

ModuLight

Programmable lightsource



- Photo-electrical devices
- Solar cells
- Absorption
- Biotechnology

Intensity modulation: 10 μ Hz – 2 MHz
Dynamic luminous flux: 0 – 57 lm

The Modulight can be controlled by all Ivium potentiostats!

- To be used as add-on module for Ivium potentiostats
- Especially designed for Solar-cell research
- Intensity modulation: 10 μ Hz – 2 MHz
- Dynamic luminous flux: 0 – 57 lm
- Radiant flux: 0 – 278 mW

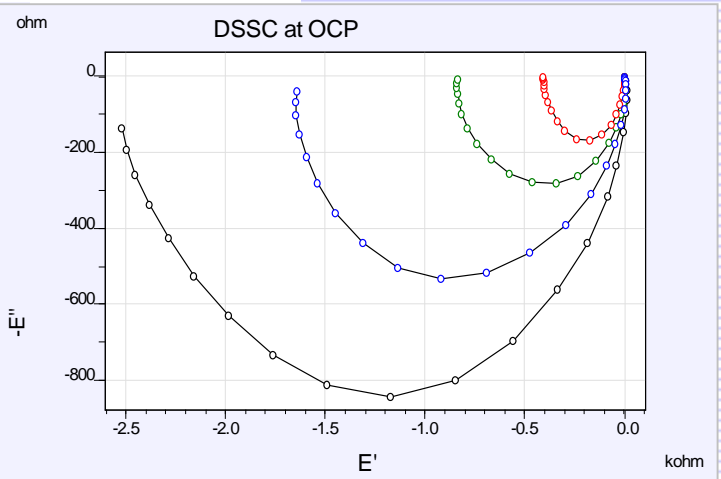
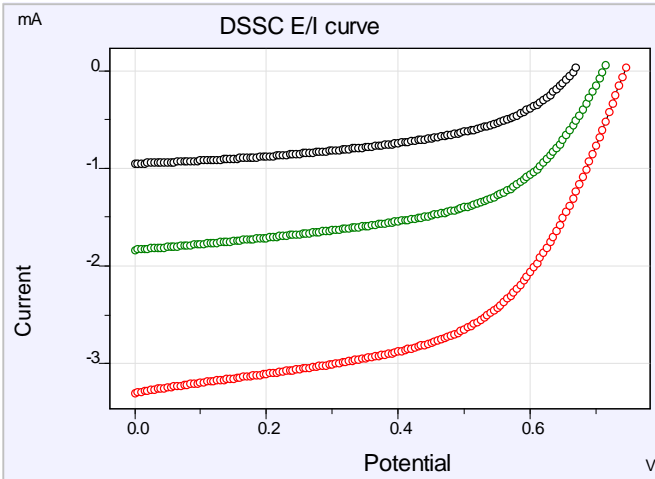
Led Specifications @ 100% Nominal Current

Mode	Color	Wavelength	Luminous Flux	Radiant Flux
1	White	425-660 nm	57 lm	N.A.
2	Royal Blue	465 nm	10 lm	255 mW
3	Blue	475 nm	19 lm	278 mW
4	Cyan	510 nm	45 lm	78 mW
5	Green	535 nm	52 lm	91 mW
6	Amber	595 nm	42 lm	82 mW
7	Red	635 nm	40 lm	260 mW

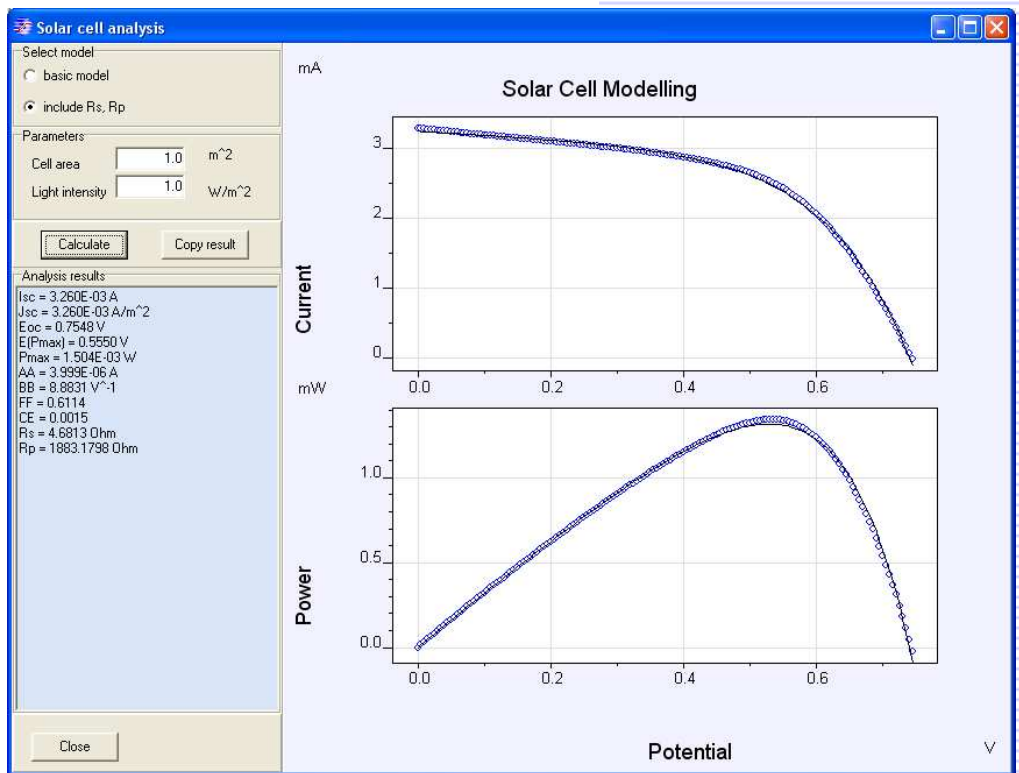
Solar cell testing: DSSC

E/I curves at various light intensities:
 o 15 lm, o 30 lm, o 60 lm

IMVS photo-electric-impedance at OCP, at various light intensities:
 o 15 lm, o 18 lm, o 23 lm, o 30 lm



Screenshot of the solar cell modelling circuit, using the 60 lm intensity curve:



Specifications:

Light intensity	Can be modulated with the FRA-output of the build-in sinewave generator of the Ivium potentiostat from: 10 μ to 2 MHz
Bias resolution	16 bit, 0.0015%
Wavelength	Programmable in seven steps: 465-635 nm
Bandwidth	0 => 2 MHz
Dynamic flux	0 - 57 lm
Luminous flux	0 - 278 mW
Power requirements	external adapter: 100-240 V, 45-65 Hz at DC connector: 5 V, 1A
Size	w x d x h = 12 x 13 x 2.5 cm
Weight	0.5 kg
Interfacing/connectivity	HD37, connects to the potentiostat peripheral port
Use	Only i.c.w. Ivium potentiostats

