

Micro Photosynthetic Power Cell Array for Energy Harvesting: Bio-Inspired Modeling, Testing and Verification

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Supplementary information:

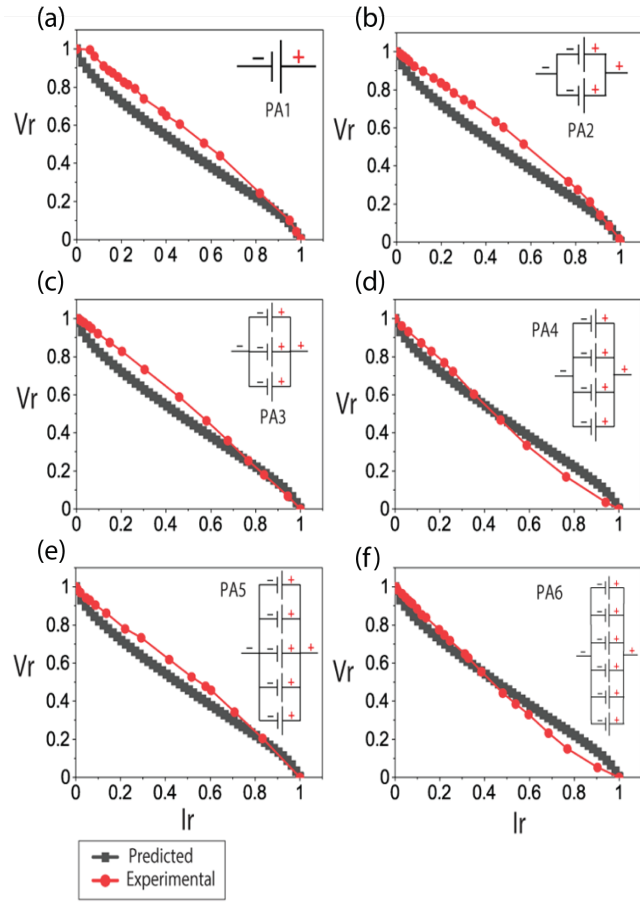


Figure S1: Normalized I-V characteristics of PA6 configuration (a) PA1 configuration (b) PA2 configuration (c) PA3 configuration (d) PA4 configuration (e) PA5 configuration (f) PA6 configuration. The red circles represent the experimental results; black squares represent the simulated (predicted results).

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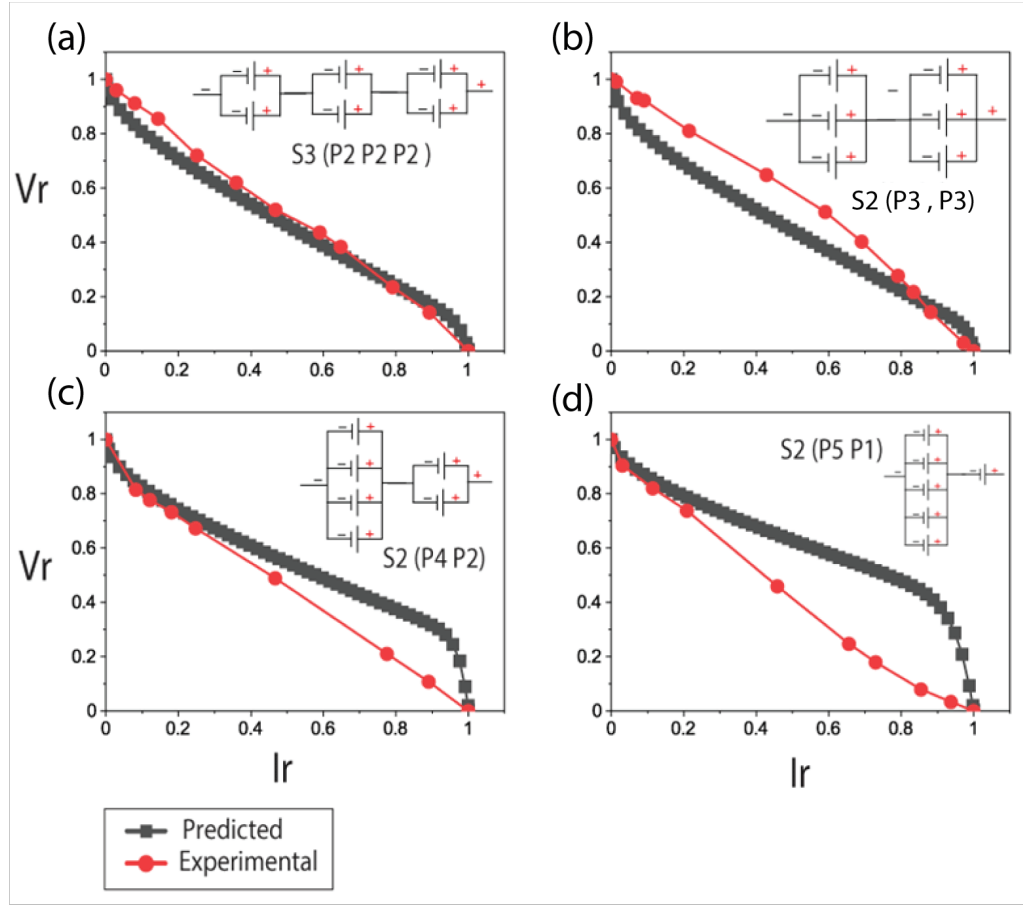


