

SINGLE-POINT KELVIN PROBE SYSTEM

KP020

SYSTEM DESCRIPTION

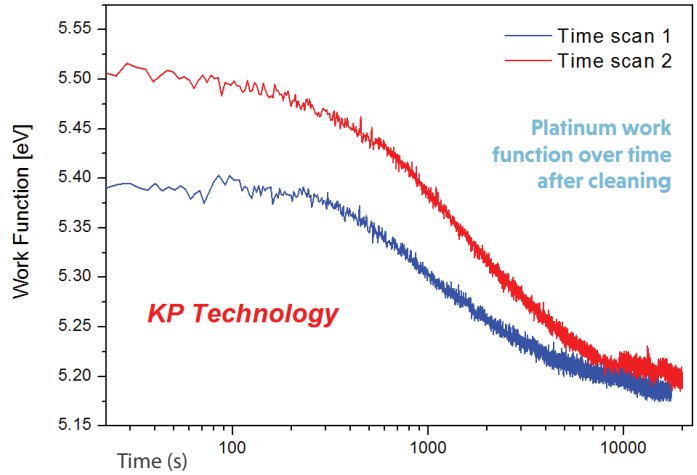
Our single-point Kelvin probe (KP020) system is the introductory system to the KP Technology Ltd range. The off-null signal detection method allows very high quality measurements of the work function (Φ) and Fermi level of materials.

The economical system enables users to quickly record single point data and the dedicated software allows full digital control of all parameters to match the exact requirements of the sample under investigation.

The recorded data is easily exportable to analysis software. For rapid events, the KP020 can record work function at a rate of over 300 work function measurements per minute, or alternatively, the system will track slow work function evolution over a number of days.

There is an in-built height regulation feature to control the tip to sample spacing during measurements which gives rise to stable, reliable and repeatable data.

Platinum (Pt) Work Function vs. Time after sample cleaning

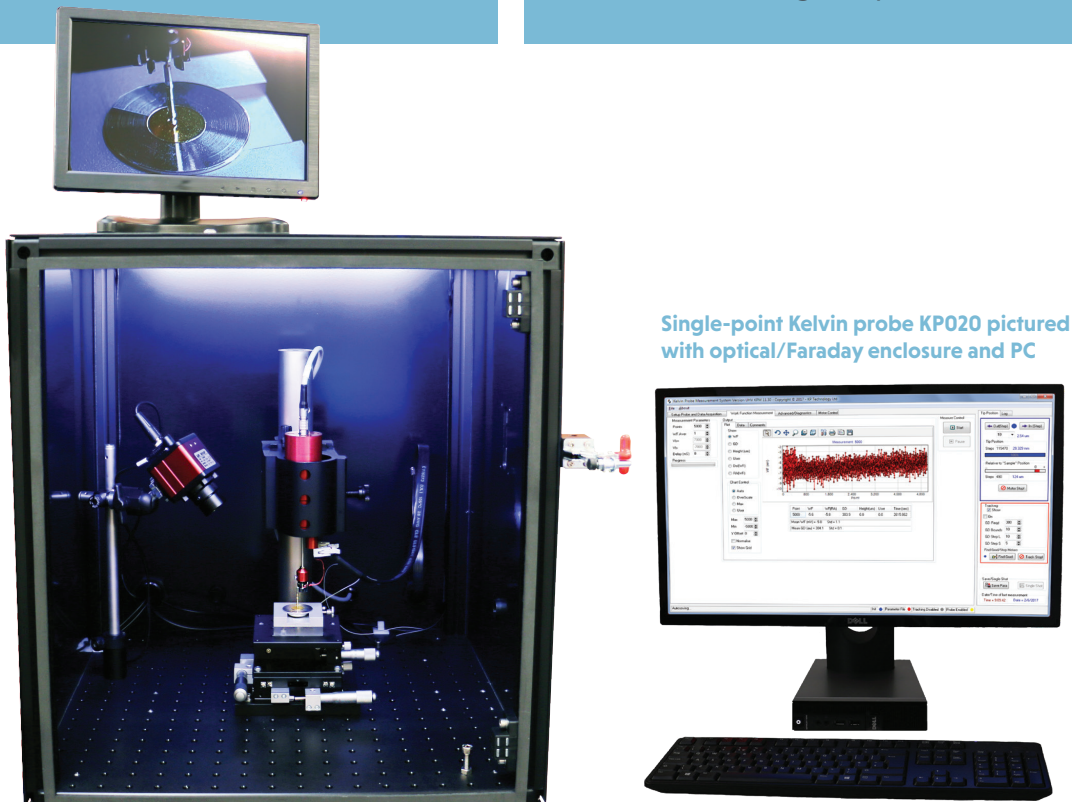


FEATURES

- Work function measurement
- Work function resolution of 1-3 meV
- Manual X, Y, Z translator
- Economical, entry system
- Off-null signal detection system

