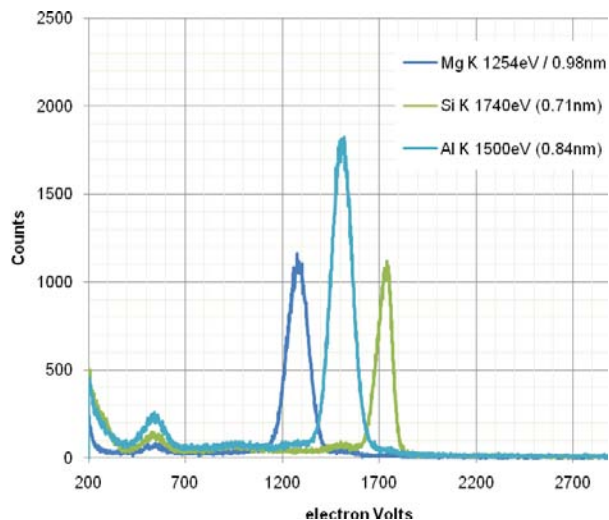


McPherson 642-1 multi-anode soft x-ray calibration source (aka 'Manson' source) used with Amptek Si detector with proprietary plastic window. The Amptek detector was mounted directly on the light source calibration branch with 100um pinhole.



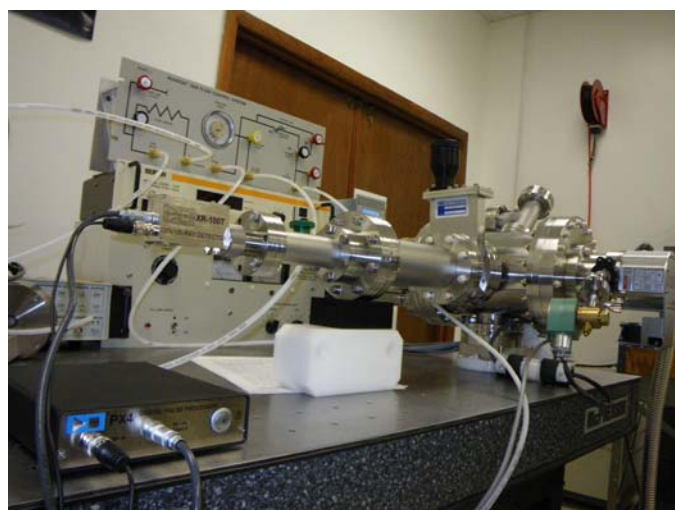
Data collected with Amptek ADMCA software.

Selected McPherson 642-1 multi-anode soft x-ray emission line energies listed below. Data traces above and on reverse. Amptek detector was operated at factory default settings. McPherson, Inc. Model 248/310 soft x-ray grazing incidence spectrometer used at 88-deg angle of incidence can reach some of these lines.

Anode Material	Line Energy (eV)	Wavelength (nm)
Ti L	395.3	3.14
O K	524.9	2.36
Mg K	1253.6	0.99
Al K	1486.7	0.834
Si K	1740	0.713
Mo L	2015.7	0.615
Ti K	4511	0.275



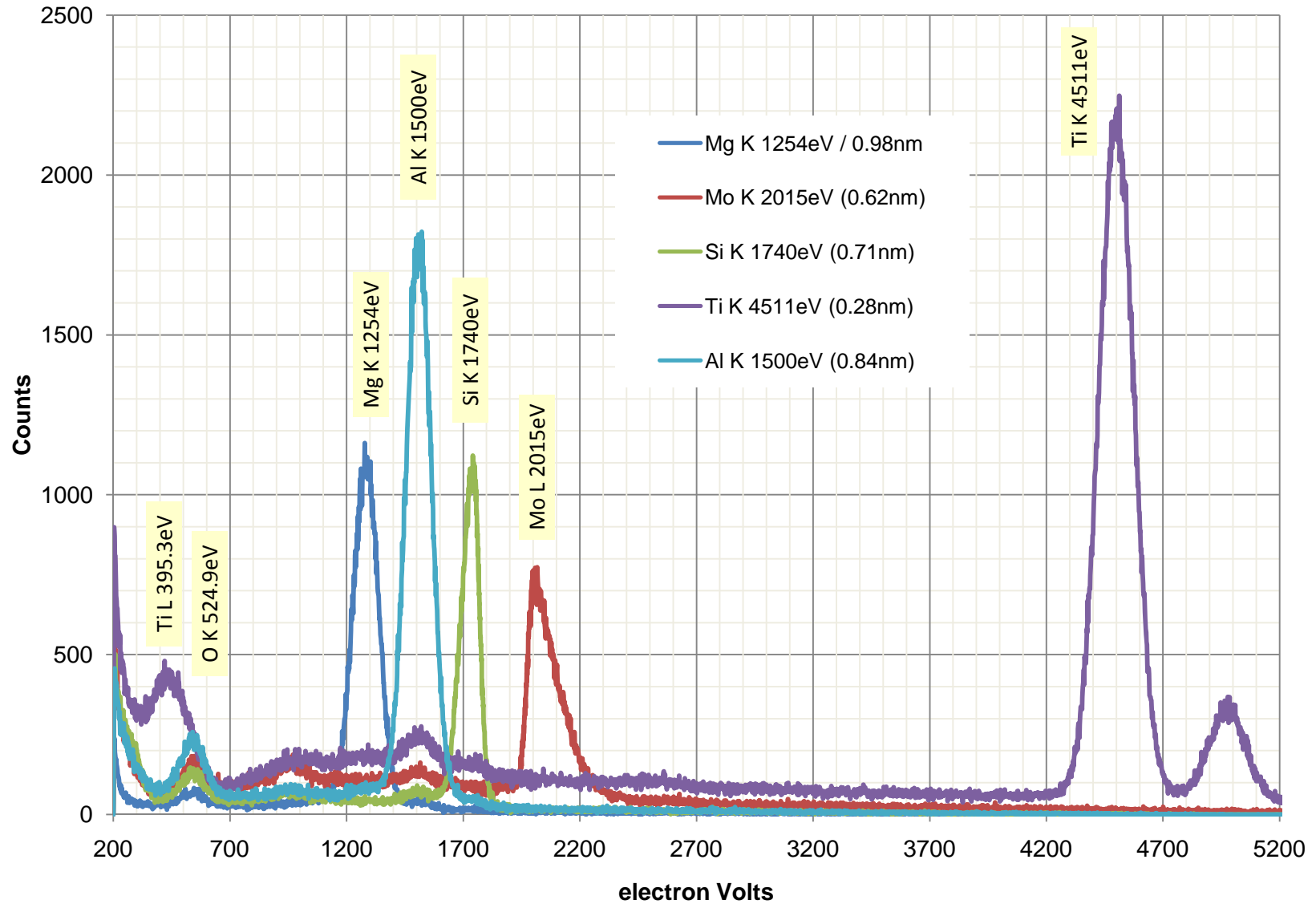
McPherson 642-1 multi-anode soft x-ray calibration light source shown with Model 02 proportional counter and gas flow control system; McPherson, Inc. Model 248/310 soft x-ray grazing incidence spectrometer in foreground.

