Order Information:

Model 629; Part No. 8105-0042-0; Hollow Cathode Lamp



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