APPLICATIONS

- Organic and non-organic semiconductors
- Metals and metal alloys
- Thin films and surface oxides
- Nanotechnology
- Corrosion
- Solar cells and organic photovoltaics



Single-point Kelvin probe KP020 pictured with optical/Faraday enclosure and PC

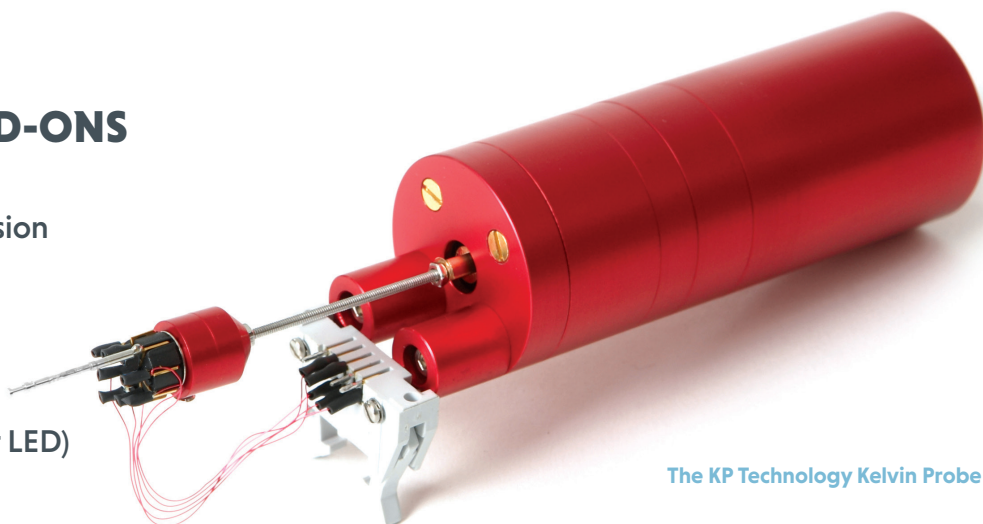
SINGLE-POINT KELVIN PROBE SYSTEM

KP020

SYSTEM SPECIFICATIONS	KP020
Tip material/diameter	Standard 2 mm Au plated tip
Work function resolution	1 - 3 meV
Probe translation	25 mm high resolution manual translator
Visualisation	Single-point work function/contact potential difference measurement
Oscilloscope	Digital TFT oscilloscope for real time signal
Test sample	Au / Al Reference sample
Control supplied	PC control with dedicated software for full digital control of all parameters
Height regulation	Through automatic DC probe adjustments
Detection system	Off-null with parasitic capacity rejection
Faraday/optical enclosure	LE450 (450 mm x 450 mm)
Optical system	Colour camera with zoom lens and monitor
Warranty	12 Months

UPGRADES AND ADD-ONS

- Scanning Kelvin Probe system
- Ambient-pressure Photoemission Spectroscopy
- Sample heater to 250°C
- Surface Photovoltage Spectroscopy (400-1000nm)
- Surface Photovoltage (QTH or LED)



The KP Technology Kelvin Probe

KP Technology has been serving the scientific community since 2000 and has grown to be the leading supplier of Kelvin Probe systems worldwide.

Founded with the aim of bringing new surface research tools to the market, we offer a spectrum of dedicated Kelvin Probe systems for work function and energy level measurement. Our systems have been specially developed for applications in a variety of environments, ranging from ambient and controlled atmosphere to Ultra-High Vacuum. Recent developments include a patented dual mode Kelvin Probe and Photoemission Spectroscopy system for measurement of the absolute work function of a material by photoemission in air.

The range of Kelvin Probe systems offered, and the accuracy of the work function resolution provided by our unique systems is unsurpassed by any other Kelvin Probe supplier.

A strong research and development team, coupled with decades of experience in materials research and characterisation has supported the rapid growth KP Technology has experienced over the years. We now service hundreds of companies and research institutes worldwide in their materials research and characterisation requirements.

KP Technology systems have been named in hundreds of research papers and continue to feature in peer reviewed client publications year after year.

KP TECHNOLOGY

Contact us for more information, to request a quotation or to discuss how our systems can support your research.

E: sales@kelvinprobe.com

T: +44 1955 602 777

Or visit our website:

www.kelvinprobe.com

KP Technology Ltd. is the proud winner of the Queens Award for Enterprise: Innovation 2018

