

Supplementary Information

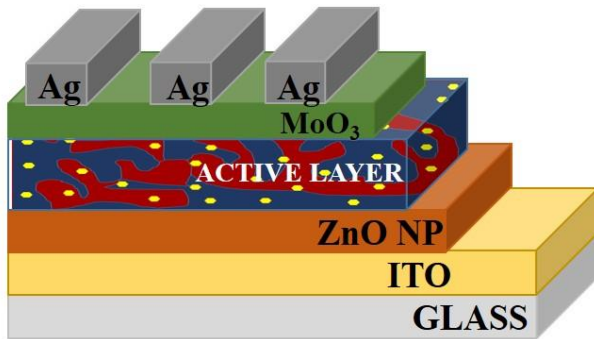
Understanding the Effects of Shape, Material and Location of Incorporation of Metal Nanoparticles on the Performance of Plasmonic Organic Solar Cells

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(a)



(b)

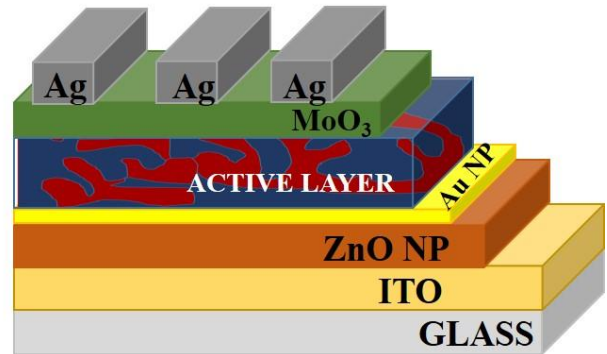


Figure S1 Schematic of inverted plasmonic solar cell (a) ITO/ZnO/Active layer + metal NPs/MoO₃/Ag (b) ITO/ZnO/ metal NPs / Active layer /MoO₃/Ag.

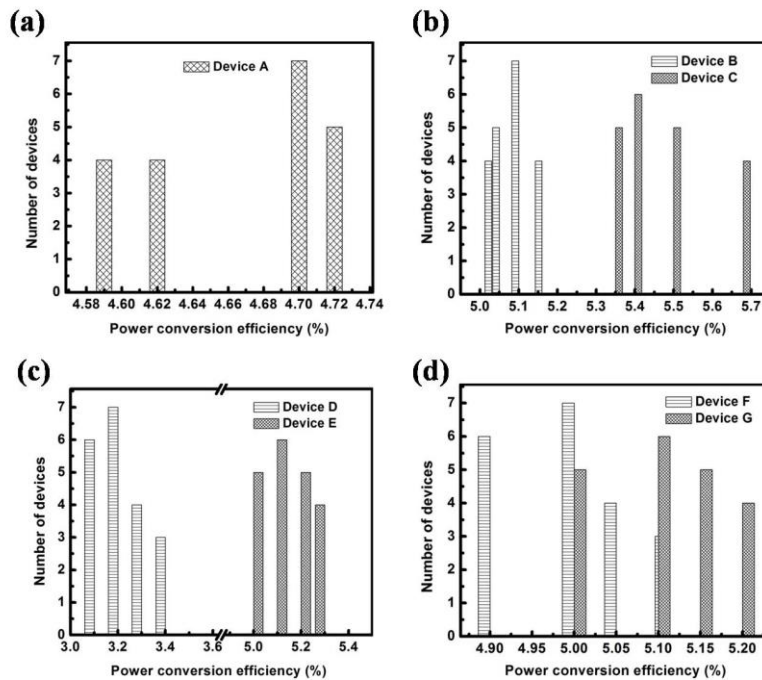


Figure S2 Histogram of power conversion efficiency for 20 devices each structure (a) device A (b) device B and C (c) device D and E and (d) device F and G.

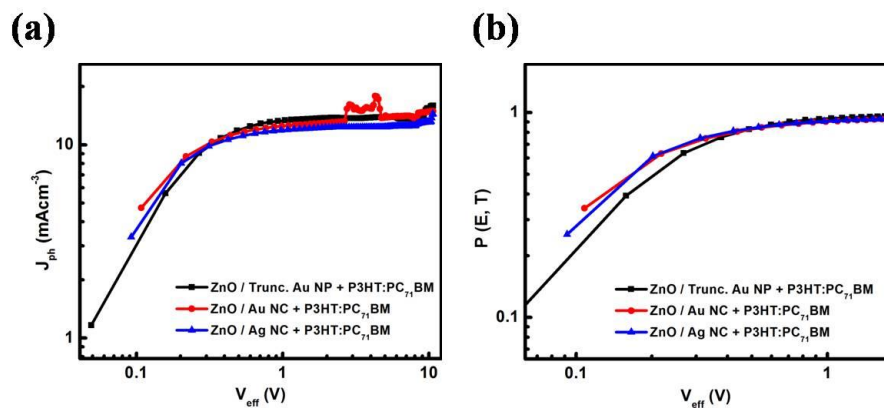


Figure S3 (a) Photocurrent (J_{ph}) versus effective voltage (V_{eff}) and (b) exciton dissociation probability [$P(E, T)$] vs. V_{eff} for NP + P3HT:PC₇₁BM based plasmonic devices.

Table S1 G_{max} and $P(E, T)$ values of NP + P3HT:PC₇₁BM based BHJ POSCs.

Device notation	Device structure	G_{max} ($m^{-3} s^{-1}$)	$P(E, T)$ (%)
B	ZnO / Trunc. octa. Au NP + P3HT :PC ₇₁ BM	8.09×10^{27}	92.99
D	ZnO / Au NC + P3HT:PC ₇₁ BM	7.20×10^{27}	87.11
F	ZnO / Ag NC + P3HT:PC ₇₁ BM	7.79×10^{27}	91.83