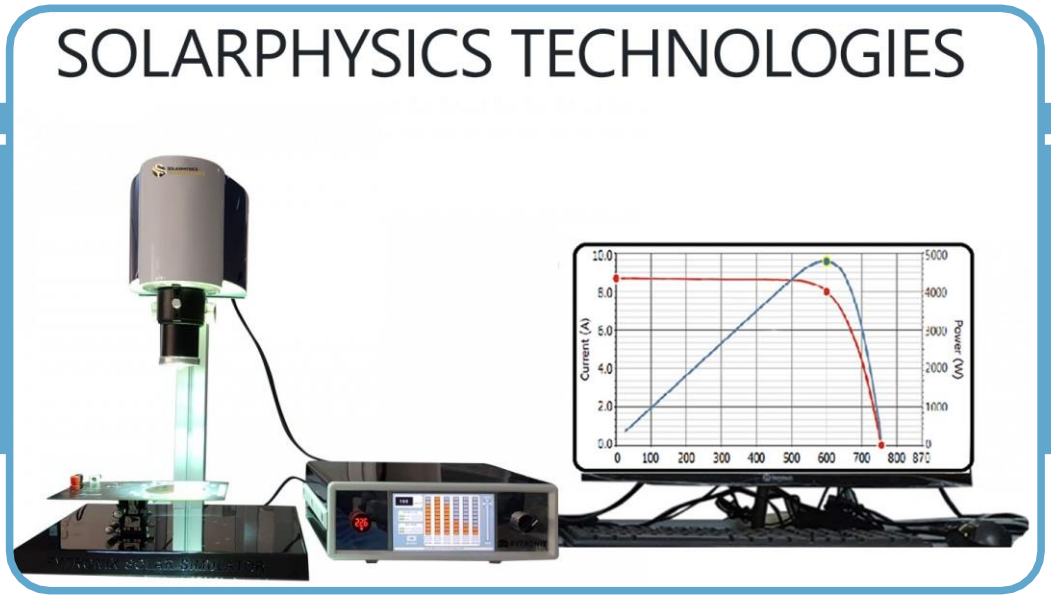
SS AAA SOLAR SIMULATOR



SM-X7

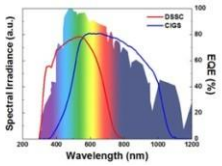
Solar simulator for current-voltage (I-V) characteristic measurements
Solar simulator for power-voltage (P-V) of solar cells measurements

SOLARPHYSTECH solar simulator is manufactured in accordance with IEC 60904-9 2007, JIS C 891 standards.
SS-X5 solar simulator is automatically measured I-V and P-V, I-t and V-t measurements by changing solar irradiance from 1 mW/cm2 to 100 mW/cm2 by any step.
SS-X5 solar simulator automatically analyze photovoltaic mechanism of solar cell
SS-P5 solar simulator can measure the current values from 100 nA to 150mA with a source meter.

SPECIFICATIONS

	AAA CLASS SOLAR SIMULATOR
Automatically intensity light Control	0.1 to 1000 W/m^2 (0.1 to 1.0 sun or more) by a certain step
Power Requirements	100-240 VAC, 50-60 Hz, 300W
Operating Temp Range	20^{o}C to 30^{o}C
Humidity	<85%, relative, non-condensing
Certificate	ISO 9001 :2015, CE CERTIFICATE
Illumination Area	2”X2” (51mmX51mm)
Total Power Output	(1.0 sun)
Uniformity Classification	A - IEC 60904-9 2007, JIS C 8912,
Temporal Stability	

Spectral Match	ASTM E 927-05
Operating Temp Range	20^{o}C to 30^{o}C



SOFTWARE

Software measure all photovoltaic parameters of solar cells by computer. the system determine all photovoltaic parameters. software of solar simulator system determine the following photovoltaic parameters such as solar simulator automatically determine the photovoltaic parameters as follows

Open circuit voltage (voc)

Short circuit current (isc)

Fill factor (ff)

Voltage at pmax (vmax)

Current at pmax (imax)

Maximum power output (pmax)

Shunt resistance (rsh) •

Series resistance (rs) •

Characteristic resistance of solar cell (rch) •

Photoreponse (rr)

Solar cell efficiency (n)

also ,system analyze the automatically the photovoltaic mechanism analysis.

