Supporting Information

고분자 태양전지용 DPP와 furan 기반 단분자 어셉터의 CN 치환기 효과

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Influence of CN Substitution on Furan-flanked DPP-based Small-molecule Acceptors for Polymer Solar Cells

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1. ^{1}H and ^{13}C NMR spectra

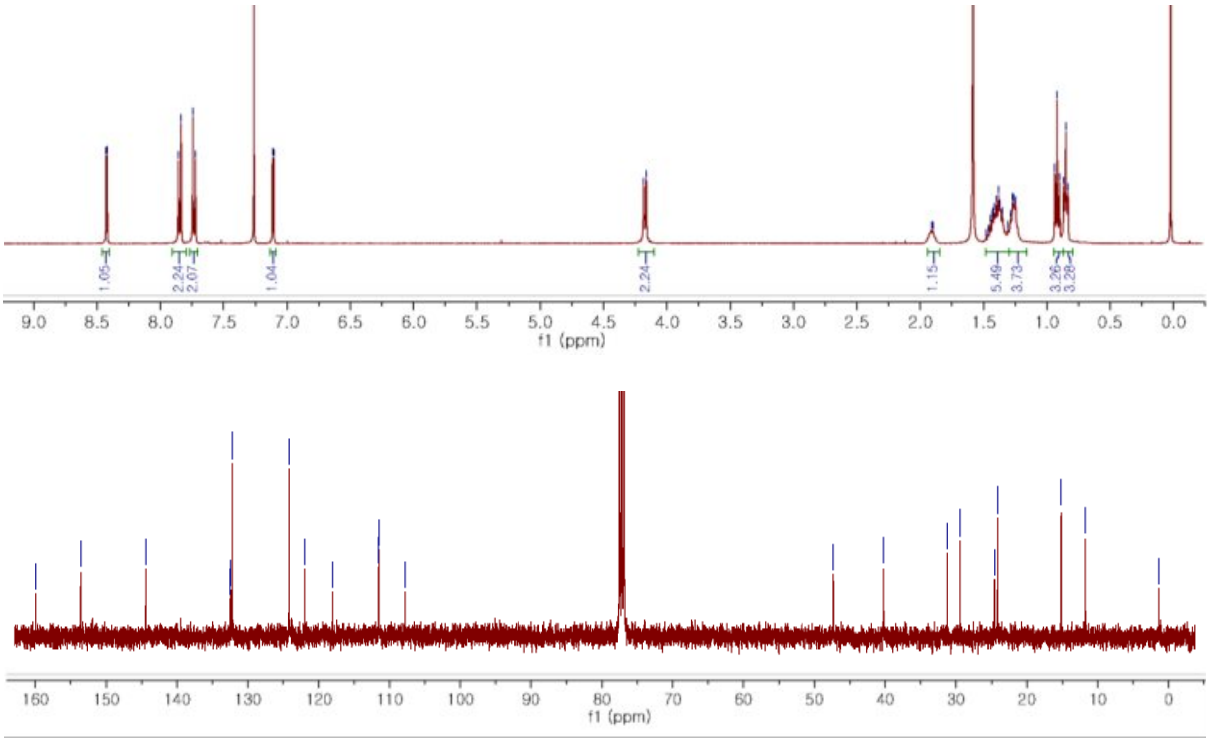

Figure S1. ^{1}H (top) and ^{13}C (bottom) NMR spectra of ***p*-DPP-F-PhCN**.