Figure S2: Normalized I-V characteristics of CC-2 configuration (a) [S2(P2, P2, P2)] configuration (b) [S2(P3, P3)] configuration (c) [S2(P4, P2)] configuration (d) [S2(P5, P1)] configuration. The red circles represent the experimental results; black squares represent the simulated (predicted values).

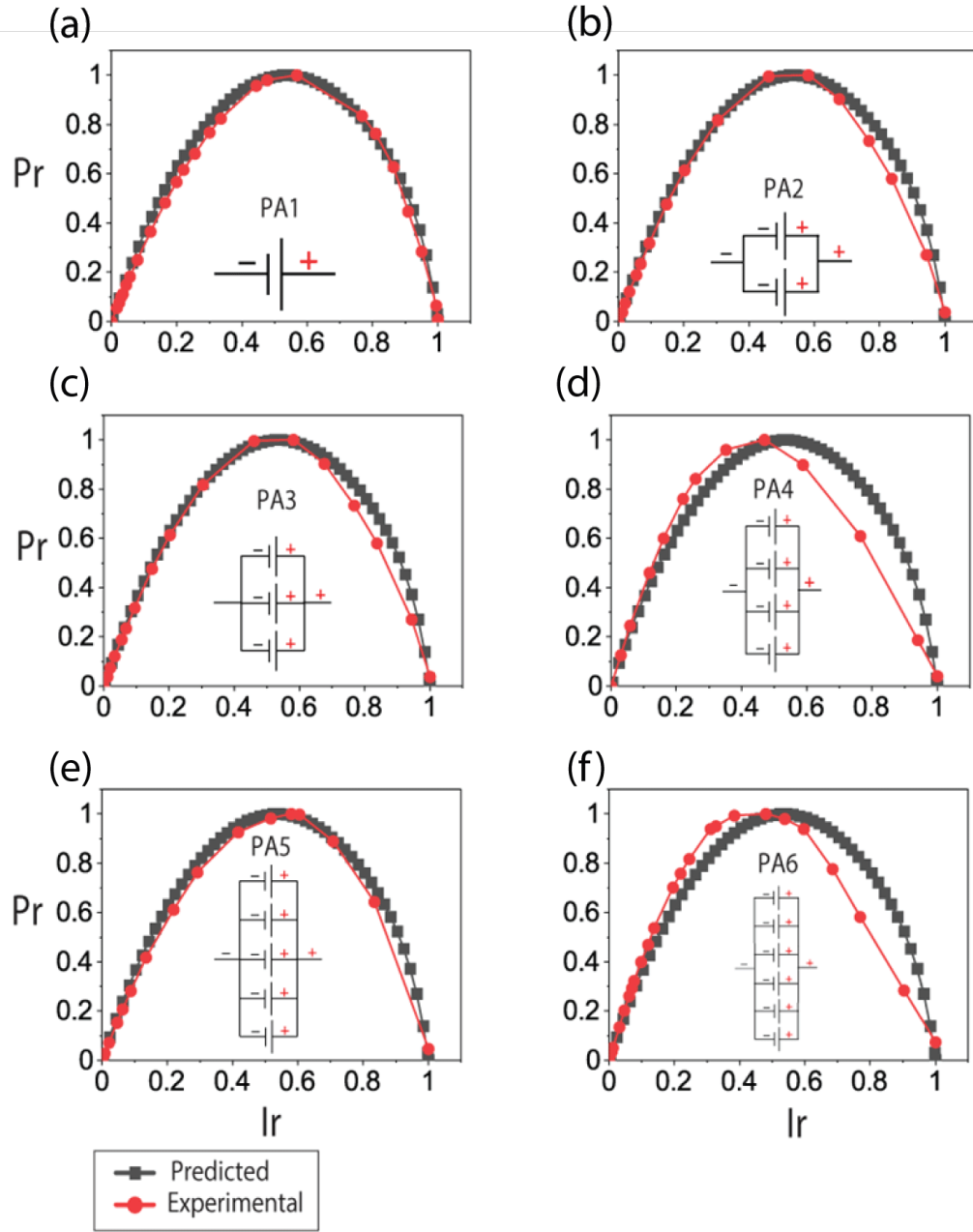


Figure S3: Normalized I-P characteristics of the PA6 configuration (a) PA1 configuration (b) PA2 configuration (c) PA3 configuration (d) PA4 configuration (e) PA5 configuration (f) PA6 