



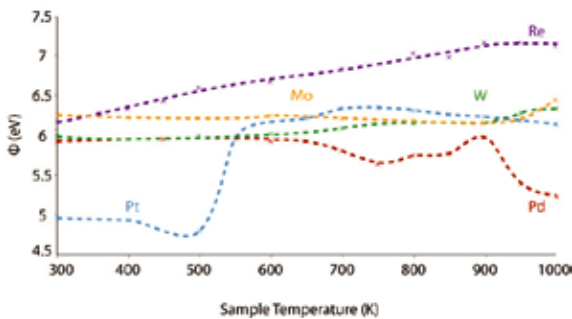
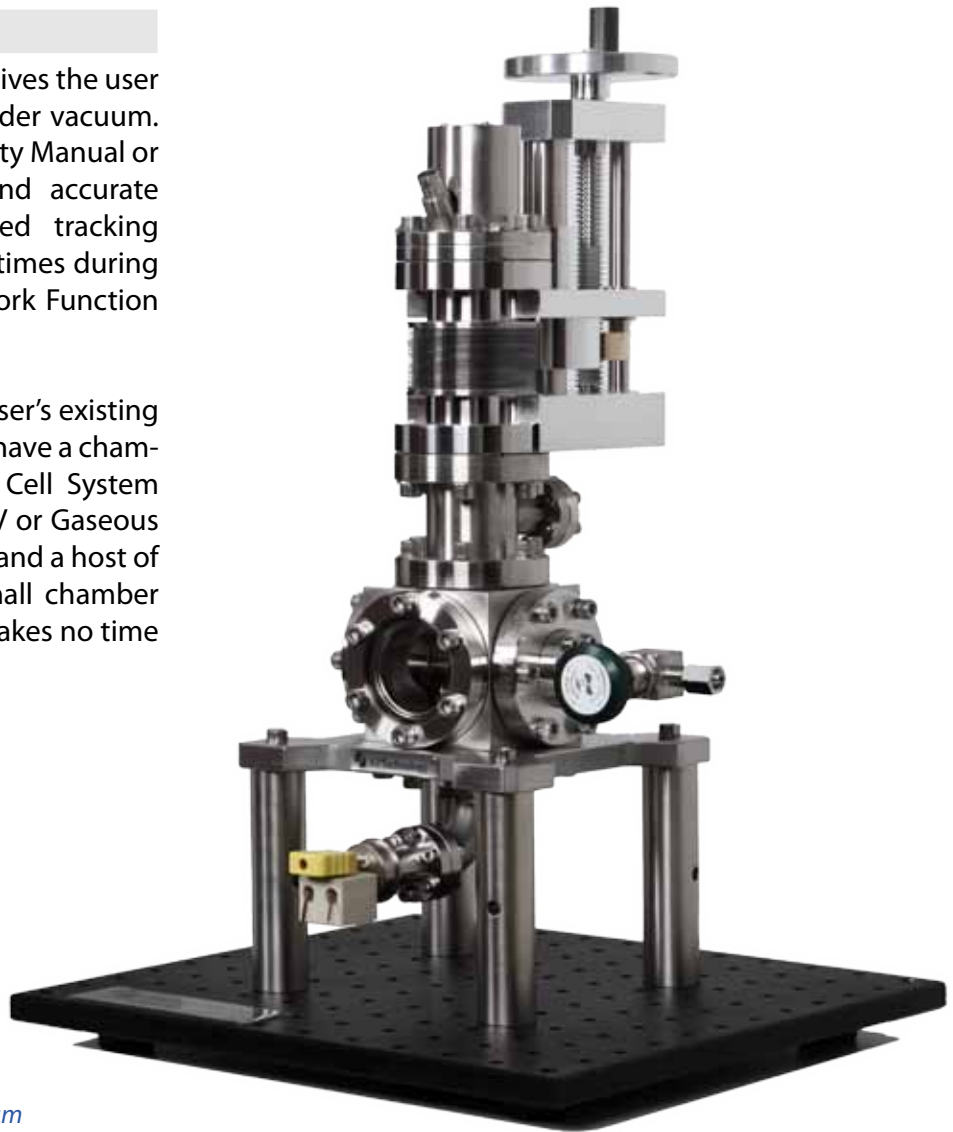
UHV Kelvin Probe Systems