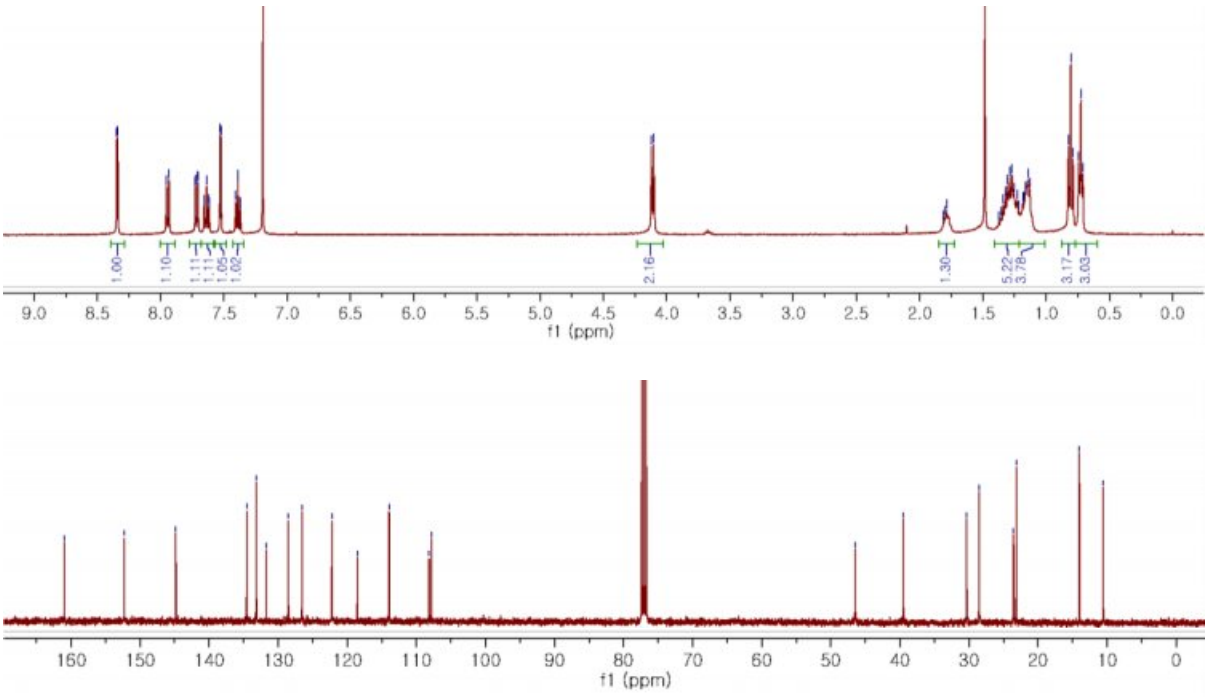

Figure S2. ^{1}H (top) and ^{13}C (bottom) NMR spectra of ***o*-DPP-F-PhCN**.

2. Physical properties

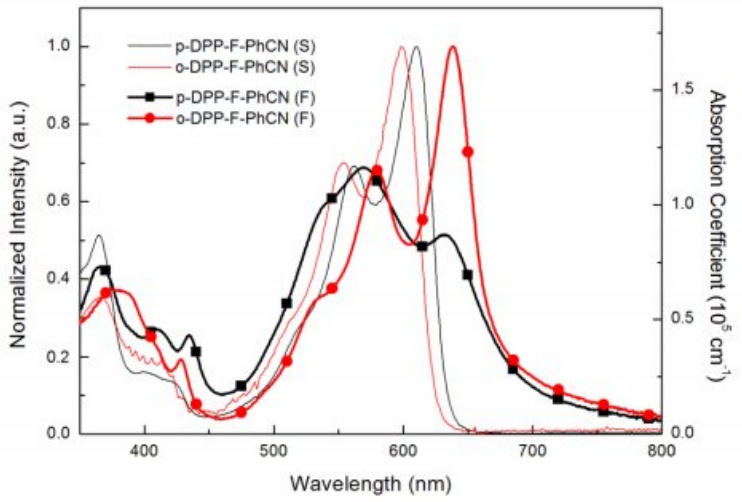

Figure S3. UV-visible absorption spectra of **DPP-F-PhCN**s in solution and films

3. PSC properties

Table S1. Photovoltaic performances of P3HT:acceptor devices[a]

	T_a (°C)[b]	V_{OC} (V)	J_{SC} (mA/cm^2)	FF (%)	PCE (%)
***p*-DPP-F-PhCN**	90	0.83	1.46	29	0.36
	120	0.57	0.95	29	0.16
***o*-DPP-F-PhCN**	90	0.68	1.18	20	0.16
	120	0.54	1.48	36	0.29

[a] The device architecture is ITO/PEDOT:PSS/P3HT:acceptor (1:1, w/w)/LiF/Al and active layers were prepared by spin-coating of a chloroform solution of donor and acceptor. [b] These devices are annealed for 10 min.