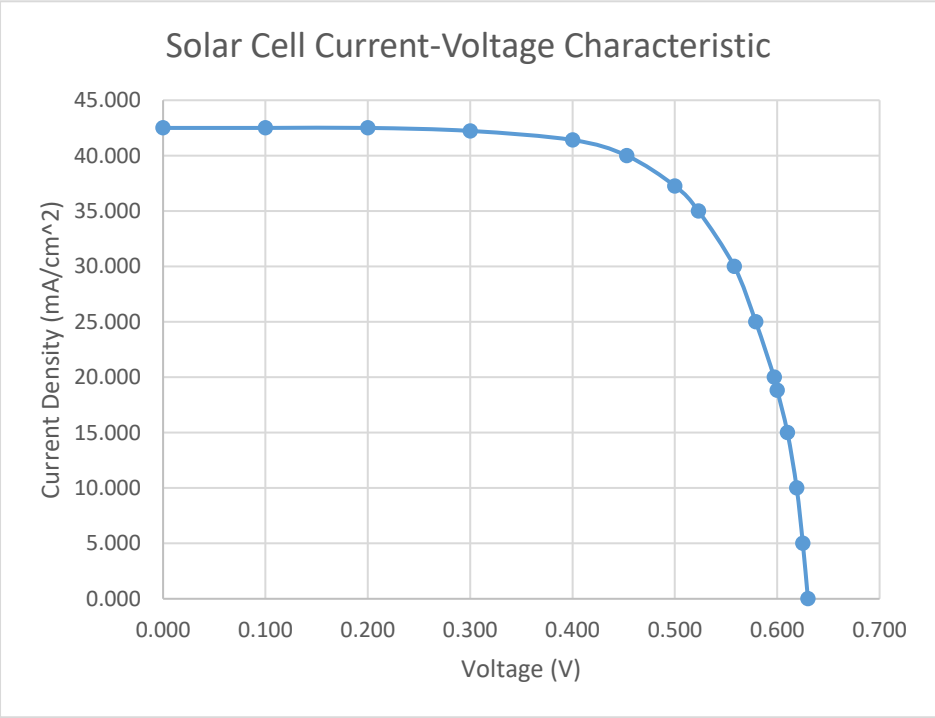
4 Solar Panel Characteristics

A solar cell current-voltage characteristic is given below:



(This data is available as a separate spreadsheet.)

Each cell has the dimensions (L x W x H): 19.6 x 6 x 2 [mm].

A solar panel is made by connecting 4 of the solar cells in *series*.

Determine the following electrical parameters of the solar panel:

(a) The open circuit voltage, V_{OC}.

(b) The short circuit current, I_{SC}.

(c) The maximum power, P_{mpp}.

[Graph the power (in mW) vs. voltage in a spreadsheet.]

(d) The voltage at the maximum power point, V_{mpp}.

(e) The current at the maximum power point, I_{mpp}.

See the datasheet of the real solar panel.