System Description

Our large range of Scanning Kelvin Probes gives the user full access to 2D and 3D Work Function plots of samples ranging in size from 5mm to 300mm. With Work Function resolution at less than 3meV, and the resolution of the 3-axis scanning stages as low as 317.5nm, the Scanning Kelvin Probe gives reliable, repeatable measurements.

A high performance Faraday and optical enclosure shields all of our scanning systems from unwanted fast changing environmental conditions, electromagnetic interference and providing the perfect platform for our Photoemission and Surface Photovoltage add-on modules.

Features

- Work Function Measurement by Kelvin Probe
- Work Function Resolution of <3meV
- Scanning Area from 5mm to 300mm
- Scanning Resolution from 317.5nm
- Automatic Height Regulation

Applications

- Organic and Non-Organic Semiconductors
- Metals
- Thin Films
- Solar Cells and Organic Photovoltaics
- Corrosion
Scanning Kelvin Probe Systems
SKP5050, ASKP100100, ASKP200250, ASKP350350

System Specifications

<table>
<thead>
<tr>
<th>Tip Material / Diameter</th>
<th>SKP5050</th>
<th>ASKP100100</th>
<th>ASKP200250</th>
<th>ASKP350350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Function Resolution</td>
<td>&lt;3meV</td>
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<tr>
<td>Sample Scan Size</td>
<td>50mm x 50mm</td>
<td>100mm x 100mm</td>
<td>200mm x 250mm</td>
<td>300mm x 300mm</td>
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<tr>
<td>3D Sample Area</td>
<td>Square</td>
<td>Square</td>
<td>Square</td>
<td>Square &amp; Circular</td>
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<tr>
<td>Height Control (Auto)</td>
<td>25mm</td>
<td>50mm</td>
<td>50mm</td>
<td>50mm</td>
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<tr>
<td>Visualisation</td>
<td>3D Maps of Surface Potential</td>
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<tr>
<td>Optical System</td>
<td>Colour Camera with Zoom Lens and Monitor</td>
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<tr>
<td>Oscilloscope</td>
<td>Digital TFT Oscilloscope for Real Time Signal</td>
<td></td>
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<tr>
<td>Test Sample</td>
<td>Gold and Aluminium Test Sample</td>
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<tr>
<td>Faraday Enclosure Base (mm)</td>
<td>450 x 450</td>
<td>300 x 300</td>
<td>450 x 450</td>
<td>450 x 600</td>
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<tr>
<td>Control Supplied</td>
<td>PC Control with Dedicated Software</td>
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<td>Detection System</td>
<td>Off-Null with Parasitic Capacity Rejection</td>
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<td>Warranty</td>
<td>12 Months</td>
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Upgrades and Add-Ons

- Air Photoemission System
- Surface Photovoltage (QTH or LED)
- Surface Photovoltage Spectroscopy (400-1000nm)
- Tips in Gold or S.Steel from 0.05mm to 20mm
- Relative Humidity Control and Nitrogen Environmental 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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Tel: +44 1955 602 777

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

12" Silicon Wafer Measured Using the ASKP350350 Scanning Kelvin Probe