

## Supporting Information

### Highly efficient small-molecule solar cells fabricated with non-halogenated solvents

Liangang Xiao, Chang Liu, Ke Gao, Yajing Yan, Junbiao Peng, Yong Cao, Xiaobin Peng\*

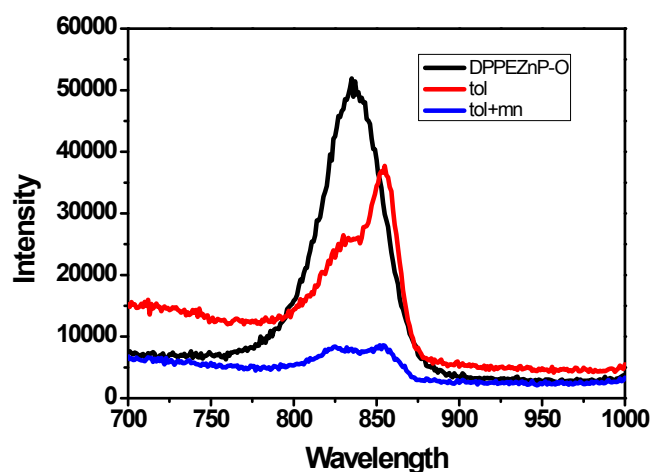


Figure S1. Photoluminescence (PL) spectra of pure DPPEZnP-O film, DPPEZnP-O:PC<sub>61</sub>BM blend films processed on glass with pure toluene and toluene +1%MN.

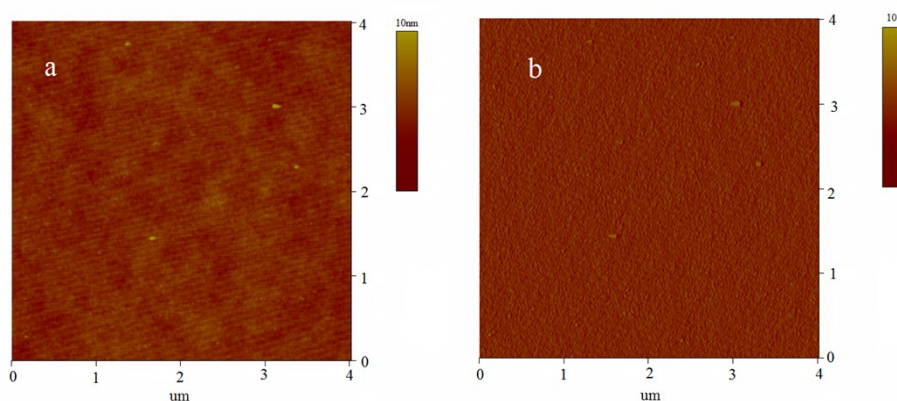


Figure S2. AFM height (a) and phase (b) images of DPPEZnP-O:PC<sub>61</sub>BM films spin-cast from toluene+1%MN with annealing.

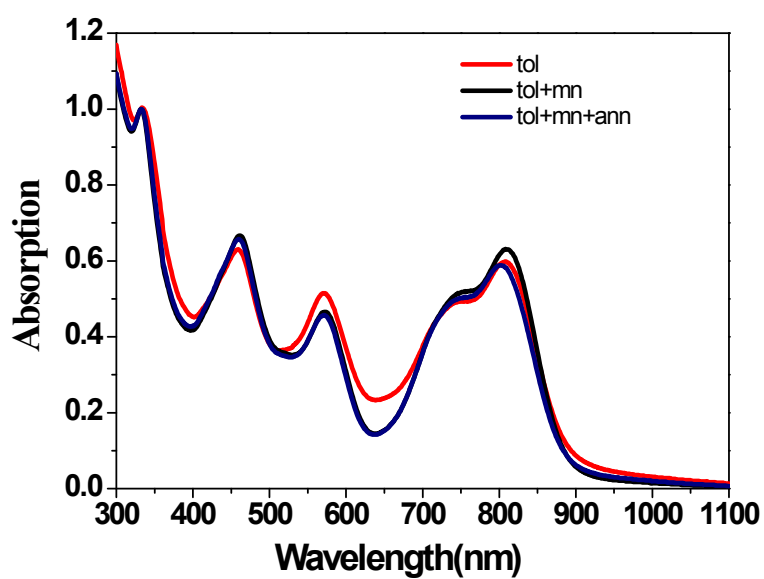


Figure S3. Absorption spectra of DPPEZnP-O: PC<sub>61</sub>BM blend films processed under different conditions.

Table.S1 Device performance using different volume of methyl naphthalene in o-xylene.

| Processing condition | $J_{SC}$ (mA cm <sup>-2</sup> ) | $V_{OC}$ (V) | $FF$ (%) | $PCE$ (%) |
|----------------------|---------------------------------|--------------|----------|-----------|
| o-xy+0.5%mn+ann      | 13.55                           | 0.76         | 52.3     | 5.39      |
| o-xy+1%mn+mn         | 15.73                           | 0.75         | 50.0     | 5.85      |
| o-xy+2%mn+ann        | 15.93                           | 0.75         | 47.2     | 5.64      |