UHVKP020, UHVKP030

System Description

Our range of Ultra High Vacuum Kelvin Probes gives the user full access to Work Function measurements under vacuum. Each UHV Kelvin Probe comes with a High Quality Manual or Motorised Translator that enables reliable and accurate tip-to-sample positioning, and the unrivalled tracking system holds the tip separation constant at all times during the measurement. Even under vacuum, the Work Function resolution is less than 3meV.

The UHV Kelvin Probe can be mounted to the user's existing UHV Chamber with no fuss. If the user does not have a chamber, KP Technology offers an elegant UHVKP Cell System (UHVKP030) that can be used for Ambient, UHV or Gaseous measurements. This Cell is completely modular and a host of additional extras can be added-on. With a small chamber size, pumping-down the Cell, or injecting Gas, takes no time at all, resulting in fast, reliable measurements.



Work Function of Metals versus Temperature under Vacuum

Ultra High Vacuum Kelvin Probe, UHVKP030, mounted on breadboard. UHV Cell with Heater Stage, Gas Inlet and UHV Kelvin Probe mounted vertically.

Features

- Work Function Measurement by Kelvin Probe
- Work Function Resolution of <3meV
- UHV, Gas or Ambient Measuring
- Modular System for Upgrades and Add-Ons
- Automatic Height Regulation

Applications

- Organic and Non-Organic Semiconductors
- Metals
- Thin Films
- Solar Cells and Organic Photovoltaics
- Corrosion



UHV Kelvin Probe Systems

UHVKP020, UHVKP030

| System Specifications | UHVKP020 | UHVKP030 |
|---------------------------|---|------------------------------------|
| Tip Material / Diameter | 4mm Stainless Steel Tip | |
| Work Function Resolution | <3meV | |
| Standard Translator | 50mm Manual Translator | |
| Translator Sizes Possible | 50mm or 100mm Manual or Motorised Translators | |
| Height Control (Auto) | Approximately 1-5mm by DC Offset (unless Motorised) | |
| Visualisation | Single-Point Work Function / Contact Potential Difference Scans | |
| Oscilloscope | Digital TFT Oscilloscope for Real Time Signal | |
| Test Sample | Available on Request | |
| Control Supplied | USB Control with Dedicated Software | PC Control with Dedicated Software |
| Detection System | Off-Null with Parasitic Capacity Rejection | |
| UHV Cell | Not Included | 2.75" 6 Port Cell |
| Warranty | 12 Months | |

Upgrades and Add-Ons

- Photoemission System
- Surface Photovoltage (QTH or LED)
- Surface Photovoltage Spectroscopy (400-1000nm)
- Motorised or Manual Translators (50mm to 200mm)
- Heater Stage and/or Sample Translation
- Tips in Gold or S.Steel from 0.05mm to 20mm



*UHVKP020 Kelvin Probe with Manual Translator
Photographed on desk before mounting on to User's Chamber*

The Company

KP Technology was founded with the aim of bringing to the market new surface research tools. These tools would firstly allow specialists to investigate surface phenomena, secondly provide equipment pathways for non-specialists, and finally educate scientists, engineers and technologists in the capabilities of these emerging technologies.

KP Technology also performs a significant amount of material research and training consultancy, mostly based upon the Work Function or Surface Potential evaluation of client samples. Along with a strong Research and Development Division and over 300 systems shipped worldwide, this has placed KP Technology as the Number one supplier of Kelvin Probes in the world.

Contact

For quotation requests, further information or to discuss any research or particular measurements, please feel free to contact us:

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Or visit our websites
www.kelvinprobe.com
www.airphotoemission.com

KP Technology was the proud winner of the
Queens Award for Enterprise:
International Trade 2013

