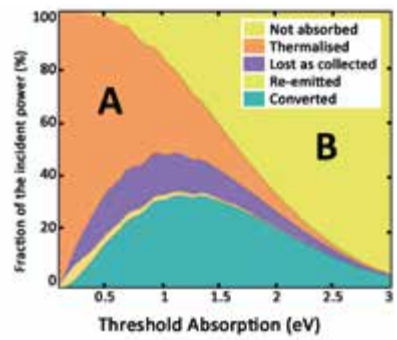


# NEW CONCEPTS ARE POTENTIAL GAME CHANGERS AS THEY TARGET THE ABSOLUTE THEORETICAL LIMIT OF 86% OF ENERGY CONVERSION

- By overcoming the two main solar cell energy loss sources: thermal losses and photons that are not absorbed
- By going beyond the conversion efficiency limit of a single junction solar cell, Shockley-Queisser limit of 33% conversion efficiency



## THUS, WE INVESTIGATE THE FOLLOWING CONCEPTS FOR FUTURE GENERATIONS OF PV TECHNOLOGIES

- Light concentration onto CIGS microcells
- Better absorption of the visible light spectrum with intermediate band solar cells, infrared light up-conversion
- Reduced thermal losses with hotcarrier cells or multijunction cells