Certificate Compliance

07.082.021

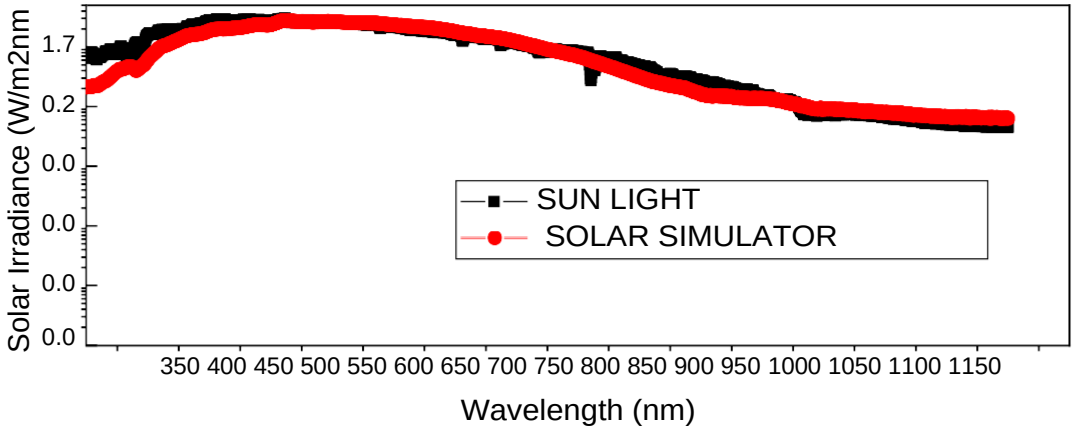
Product: Solar Simulator Model: MARK 9000 SN:

112 Applicable Standards: ASTM E 72-10, EIC 60904-9, JIS C 8912

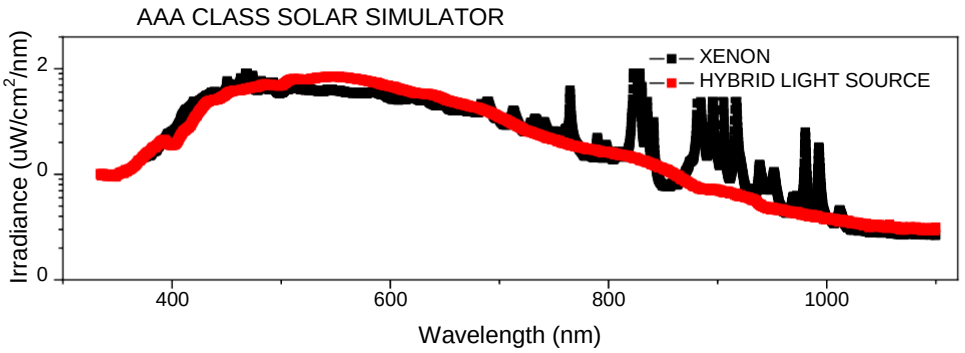
Spectral Fit

Spectral Match Compared to AM 1.5G

Band/Band	**Class A limits**	**Error**	**Status**
400-500nm	%25	-4.30%	Pass
500-600nm	%25	2.20%	Pass
600-700nm	%25	1.02%	Pass
700-800nm	%25	-2.50%	Pass
800-900nm	%25	-1.80%	Pass
900-1100nm	%25	3.40%	Pass

