Supporting Information for;

Regioisomer Effects of Dibenzofuran-based Bipolar Host Materials on Yellow Phosphorescent OLED Device Performance

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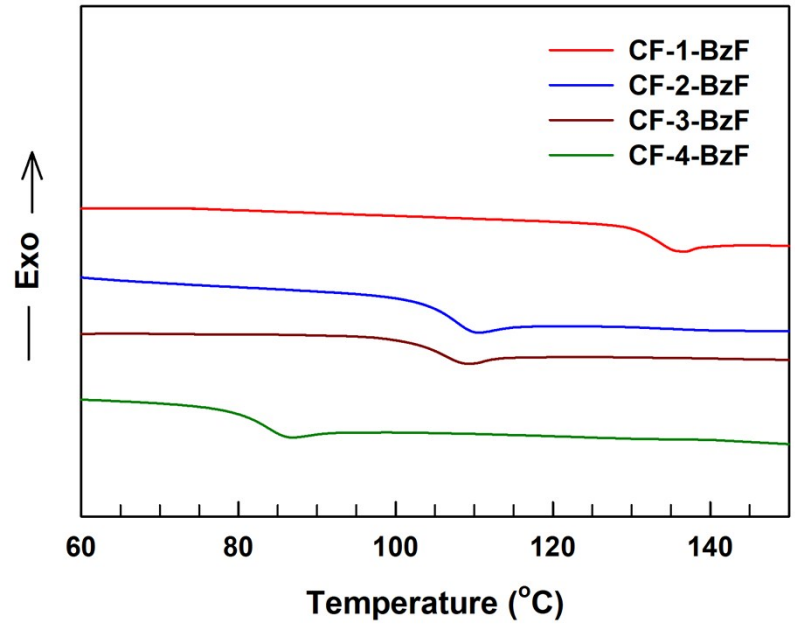

Figure S1. DSC thermograms of CF-1-BzF, CF-2-BzF, CF-3-BzF, and CF-4-BzF under a heating rate of 10 °C/min.

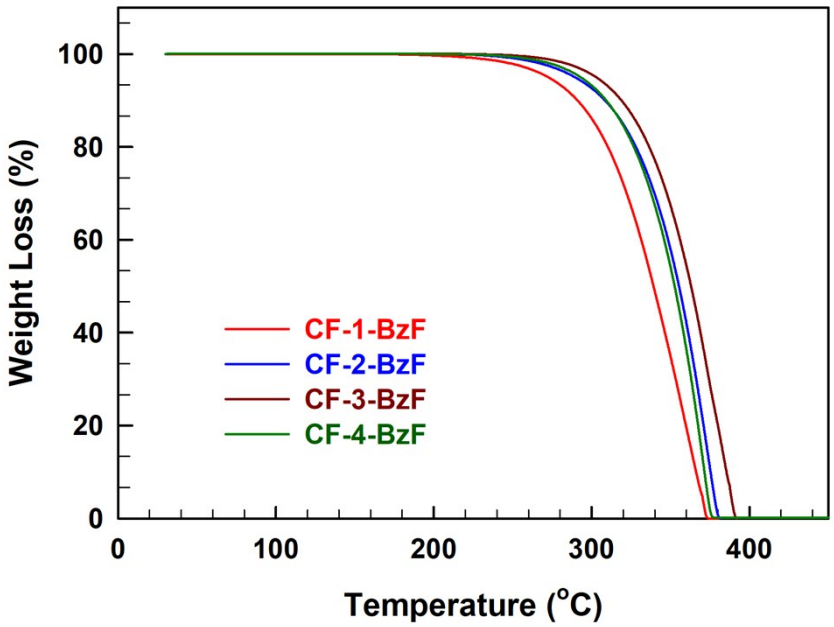

Figure S2. TGA thermograms for CF-1-BzF, CF-2-BzF, CF-3-BzF, and CF-4-BzF under a heating rate of 20 °C/min.

