



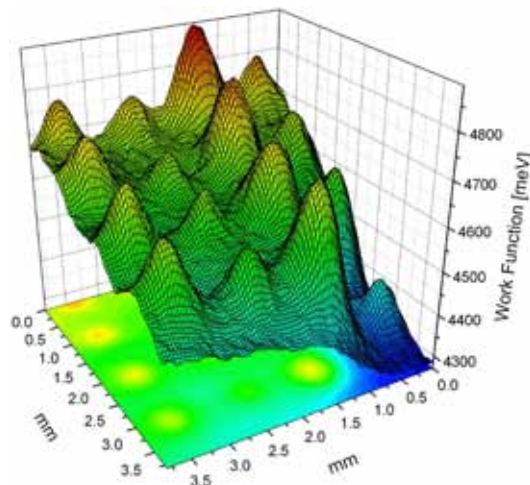
Scanning Kelvin Probe Systems

SKP5050, ASKP100100, ASKP200250, ASKP350350

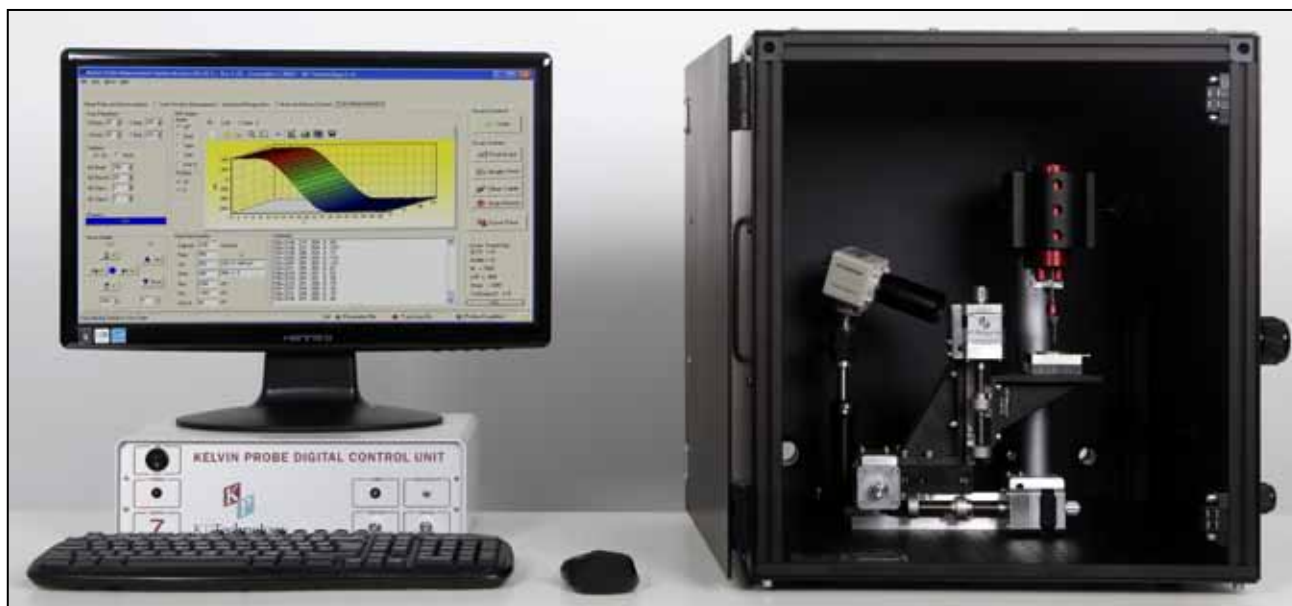
System Description

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.



*Silicon substrate modified by a layer of small 'Bumps'.
Sample is scanned using SKP5050 advanced 2D and 3D techniques*



Scanning Kelvin Probe SKP5050 Pictured Inside Standard Optical Enclosure

Features

- Work Function Measurement by Kelvin Probe
- Work Function Resolution of <math><3\text{meV}</math>
- 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



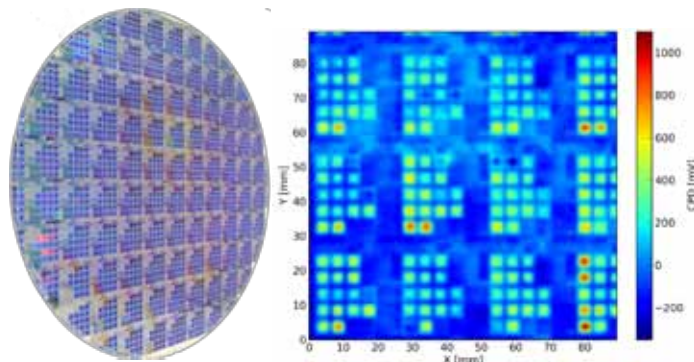
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System Specifications	SKP5050	ASKP100100	ASKP200250	ASKP350350
Tip Material / Diameter	2mm Gold Tip			
Work Function Resolution	<3meV			
Sample Scan Size	50mm x 50mm	100mm x 100mm	200mm x 250mm	300mm x 300mm
3D Sample Area	Square	Square	Square	Square & Circular
Height Control (Auto)	25mm	50mm	50mm	50mm
Visualisation	3D Maps of Surface Potential			
Optical System	Colour Camera with Zoom Lens and Monitor			
Oscilloscope	Digital TFT Oscilloscope for Real Time Signal			
Test Sample	Gold and Aluminium Test Sample			
Faraday Enclosure Base (mm)	450 x 450	300 x 300	450 x 450	450 x 600
Control Supplied	PC Control with Dedicated Software			
Detection System	Off-Null with Parasitic Capacity Rejection			
Warranty	12 Months			

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



12" Silicon Wafer Measured Using the ASKP350350 Scanning Kelvin Probe

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

