## DBP and C<sub>70</sub> Based Inverted Tandem Solar Cells Using Simple Interconnecting Layer

## Supporting Information

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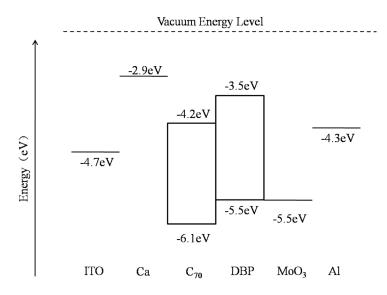


Fig. SI 1 Energy level diagram of inverted structure cells.

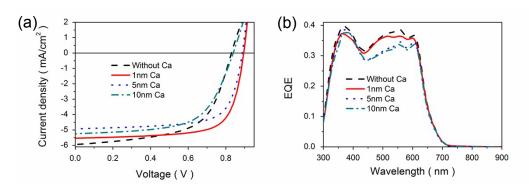


Fig. SI 2 (a) *J-V* curves of inverted structure cells with different Ca thickness under simulated AM1.5G solar illumination at 100 mW/cm<sup>2</sup>. (b) EQE spectra of inverted structure cells with different Ca thickness. Device structure: ITO/Ca( X nm )/C<sub>70</sub>( 40 nm )/DBP( 20 nm )/MoO<sub>3</sub>( 5 nm

)/Al.

| Device structure: | evice structure: 110/Ca( X nm )/ $C_{70}$ ( 40 nm )/DBP( 20 nm )/MoO <sub>3</sub> ( 5 nm )/AI. |                |        |      |
|-------------------|--|----------------|--------|------|
| Ca ( nm )         | J <sub>sc</sub> ( mA/cm² )   | $V_{oc}$ ( V ) | FF (%) | PCE% |
| 0                 | 5.95   | 0.83           | 60     | 2.97 |
| 1                 | 5.56   | 0.89           | 73     | 3.59 |
| 5                 | 4.93   | 0.89           | 71     | 3.09 |
| 10                | 5.24   | 0.84           | 62     | 2.73 |

Table SI 1 Photovoltaic performances with different Ca thickness. Device structure: ITO/Ca( X nm )/C<sub>70</sub>( 40 nm )/DBP( 20 nm )/MoO<sub>3</sub>( 5 nm )/Al.

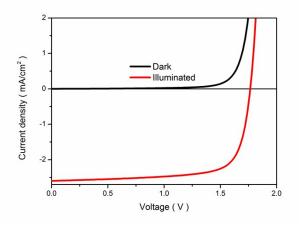


Fig. SI 3 *J-V* curves of tandem structure cells with different acceptors in front and rear cells under simulated AM1.5G solar illumination at 100 mW/cm<sup>2</sup>.