

Enhanced Photocurrent in Organic Photodetectors by Tunneling Effect of Hafnium Oxide Thin Film as an Electron Blocking Layer

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Supporting Information

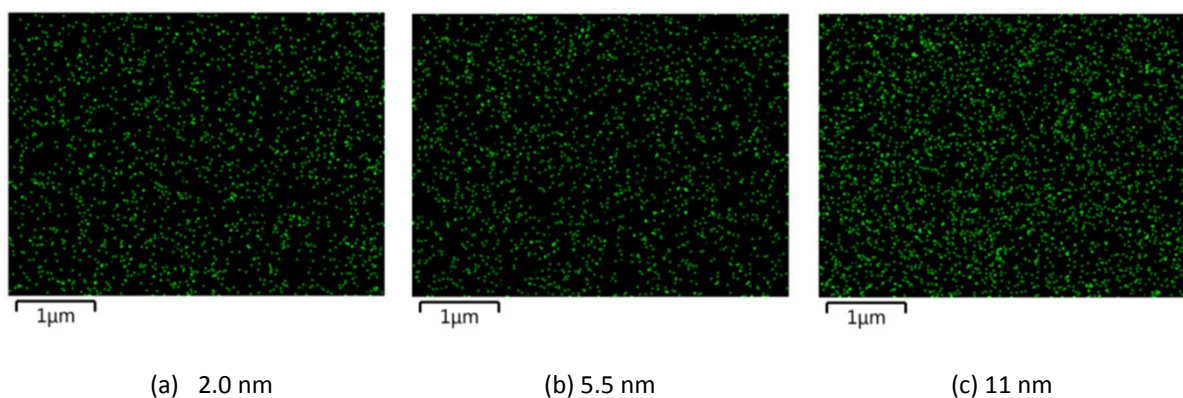


Figure S1. FE-SEM Images of various thickness of hafnium oxide using successive ionic layer deposition.

Table S1. Organic photodetector device (OPD) performance using different thicknesses of a aluminum oxide interlayer at -1 V

Thickness (nm)	Photocurrent density (A/cm ²)	Dark current density (A/cm ²)
3.0	4.96x10 ⁻⁵	2.26x10 ⁻⁸
6.0	7.51x10 ⁻⁷	3.52x10 ⁻⁸
10	2.21x10 ⁻⁷	1.29x10 ⁻⁸

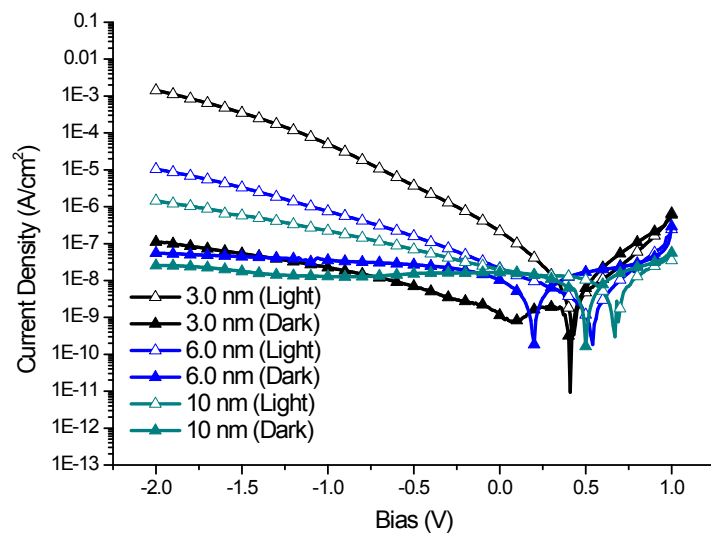


Figure S2. Current density-voltage curves of organic photodetector devices (OPDs) with various aluminum oxide electron blocking layer thicknesses.