

Supporting Information

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Thiadiazole fused subporphyrazines as acceptors in organic photovoltaic cells
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Figure S1.

Introduction of an MoO_x buffer layer with thickness of 10 nm or greater between ITO anode and SubPcH₁₂ photoabsorbing layer increases the value of U_{oc} above 1.15 V (for the Schottky-type cells) [15]. However, this simultaneously increases R_s , therefore a thinner MoO_x buffer is needed to boost the photocurrent. The figure below is an example on how optimization of the thickness of the MoO_x buffer and SubPcH₁₂ photoabsorber layers magnifies efficiency of the cell with the SubPcH₁₂/SubPcF₁₂ heterojunction. Thickness of other layers is given in Experimental section.

—×— ITO/MoO_x(10nm)/SubPcH₁₂(20nm)/SubPcF₁₂/BCP/Al
—●— ITO/MoO_x(3nm)/SubPcH₁₂(13nm)/SubPcF₁₂/BCP/Al

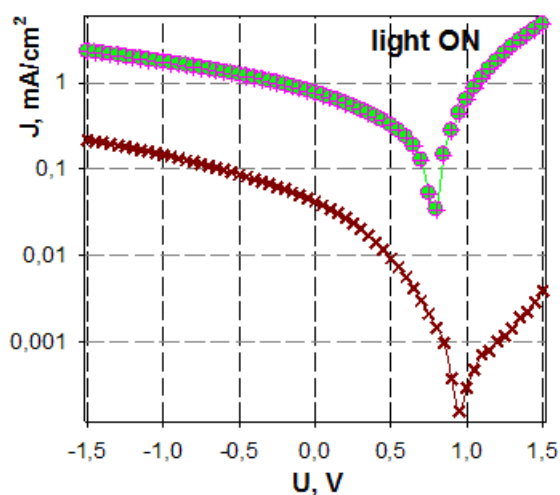


Figure S2.

Comparison of J - V characteristics of the cells with and without a BCP cathode underlayer.

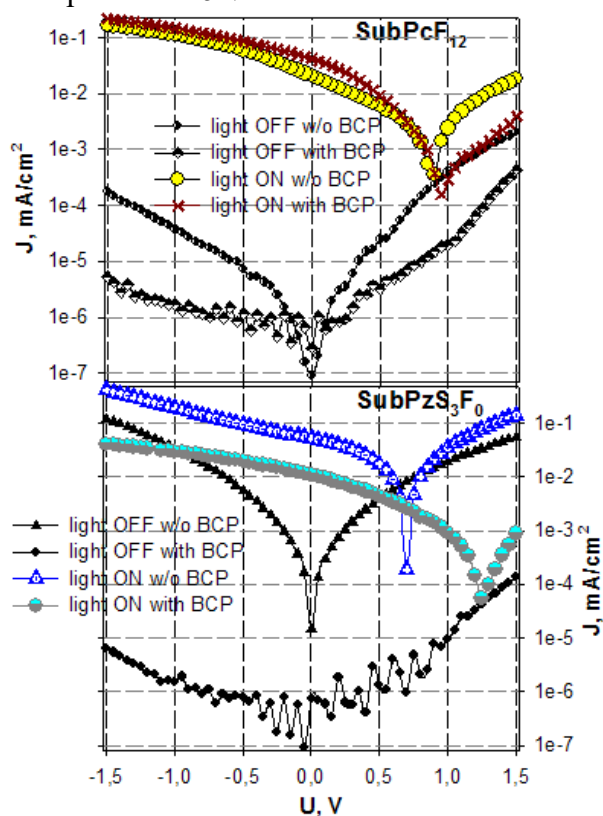


Figure S3.

Electronic absorption spectra of thin vacuum sublimed films of compounds from Figure 1. For comparison, the spectral intensity of sun irradiation (a.u.) is given. As seen from the Figure, the SubPzS₂F₄ films have the most intensive (integral) absorption in the Q-band range relative to other compounds.

