

# Transient Measurement Unit (TMU)

IV, TPV, TPC, CE, (Photo-)CELIV

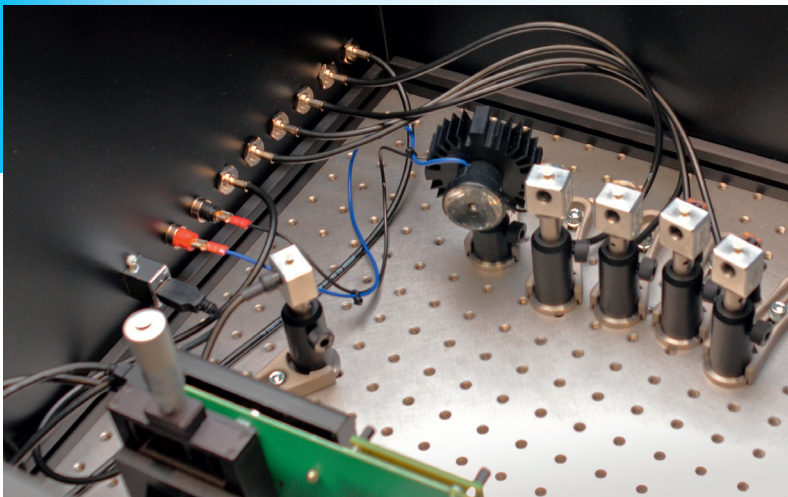
## Applications

Semiconductor characterization

Measurement of every relevant solar cell parameter

Know your device limitations – improve your devices

Study aging behavior



## Functions

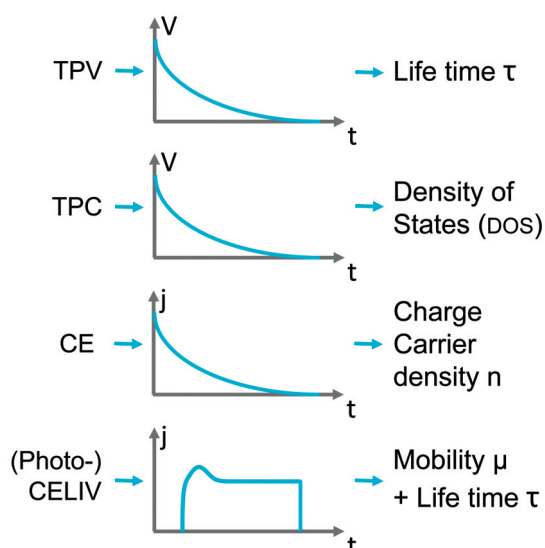
IV – Steady state Current-Voltage characteristics

TPV / TPC – Transient Photo Voltage / Current

CE – Charge Extraction

(Photo-)CELIV – Charge Extraction by Linearly Increasing Voltage

Enables the customer to determine values for charge carrier lifetime, density and mobility of thin film devices





Optical box  
for glovebox  
integration

## Key features

Laser beam excitation

Modular setup using  
high quality instruments

Customized sample holders  
with multiplexing option

Software controlled switching  
between measurement modes

Glovebox integration possible

Parameter extraction software  
modules

Selectable laser (405nm, 520nm,  
635nm, 785nm) up to 100 mW

Power-LED backlight  
(up to 1500 W/m<sup>2</sup>)

Customized sample holders

Small dimensions

## Options and Accessoires

Art.No.	Description
<b>TMU</b>	Transient Measurement Unit
<b>OB</b>	Optical box size 600 x 450 x 300 mm <sup>3</sup> for high flexibility
<b>SOB</b>	Small optical box 250 x 250 x 500 mm <sup>3</sup> for glovebox integration
<b>X-Lyyy- zz mW</b>	Laser diode No. X with wavelength yyy nm and zz mW maximum power (Laser No. 1 is the main laser, up to 3 lasers possible)
<b>MP</b>	Multiplexer for automatic measurements of substrates with more than 1 contact, 8 channels standard
<b>EC</b>	Environmental chamber to keep the sample in nitrogen atmosphere during measurement. Maximum sample size 7.5 x 7.5 cm <sup>2</sup> .
<b>ECQG</b>	Environmental chamber with quartz glass window