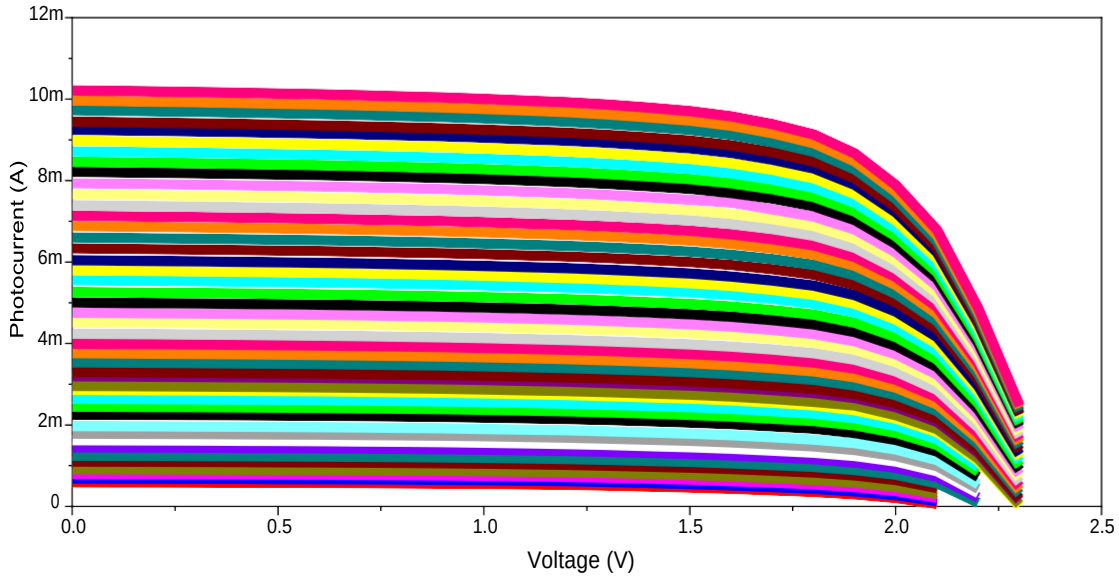


SPECTRAL MATCHING OF SOLAR SIMULATOR



HYBRID LAMP SOURCE VS XENON

SOLARPHYS light source do not have any spark and it is better than Xenon lamp

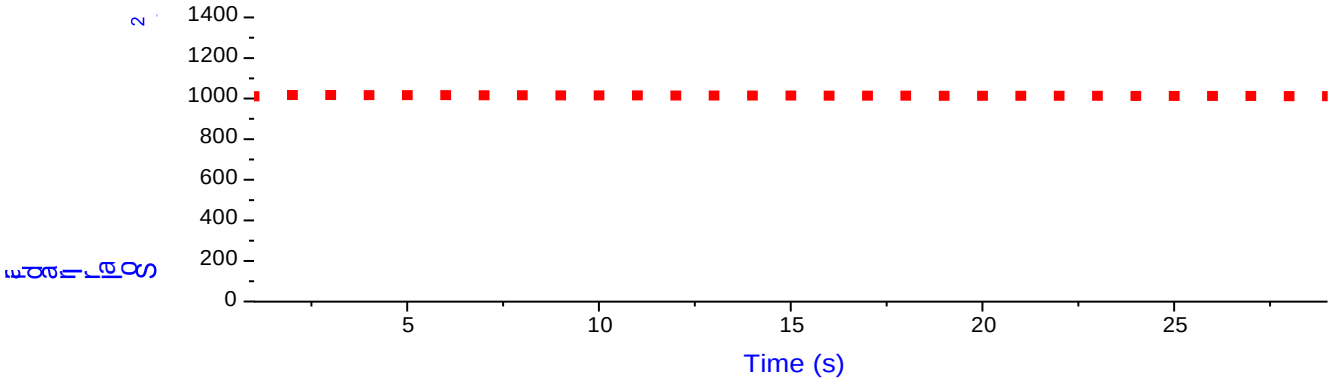


Current-voltage characteristics of solar cell under various solar irradiances

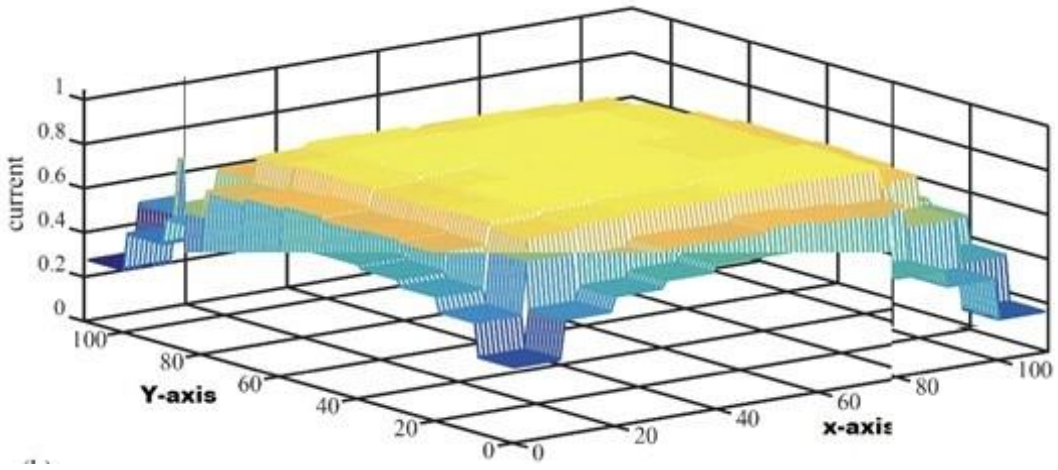
1. Solar simulator automatically measure current –voltage (I-V) and power-voltage (P-V) chracteristics of solar cell from 10 W/m2 to 1000 W/m2 with any step of intensity in W/m2