configuration The red circles represent the experimental results; black squares represent the simulated (predicted values).

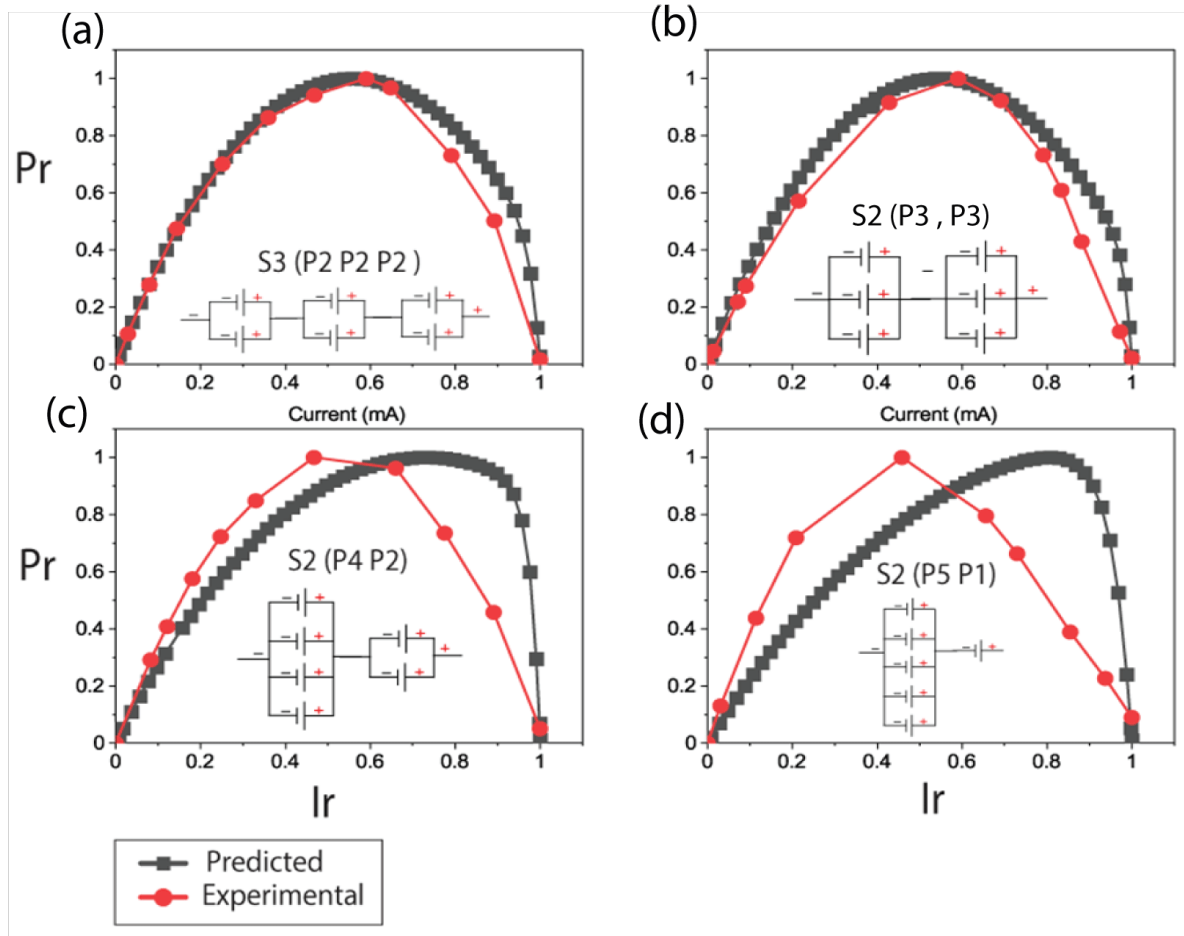


Figure S4: Normalized I-P characteristics of CC-2 configuration (a) [S2 (P2, P2, P2)] configuration (b) [S2 (P3, P3)] configuration (c) [S2 (P4, P2)] configuration (d) [S2 (P5, P1)] configuration. The red circles represented the experimental results; black squares represent the simulated (predicted values). All the scales are different to show the variation clearly.

