

The surface photovoltage spectroscopy modules are the perfect all-in-one solution for in-depth studies of light sensitive materials such as organic semiconductors, solar cells or light sensitive dyes.

The modules offer a comprehensive range of measurement modes including DC and AC surface photovoltage studies utilising the built-in optical chopper.

Total digital control of all parameters including light intensity and wavelength (400-700 nm or 400-1000 nm) gives the opportunity to investigate and characterise the surface photovoltage and surface photovoltage spectroscopy properties of samples.



SPS response of mc-Si, Si₃N₄ and CdTe samples



Surface Photovoltage Spectroscopy SPS030 pictured with silicon solar cell sample

Features

- SPS030 400 to 700 nm range
- SPS040 400 to 1000 nm range
- Intense white light QTH source
- DC and AC measurement modes
- Compatible with all Kelvin probe systems

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

System Description

The SPV020 module is the ideal upgrade to any of our Kelvin probe systems, for investigating light sensitive materials such as solar cells, light sensitive dyes and semiconductors.

Vary the light intensity of the 150 W DC regulated Quartz Tungsten Halogen (QTH) bulb to achieve open circuit potential or investigate the quality of your latest roll-to-roll silicon solar cells.

SPV020 is an extremely intense Quartz Tungsten Halogen light source that has a variable light intensity from software control.



FSE and BSE coated, defective, measured with SPV020 QTH light pulse



Quartz Tungsten Halogen SPV020 source and SPV010 LED source with electronics control box

Features

- SPV020 QTH variable light source
- Intense light sources
- Automatic software control
- Variable intensity SPV measurement
- Compatible with all Kelvin probe systems

Applications

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