

TECHNICAL SPECIFICATION OF DELIVERY

VUV light source for SARPES

Device description: VUV light source for SARPES is upgrading facilities of SARPES laboratory with measurement of photo emission for other light sources. The light source must allow for use of He, Ar, Ne, Kr, Xe and H₂.

- a) Light source must be provided with a viewport, allowing adjustment of the light source by laser. Suitable laser does not have to be part of the supply.
- b) Supplied VUV light source must be provided with convenient electrical digital source including pressure measurement within the full scope of operating mode. Light source must have automated plasma ignition.
- c) Part of the supply is simple integrated plasma pressure control including user-easy settings of necessary parameters. The light source delivers up to 1 kV anode voltage and up to 300 mA discharge current for most frequently used gases as are He, Ar, Ne.
- d) VUV light source must be able to deliver more than 1×10^{16} photons/s.sr.
- e) VUV light source is water cooled.
- f) Part of the supply is a structural element allowing linear alignment in the z axis up to 100mm, connectable to DN40CF on SARPES device (Photoelectron emission spectrometer with spin and angle resolution). Structural distance between mounting flange DN40CF and measured sample on the SARPES device is 121mm. Working distance (distance between output capillary end and measured sample) must be optimally adjustable to 65mm value.
- g) VUV light source has a light capillary with inner diameter 0.8 mm.
- h) VUV light source must have integrated port aligner allowing for easier installation and adjustment range +/- 3°.
- i) VUV light source must be equipped with an option for connection (port) of 3-stage differential pump.
- j) The supply includes transport to the place of delivery, description of VUV light source installation and user manual for VUV light source in Czech or English language.
- k) UV light source must be provided with suitable leak valve and gas inlet.
- l) Guarantee period for all devices is at least 24 months.

