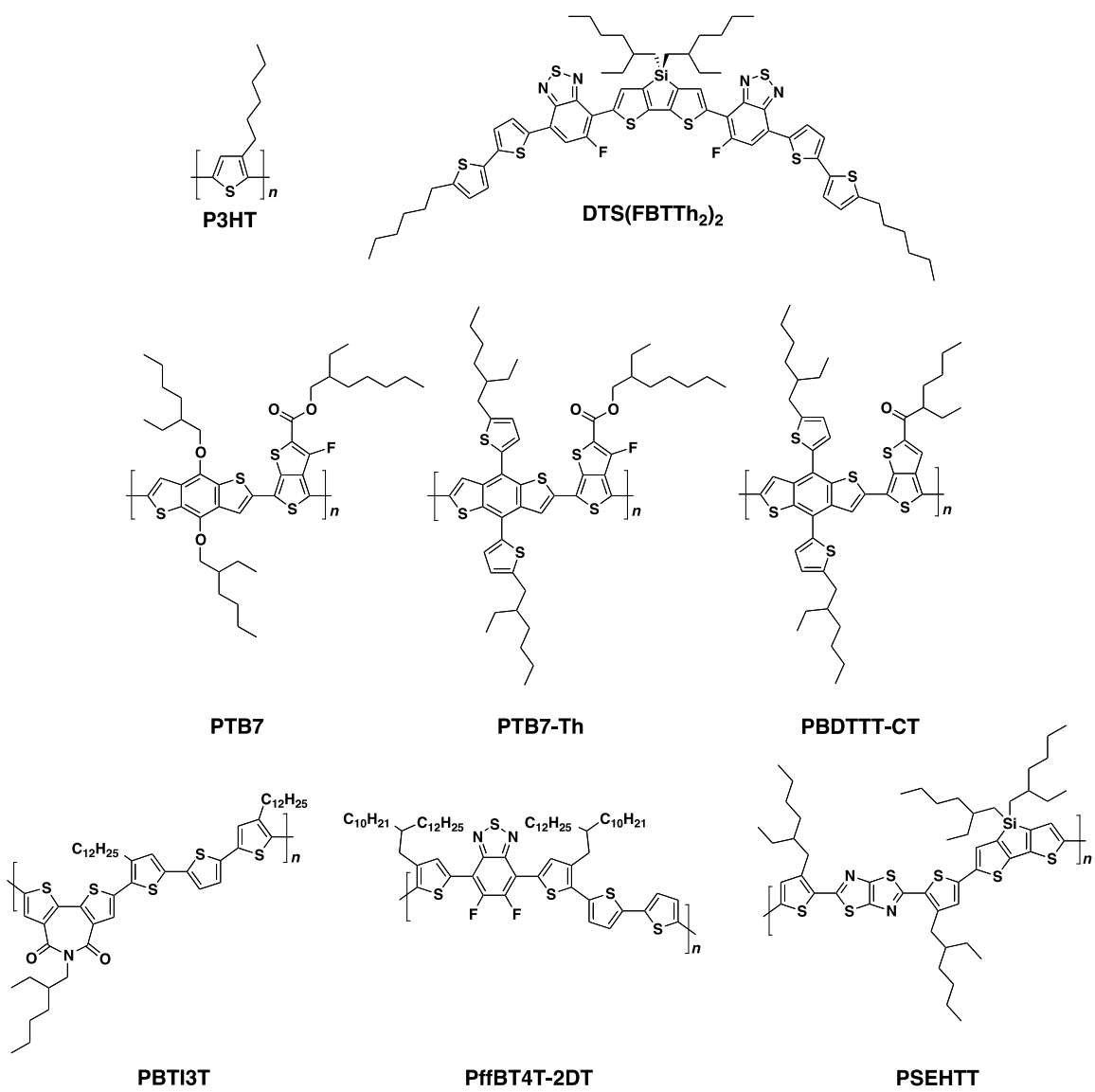


**Key components to the recent performance increases of solution  
processed non-fullerene small molecule acceptors**

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**Supporting Information**



**Figure S1.** High performance donor materials employed in BHJ OPV devices with small molecule non-fullerene acceptors.

**Table S1.** Material properties of high performance donor materials.

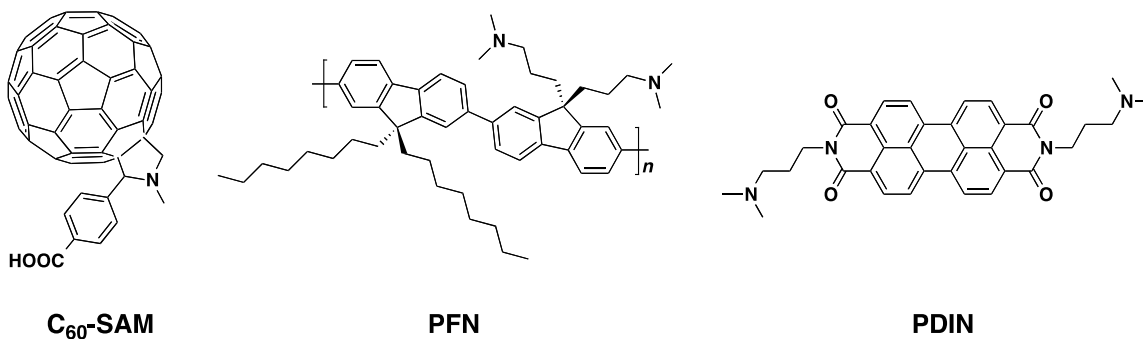
Non-Fullerene Acceptor	HOMO (eV)	LUMO (eV)	Band Gap (eV) <sup>a</sup>	Abs <sub>max</sub> (nm) <sup>b</sup>	Abs <sub>onset</sub> (nm) <sup>b</sup>	Ref
<b>P3HT</b>	-5.2	-3.2	2.0	550	650	1
<b><i>p</i>-DTS(FBTTh<sub>2</sub>)<sub>2</sub></b>	-5.1	-3.3	1.8	678	800	2
<b>PTB7</b>	-5.1	-3.5	1.6	700	750	3
<b>PTB7-Th</b>	-5.2	-3.6	1.6	725	775	3
<b>PBDTTT-CT</b>	-5.1	-3.3	1.9	630	682	4
<b>PBTI3T</b>	-5.6	-3.8	1.8	575	685	5
<b>PfBT4T-2DT</b>	-5.4	-3.7	1.7	700	750	6
<b>PSEHTT</b>	-5.1	-3.3	1.8	579	681	7

Material properties are compiled from many different laboratory settings, we caution the reader when comparing these experimental values.

Energy levels determined using cyclic voltammetry.

<sup>a</sup> Electrochemical band gap

<sup>b</sup> Thin-film absorption



**Figure S2.** Structure of interlayer materials used in non-fullerene acceptor device architectures.

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