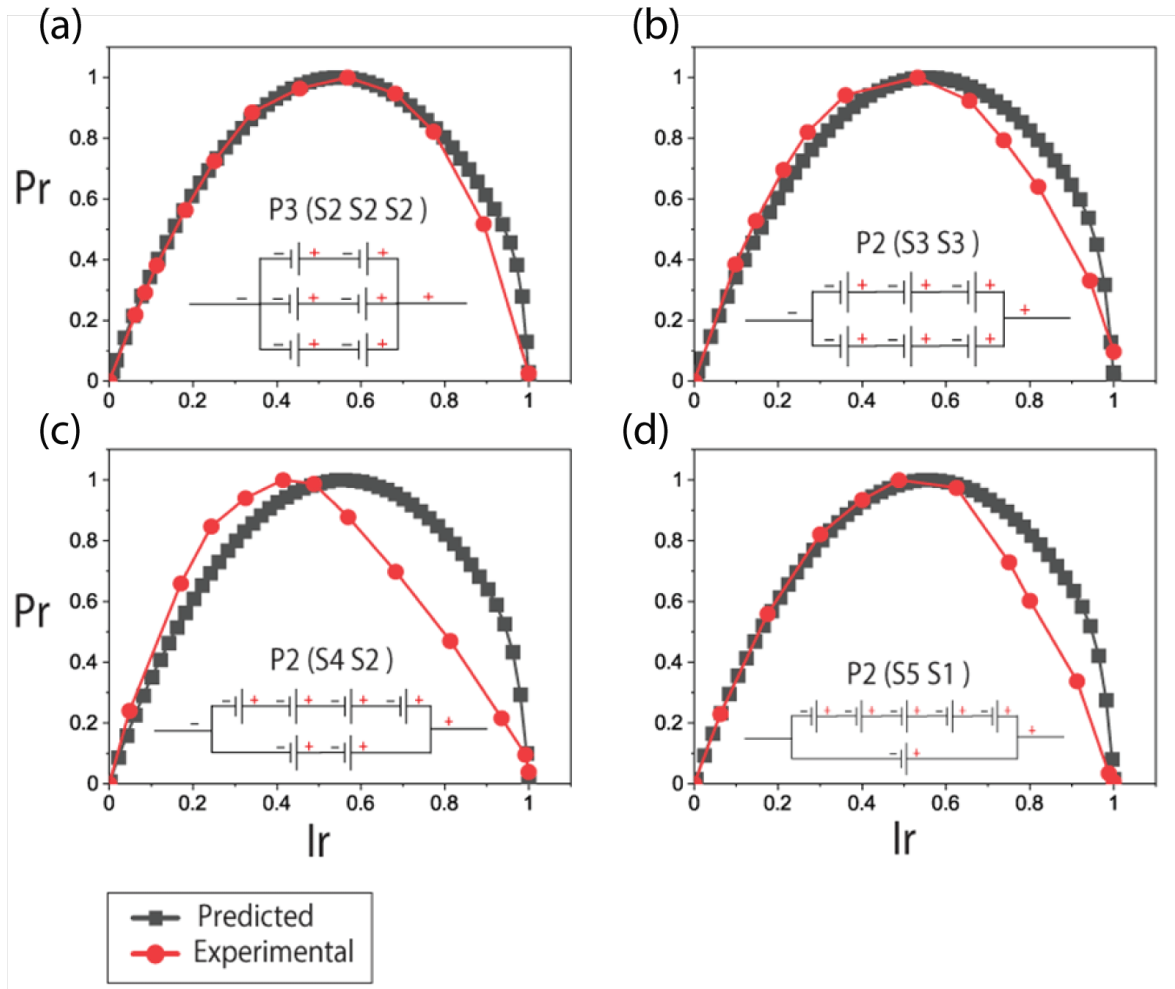


Figure S5: Normalized I-P characteristics of CC-1 configuration. (a) [P2 (S2, S2, S2)] configuration (b) [P2 (S3, S3)] configuration (c) [P2 (S4, S2)] configuration (d) [P2 (S5, S1)] configuration. The red circles represent the experimental results; black squares represent the simulated (predicted values).