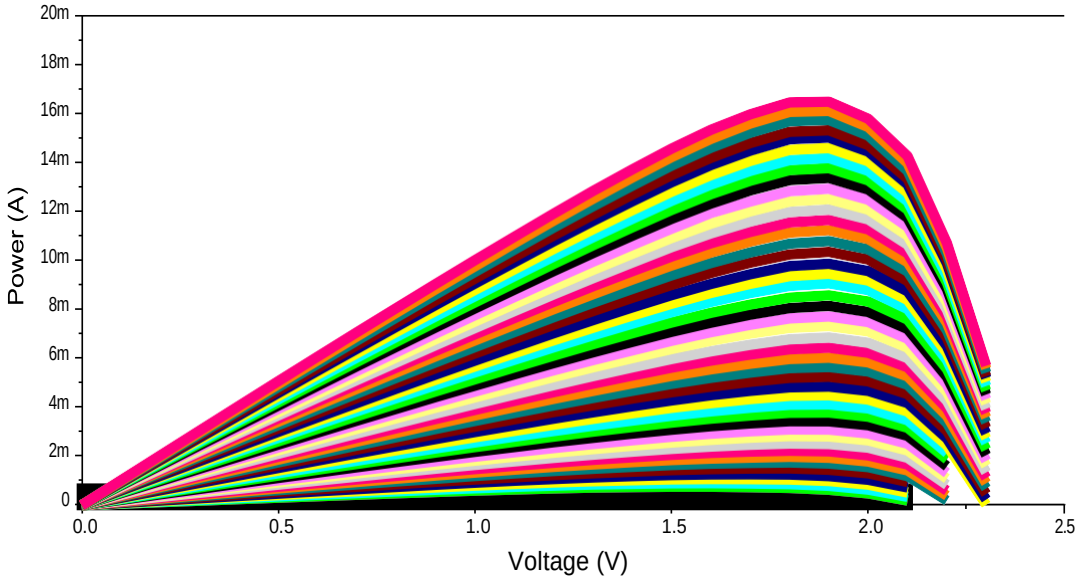
   JUST YOU CLICK START BUTTON on software

TEMPORAL INSTABILITY



NON-UNIFORMITY OF IRRADIANCE





Power-voltage characteristics of solar cell under various solar irradiances

AAA CLASS SOLAR SIMULATOR

WHEN YOU CLICK START BUTTON solar simulator automatically I-V and P-V as below

-a-

LSS SOLAR IV CHARACTERIZATION SYSTEM includes

SOLAR SIMULATOR

I-V CHARACTERIZATION SYSTEM, SOURCEMETER

SAMPLE HOLDER

CONNECTIONS

SOFTWAREs

Solar IV characterization Software

Solar Life-Time Software

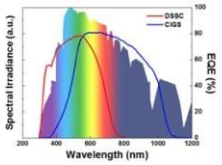
Transient photocurrent software

Photovoltaic mechanism analysis software

Solar Cell I-V Characterization System

This system analyze all photovoltaic and photoconducting characteristics of all solar cells such Dye sensitized solar cells, Quantum dots solar cells, Organic solar Cells, Perovskite Solar Cells, Solar Silicon Solar cells, Thin films solar Cells under various solar light intensities from 10 W/cm^2 to 1000 W/m^2.

This system is a complete current-voltage (I-V), current-time (I-t) and power-voltage (P-V) measurement environment.



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