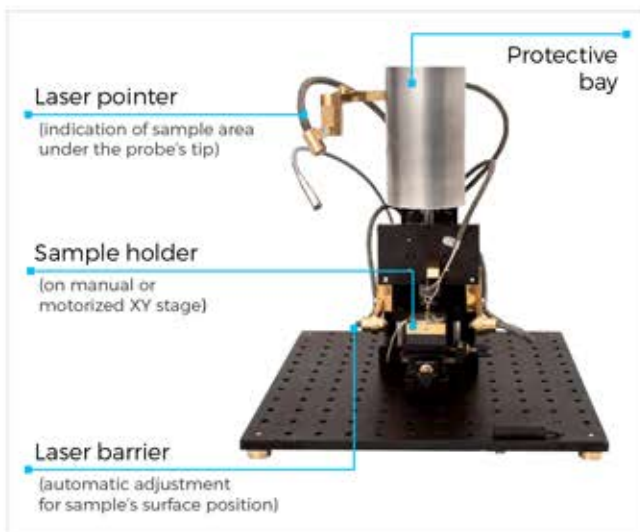


Kelvin probe

for SPV and SPS measurements



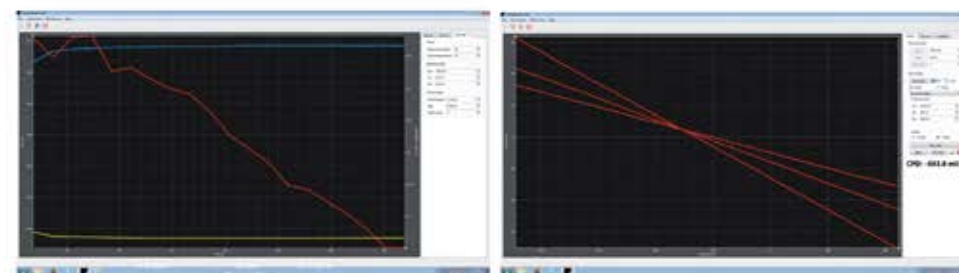
Kelvin probe for characterization of the semiconducting and conducting samples

- **New Kelvin probe paradigm**
- Measurements in ambient air conditions (temperature and humidity monitoring)
- Measurements with high precision and accuracy
- High signal stability
- Remote service diagnostic implemented

Applications:

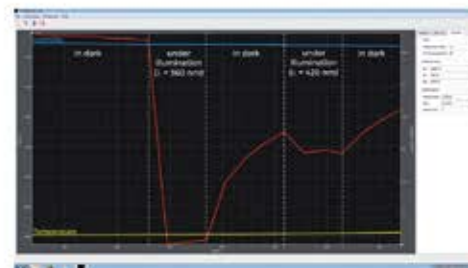
- SPV measurements (work function relative to work function of gold reference)
- **Surface Photovoltage Spectroscopy (SPS)**. The instrument is compatible with xenon lamp and monochromator setup or with LED revolver
- Corrosion measurements
- Adsorption/desorption and surface charging studies
- Catalytic activity studies

PHOTOELECTRIC GUI SOFTWARE



- Corrosion of anatase in dark

- Determination of CPD value:
• Current values at various potentials and distances between the sample and gold mesh
• Noticeable parasitic current of 5 pA



- Corrosion of anatase in dark and under illumination

Courtesy of Prof. Radecka group, AGH, Cracow, Poland

Kelvin probe specifications

Voltage range	from -5 V to 5 V
Data acquisition	16-bit ADC module
Resolution of the measurement	0.1 meV
Sample holder	X-Y stage
Z-stage	5 μ m resolution laser positioning
Gold tip	(Φ 2 mm mesh) – light „see through“