

## Supplementary Materials

### **Impact of localized surface plasmon resonance on efficiency of zinc oxide nanowire-based organic-inorganic perovskite solar cells fabricated in ambient conditions**

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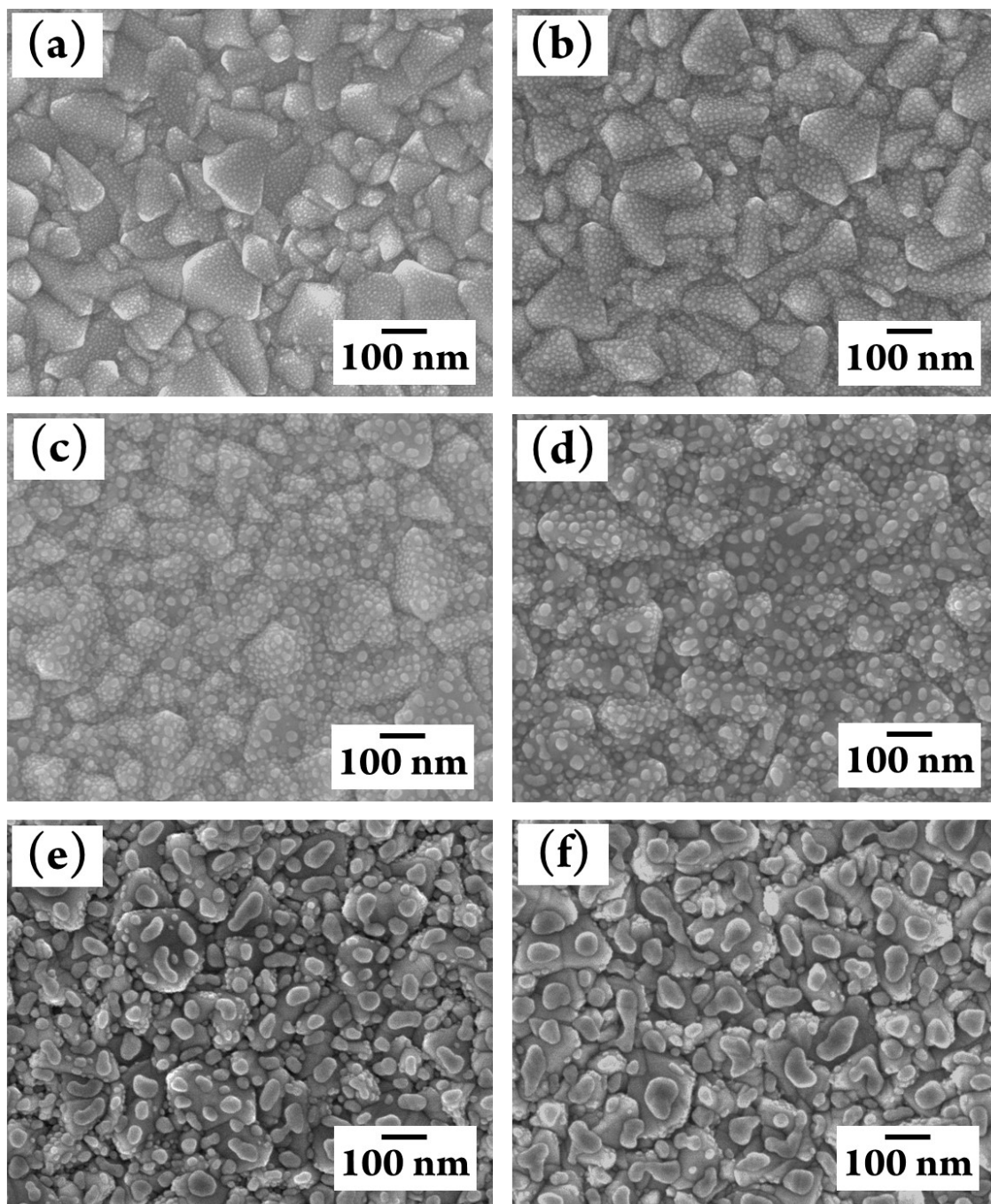
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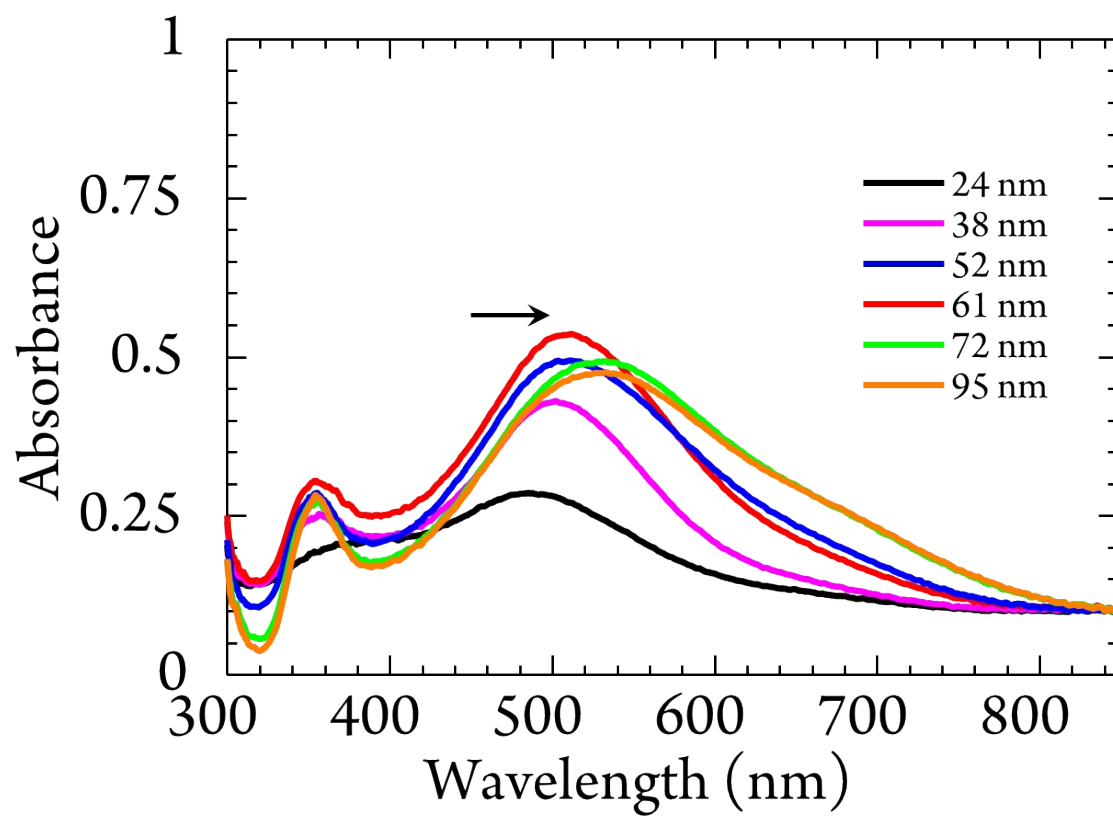
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**Table S1** The optical absorbance and the strongest dipole resonance peak vs. different sizes (Avg. diameter) of NP prepared from different thicknesses of Ag films.

Film thickness (nm)	NPs average diameter (nm)	Absorbance (-)	Dipole resonance peak wavelength (nm)
5	24	0.261	485
8	38	0.430	502
10	52	0.495	510
<b>12</b>	<b>61</b>	<b>0.536</b>	<b>512</b>
15	72	0.493	532
20	95	0.475	534



**Fig. S1** FE-SEM images of Ag NPs with an average size of (a) 24 nm, (b) 38 nm, (c) 52 nm, (d) 61 nm, (e) 72 nm, and (f) 95 nm grown on FTO substrate.



**Fig. S2** Absorption spectra of Ag NPs with an average size of (a) 24 nm, (b) 38 nm, (c) 52 nm, (d) 61 nm, (e) 72 nm, and (f) 95 nm grown on FTO substrate.