

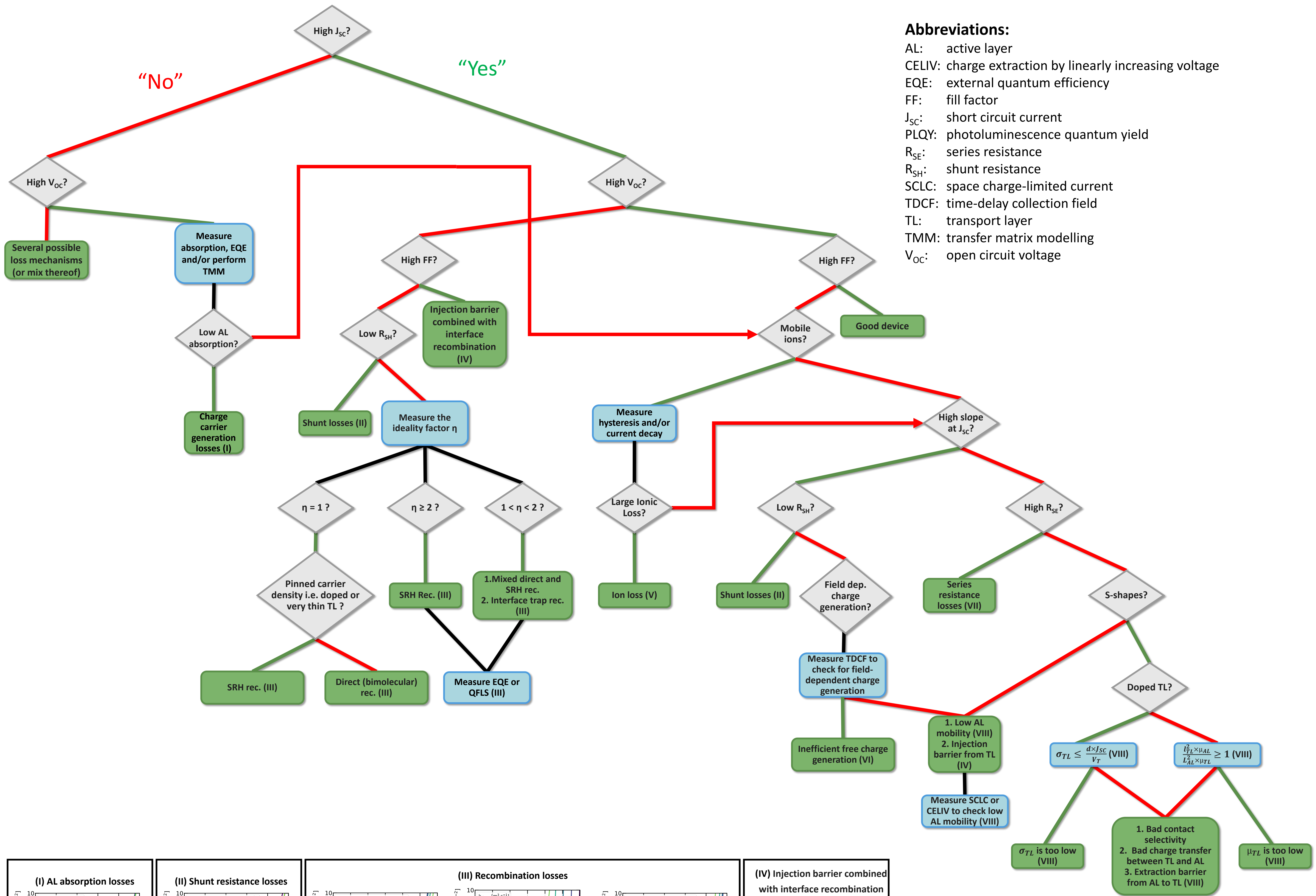
Beginner's guide to visual analysis of perovskite and organic solar cell current density-voltage characteristics