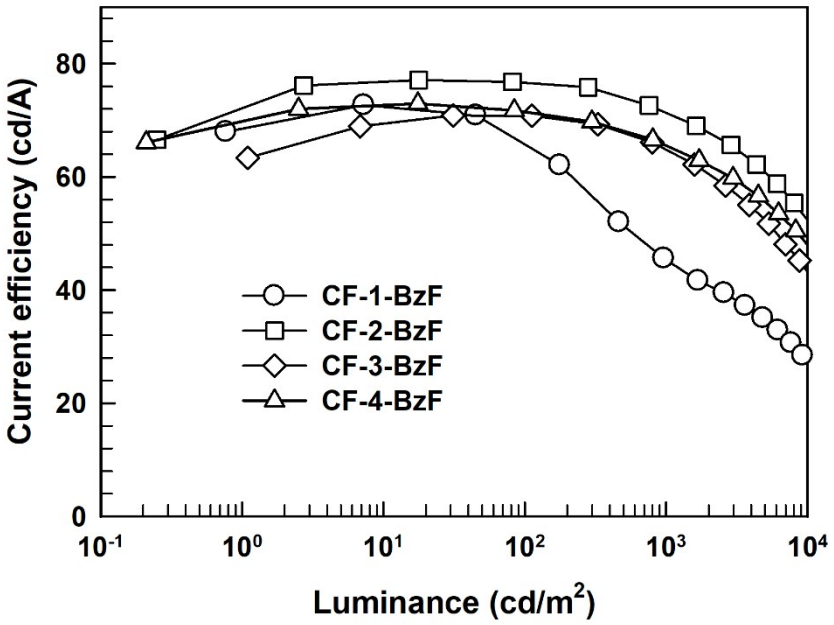

Figure S3. Current efficiency-luminance curves of [PO-01]-based devices with CF-1-BzF, CF-2-BzF, CF-3-BzF, and CF-4-BzF, respectively.

Table S1. Optoelectronic data of synthesized host materials.

Host Compound	$\lambda_{max,\ abs}$ (nm)	$\lambda_{emission}$ (nm)	E_T (eV)	HOMO [a] (eV)	LUMO [a] (eV)	E_g [b] (eV)	E_g [c] (eV)
CF-1-BzF	321	414	2.27	-5.9	-2.5	3.3	3.4
CF-2-BzF	325	418	2.41	-5.8	-2.4	3.3	3.4
CF-3-BzF	337	418	2.30	-5.8	-1.9	3.3	3.9
CF-4-BzF	324	416	2.37	-5.8	-1.8	3.5	4.0

[a]: HOMO and LUMO were calculated from the onset value of the oxidation and reduction potentials, respectively.

[b]: The band gap energies were estimated from the optical absorption edges of UV-Vis absorption spectra.

[c]: The band gap energies were estimated from CV.

Table S2. Electroluminescence characteristics of the [PO-01]-based yellow PhOLEDs.

Host Compound	Doping Conc. (%)	V_{on}[a] (V) at 1 cd/m^2	CE (cd/A)		PE (lm/W)		EQE (%)		CIE (x ; y)
			1000 cd	Max.	1000 cd	Max.	1000 cd	Max.	
CF-1-BzF	5	6.8	35.89	74.56	16.88	52.04	11.35	23.71	(0.49 ; 0.51)
	10	6.5	45.37	72.68	21.84	53.6	14.85	23.98	(0.50 ; 0.50)
CF-2-BzF	5	6.5	74.11	76.59	35.99	53.13	23.73	24.54	(0.50 ; 0.50)
	10	6.1	71.60	77.12	36.70	59.78	23.49	25.27	(0.50 ; 0.49)
CF-3-BzF	5	7.2	69.70	73.48	30.55	40.24	22.91	24.16	(0.50 ; 0.49)
	10	6.6	65.09	70.87	30.90	49.75	21.93	23.90	(0.51 ; 0.49)
CF-4-BzF	5	6.5	70.15	72.79	34.01	44.55	22.33	23.19	(0.49 ; 050)
	10	6.1	65.78	72.94	33.88	59.30	21.45	23.82	(0.50 ; 0.50)

[a]: turn-on voltage