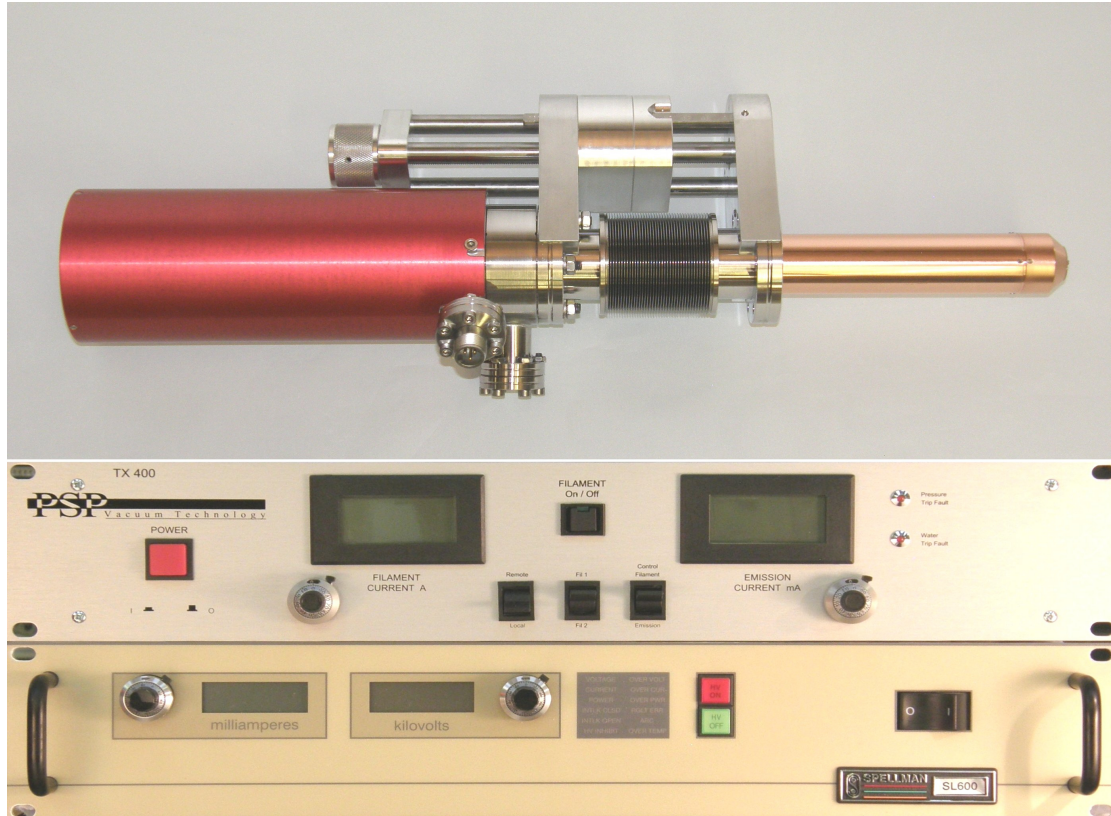


X-ray Source for XPS
New Model CTX400



- Twin Anode X-ray Source (updated compact version)
- Choice of Anode Materials
- May be differentially pumped or pumped directly through the mounting port
- 70mm O.D. CF mounting flange
- PZ100 Retractor option gives 100mm retraction from sample region
- Insertion length made to suit your chamber at no extra cost
- Long life Ytria coated Tungsten twin filaments
- Quick and reliable connections to filament, anode and water cooling
- Water, safety cover and pressure interlocks
- Aluminium foil window between source and sample
- Source end shaped to allow close approach to sample for optimum flux
- Rugged, high stability electronic control units.

Mechanical Details

The CTX400 X-ray source has twin anodes with independent filaments to provide two separate excitation energies for X-ray Photoelectron Spectroscopy. Usually supplied with Mg/Al anodes but other combinations are also available and it is easy to fit replacement anodes with different coatings.

The X-ray exit aperture has an Al foil window, which reduces Bremsstrahlung radiation, isolates the internal volume of the source for differential pumping and prevents contamination of the sample. The source insertion length is custom made to suit your vacuum chamber.

The anode is water cooled, water pipes and flow switch are provided for connection to the water supply. (Requirement: 3 l/min. @20C).

Connections to the filaments, anode and water-cooling are quick and reliable and are easily removed for bake-out of the source at up to 200C.

Differential Pumping

The source mounts on a standard 70mm OD CF port and may be pumped directly from the chamber without the need for re-entrant pumping bellows.

Differential pumping may also be fitted, in which case the standard pumping holes are sealed using the barrel sleeve supplied and the DN16CF pumping port on the side of the source is connected to a separate pump.

Retractor Options

A 100mm travel retractor may be fitted to allow close approach to the sample for maximum X-ray flux and withdrawal when not in use.

Electronic Control Units

The CTX400 Control Units supply the Anode HV and Filament current to operate the source. The High Voltage is continuously variable from 0-15kV by front panel mounted potentiometers. The filaments may be run in current or emission stabilised mode using front panel potentiometers. Remote control facilities are also provided.

The small size (total 4U, 177mm height by 483mm wide) and weight (approx. 12kg) takes up little surface or standard 19in. rack space.

Safety interlocks are fitted to turn the HV and filament off in the event of loss of water-cooling, safety cover removal or vacuum set point (when connected to a suitable vacuum gauge relay).

HV Specifications:

Voltage regulation better than 0.005% for +/- 10% input line variation. Ripple 0.1% of p-p maximum output. Stability 100ppm/hour after half hour warm up.

Accessories: (Optional Extras)

Cooling Water chiller / recirculator.

Differential pumping line bellows, valve, ion pump and controller.

Replacement Anodes, Al window and filament assemblies.

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