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Instructions

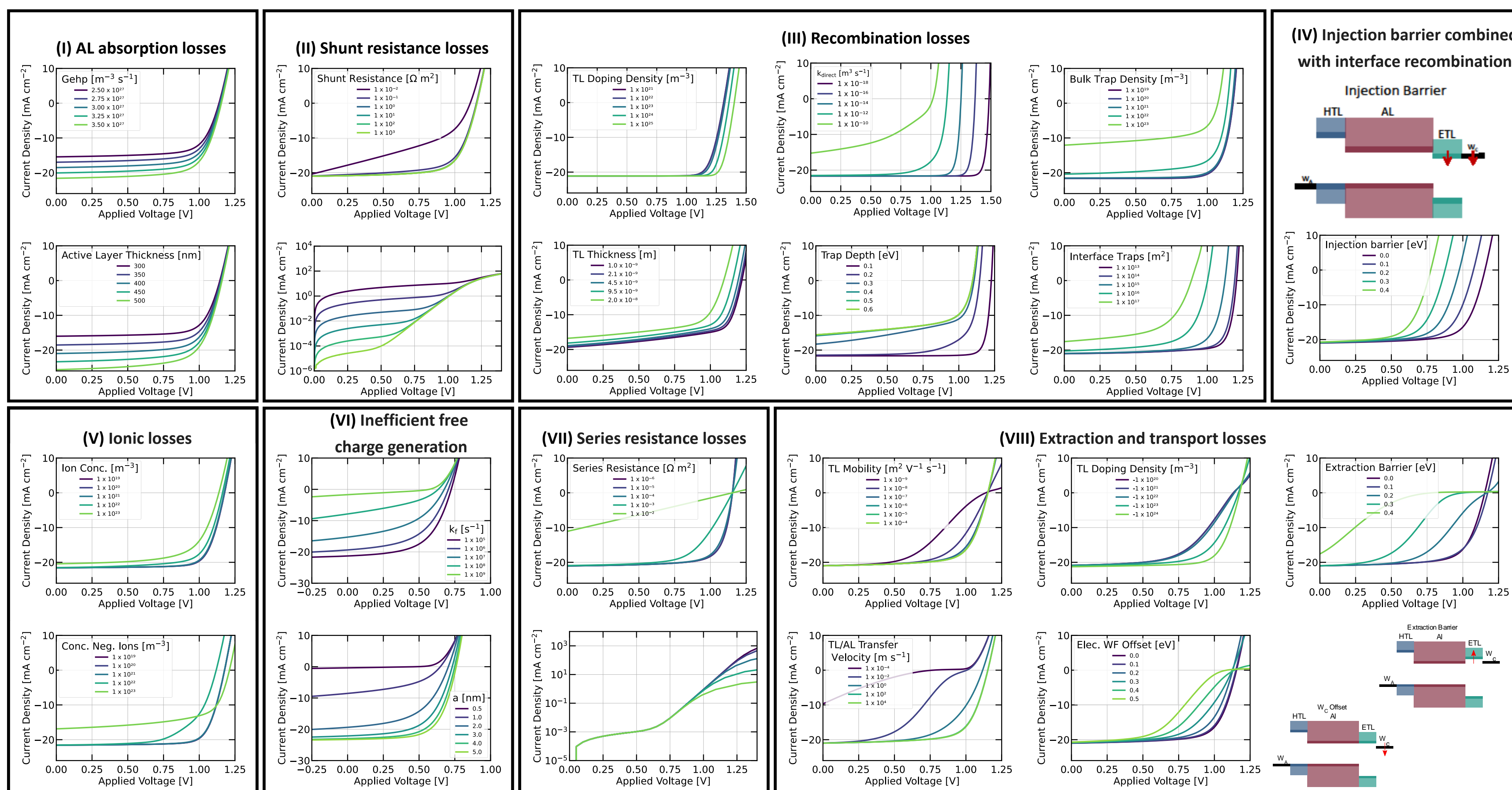
The flowchart in this poster helps you to identify the most probably limiting process in a solar cell. It is mainly based on the outcome of light-intensity-dependent current-density voltage (JV) measurements.

Navigate through the flowchart by answering the "yes" or "no" questions in the grey diamond shapes (◇). Sometimes, additional measurements are required, which are represented by the blue square-shaped nodes (□) that have to be performed before continuing. Finally, the green rounded rectangles (▭) represent the endpoints which indicate the most dominant loss mechanism. The Roman numerals guide you to the respective simulated JVs so you can compare your measured result with the simulation.

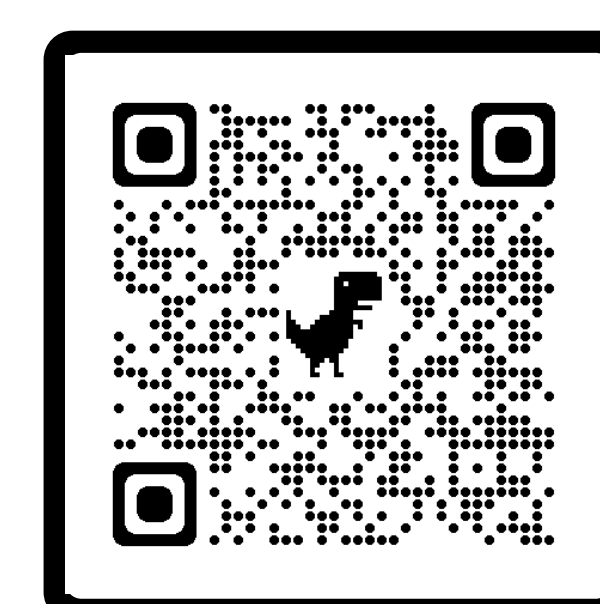


Abbreviations:

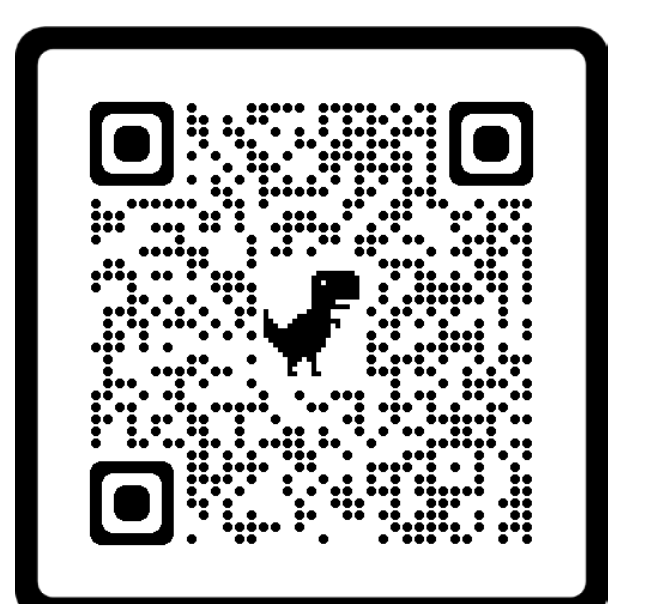
- AL: active layer
- CELIV: charge extraction by linearly increasing voltage
- EQE: external quantum efficiency
- FF: fill factor
- J_{SC} : short circuit current
- PLQY: photoluminescence quantum yield
- R_{SE} : series resistance
- R_{SH} : shunt resistance
- SCLC: space charge-limited current
- TDCF: time-delay collection field
- TL: transport layer
- TMM: transfer matrix modelling
- V_{OC} : open circuit voltage



Scan the QR codes to find the manuscript AEM manuscript and the GitHub repository with the code used for the simulations!



Publication



Code