

# Paios

Electro-Optical Characterization of LEDs & Solar Cells




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All-In-One  
—

—  
DC, AC &  
Transient  
Analysis  
—

—  
Over 15  
Different  
Experiments  
—

—  
Fully Automated  
Routines  
—

[www.fluxim.com](http://www.fluxim.com)

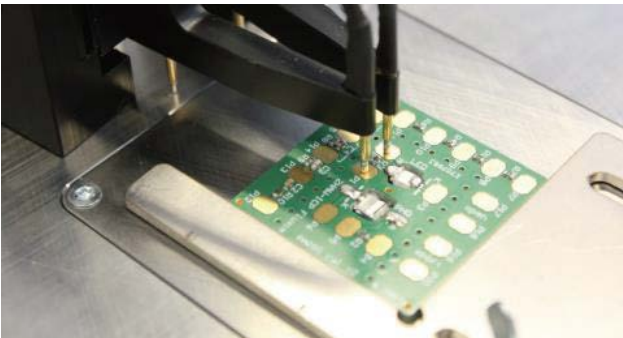
 swiss made software

 **FLUXIM**

# Verify Your Hypothesis Quickly With Paios

Paios performs a large variety of electrical and optical characterizations on [organic](#), [perovskite](#), and [quantum-dot LEDs](#) and [solar cells](#) with one click. Get consistent and precise measurement data, directly compare your results in the measurement software and speed up your R&D.

- Current-Voltage-Luminance
- Transient Photocurrent
- Transient Photovoltage
- Transient Electroluminescence
- Charge Extraction
- Dark Injection Transients
- Dark/Photo-CELIV
- DLTS
- Impedance Spectroscopy
- Capacitance-Voltage
- IMPS/IMVS
- MELS
- Emission Spectrum
- User-Defined Signals



## AC, DC & Transient

The combination of opto-electrical measurements in steady-state, frequency and time domain provides deeper insight into the device physics.

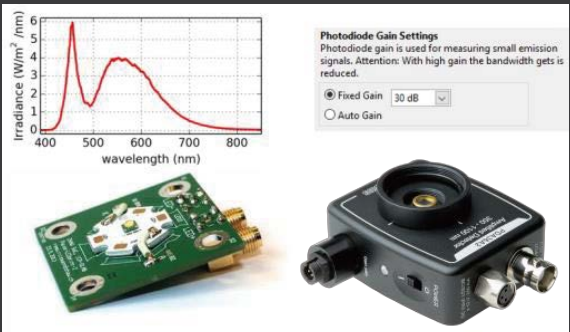
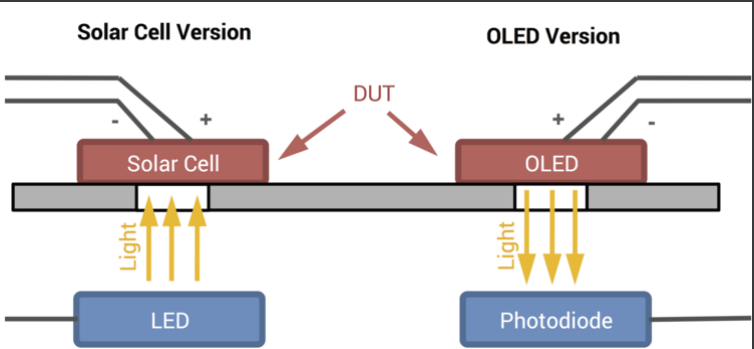
### Paios Research Fields

- Perovskite solar cells
- Organic, quantum dot & hybrid solar cells
- CIGS, CdTe , CZTS solar cells
- Dye sensitized solar cells
- Solid-state thin-film batteries

- Organic light-emitting diodes (OLEDs)
- Perovskite-LEDs and QD-LEDs
- Light emitting electrochemical cells (LECs)
- Unipolar devices
- Metal Insulator Semiconductor (MIS) devices

# LED & PV Characterization

Paios is available in a solar cell and an LED version. The versatile Combined Version is suitable for research and development on both LEDs and photovoltaic devices.



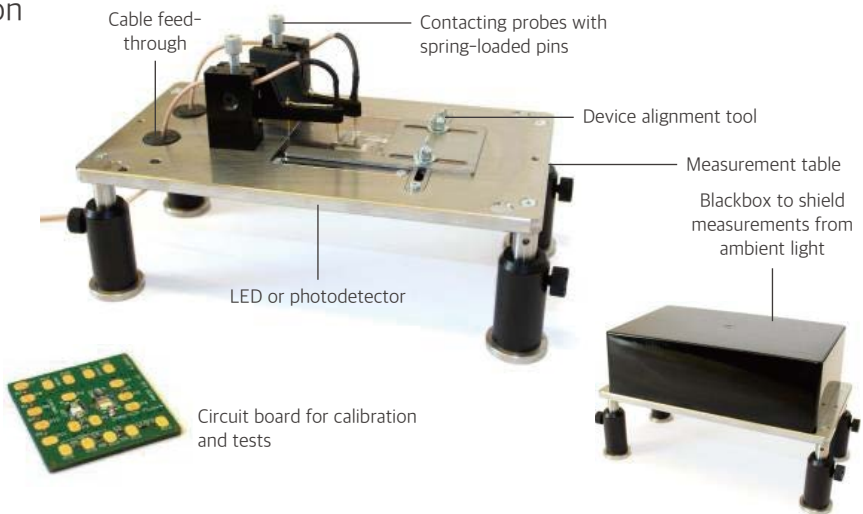
**SOLAR CELLS** : the main hardware is equipped with a suitable LED illumination system. A multi-LED board can be employed for External Quantum Efficiency (EQE) measurements.

**LEDs** : an amplified photodetector with autogain is included in the version for LED research.



## Flexible Probe Station

Paios is delivered with a probe station to provide a fully calibrated system down to the contacting pins. Our contacting probes are designed to create a low parasitic resistance and reproducible contact to your device. The magnetic feet are adjustable to accommodate different sample layouts.



- The device can be easily aligned using our alignment-tool.
- The measurement table comes with a black cover to ensure the reproducibility of dark measurements.

# Custom-Made Sample Holders

Sampling-rate	60 MS/s
Time resolution	16 ns
Voltage range	± 12 V
Extended voltage range (SMU module, up to 1 kHz)	± 60 V
Frequency range impedance spectroscopy	10 mHz to 10 MHz
Minimal resolvable current	< 100 pA
Maximum current	100 mA
Measurement resolution	12 Bit
Spectral resolution (Spectrometer module)	2.5 nm
LED rise/fall time (PV version)	100 ns
Illumination area (PV version)	1.7cm <sup>2</sup>
Computer Connection	PXI and USB
Dimensions / Weight	40 x 30 x 20cm <sup>3</sup> / 18kg

## Paios Optional Modules

- Liquid Nitrogen Cryostat
- Peltier Cryostat
- Spectrometer Module
- Automated Measurement Table
- Multiplexing Module
- Glovebox
- Feed-Through
- Source Measure Unit (SMU)

## Paios Technical Support

Full technical support is included with every purchase of Paios. Our team of R&D Scientists will also be happy to discuss how we can help.

Contact us today to discuss how Paios can advance your R&D.

[hardware@fluxim.com](mailto:hardware@fluxim.com)



## Trusted by Academics & Industry



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