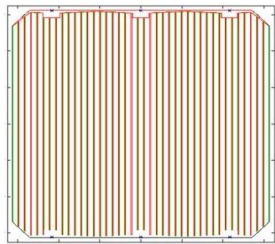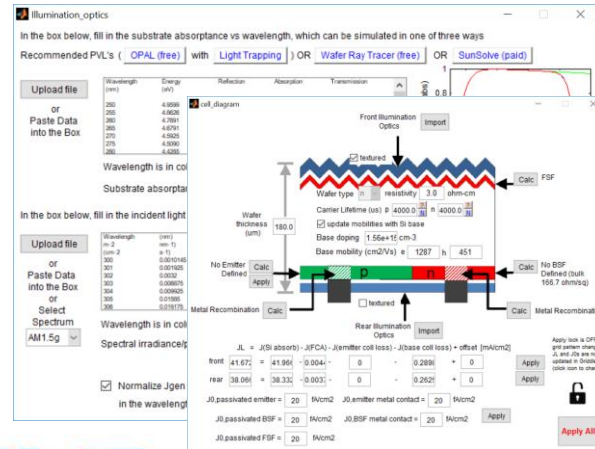# Design solar cell with Griddler 2.5 PRO and Griddler IBC
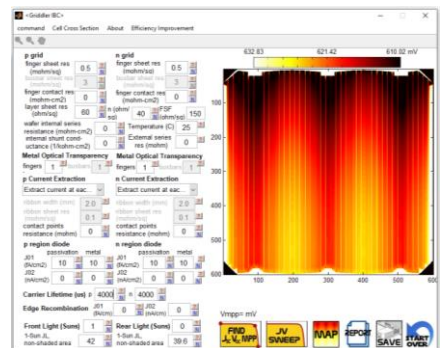
Grid Pattern Definition

Define optics, calculate diffused layers, etc

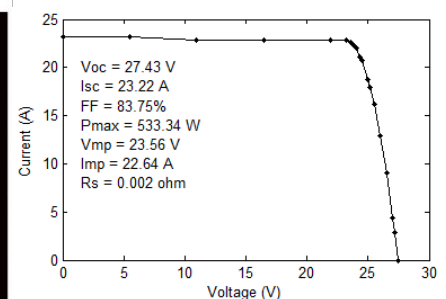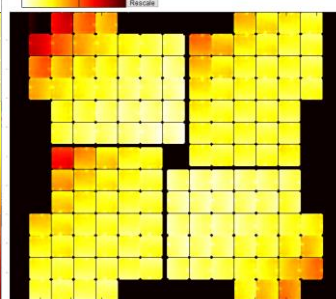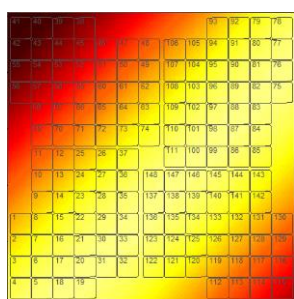**Simulate voltage, current density and I-V curve**

Design and simulate a PV module to all levels of details imaginable with Module

Layout

Define Light Field

Simulate voltage and currents

Trace I-V curve

Voc = 27.43 V
Isc = 23.22 A
FF = 83.75%
Pmax = 533.34 W
Vmp = 23.56 V
Imp = 22.64 A
Rs = 0.002 ohm

With 148 IBC silicon solar cells, the NUS Solar Helicopter Team announced that 100% solar-power flight had been achieved in a quadcopter! With full controllability (by remote control), under natural sunlight, the aircraft had no battery on board.

https://www.ece.nus.edu.sg/stfpage/eleadj/
https://doi.org/10.1002/pip.3169

Try Griddler 2.5 PRO, Griddler IBC, and Module, the integrated software suite developed over five years of research at SERIS and used by leaders in the PV manufacturing and research communities.