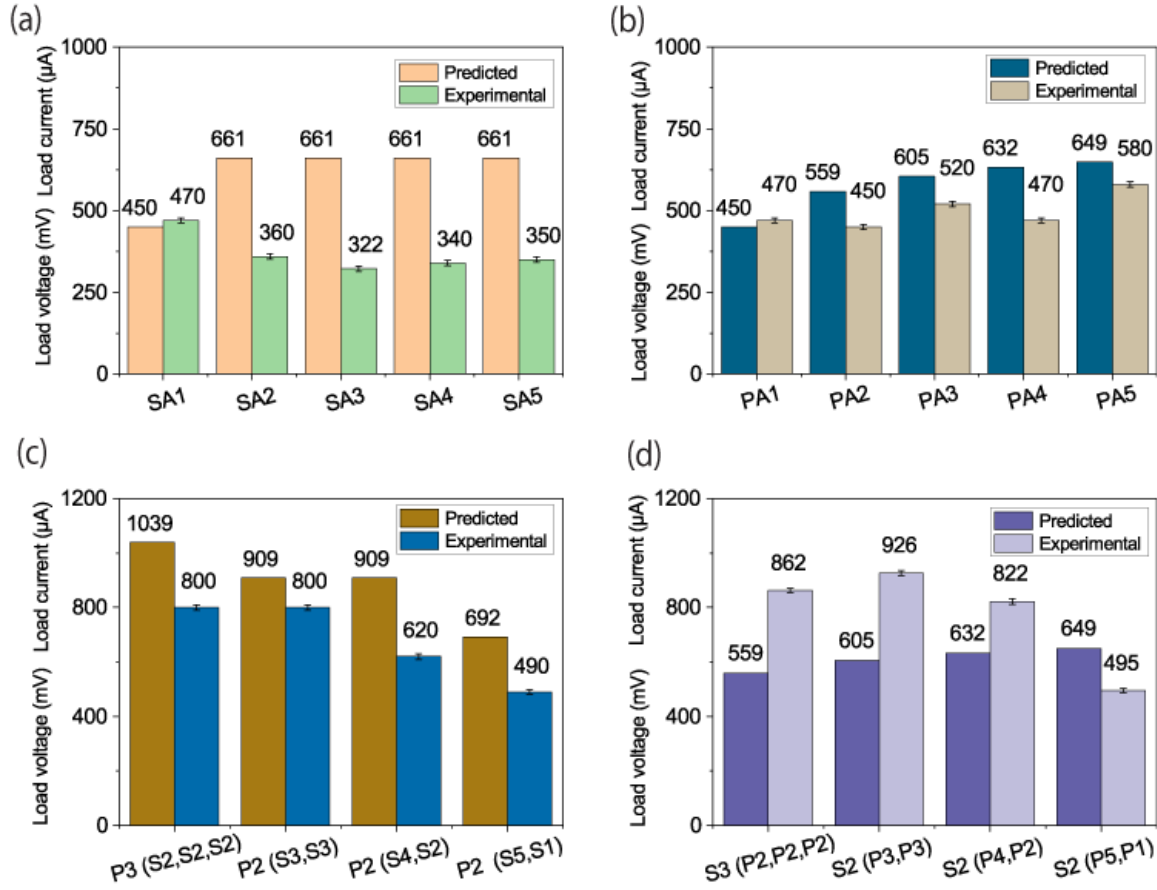


Figure S6: Variation of V_L of predicted and experimental results of all four array configurations.
 (b) SA6 configuration (b) PA6 configuration (c) CC-1 configuration (d) CC-2 configuration

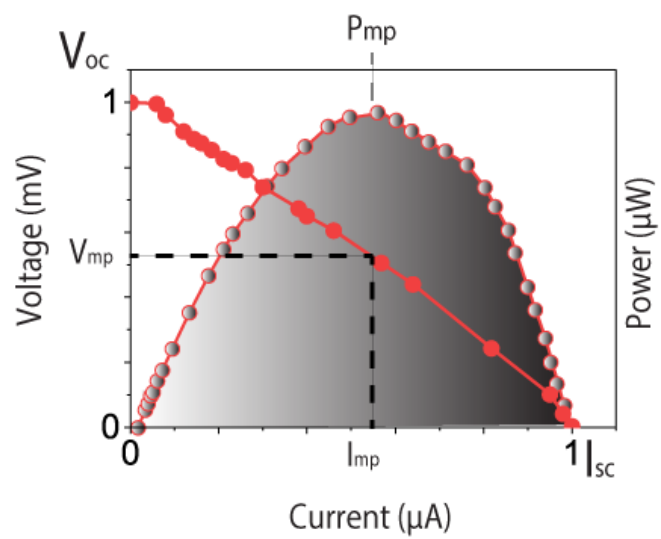


Figure S7. Fill factor of the μPSC