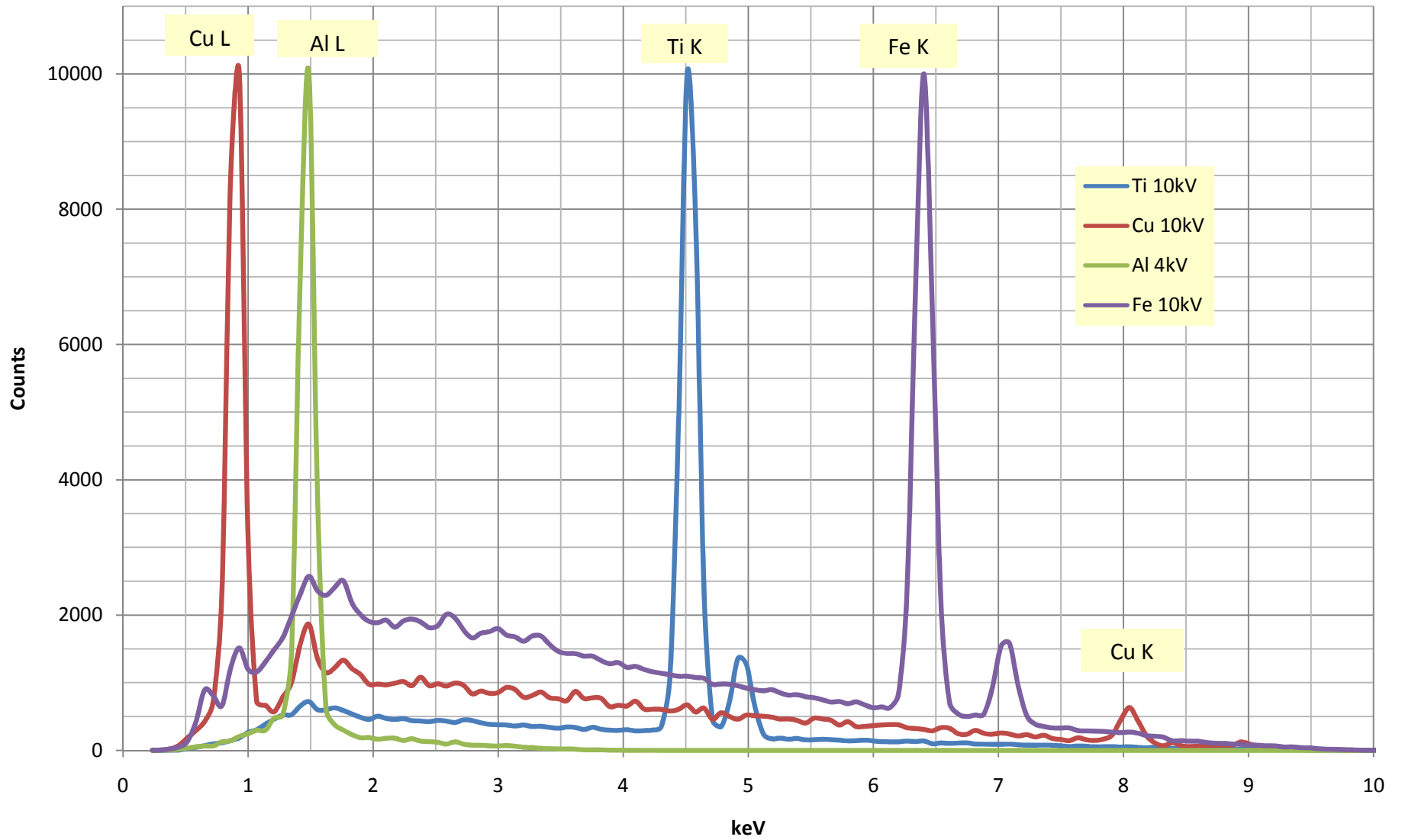


Model 05 multi-anode soft x-ray calibration light source shown with Amptek XR-100T-CdTe detector and PX4 detector interface.



### Selected Emission Lines from Multi Anode X-ray Source





**McPHERSON**