

## Electronic Supplementary Information

### Aggregation-induced emission of diarylamino- $\pi$ -carborane triads: Effects of Charge transfer and $\pi$ -conjugation

Yang-Jin Cho,<sup>a</sup> So-Yoen Kim,<sup>a</sup> Minji Cho,<sup>a</sup> Won-Sik Han,<sup>b</sup> Ho-Jin Son,<sup>a</sup> Dae Won Cho,<sup>a,c,\*</sup> and Sang Ook Kang<sup>a,\*</sup>

<sup>a</sup>Department of Advanced Materials Chemistry, Korea University (Sejong), Sejong, 30019, South Korea.  
E-mail: [sangok@korea.ac.kr](mailto:sangok@korea.ac.kr)

<sup>b</sup>Department of Chemistry, Seoul Woman's University (Seoul), Seoul, 01797, Korea

<sup>c</sup>Center for Photovoltaic Materials, Korea University (Sejong), Sejong, 30019, Korea. E-mail:  
[dwcho@korea.ac.kr](mailto:dwcho@korea.ac.kr)

## Figures

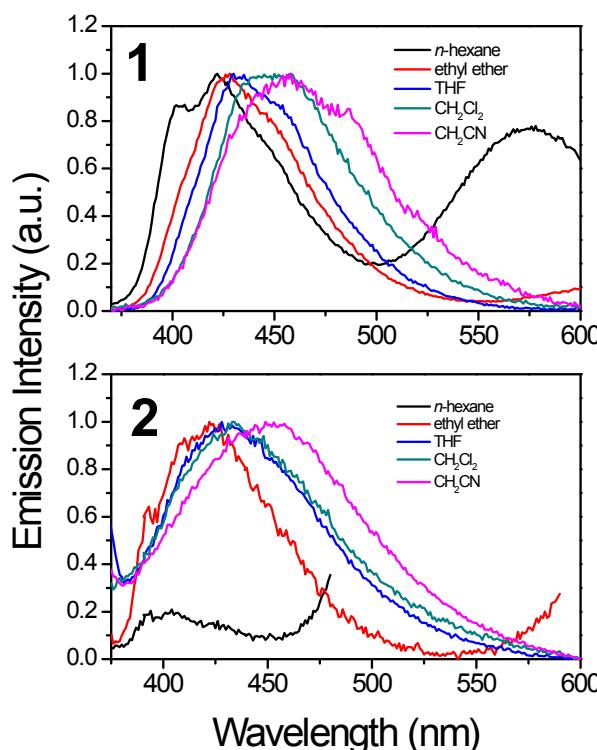


Fig. S1 emission spectra of **1** and **2** in various solvents.

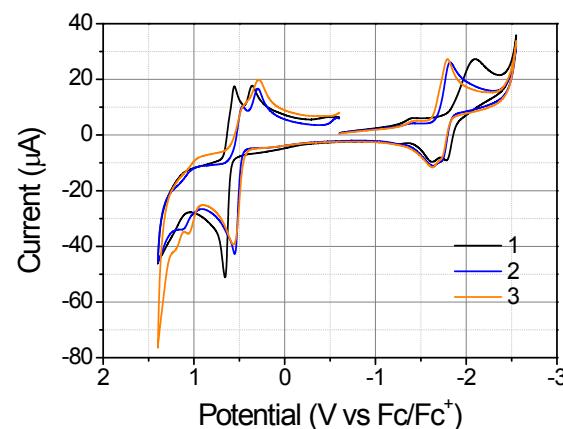


Fig. S2 Cyclic voltammograms of **1**, **2** and **3**.

## Tables

Table S1. Maxima wavelength (nm) for the CT emission of **1**, **2**, and **3** measured in various solvents

solvents	<b>1</b>	<b>2</b>	<b>3</b>
<i>n</i> -hexane	393	404	405
Ethyl ether	412	421	418
THF	423	430	432
CH <sub>2</sub> Cl <sub>2</sub>	433	437	439
CH <sub>3</sub> CN	459	451	459

**Table S2.** Maxima wavelength (nm) for the AIE emission of **1**, **2**, and **3** measured in various solvents

solvents	<b>1</b>	<b>2</b>	<b>3</b>
<i>n</i> -hexane	577	570	577
cyclohexane	581	577	563
dibutyl ether	622	652	665
ethyl ether	650	695	-
CHCl <sub>3</sub>	677	703	-
ethyl acetate	683	759	-
CH <sub>3</sub> CN	682	-	-

**Table S3.** Energies (eV) of orbitals calculated by B2LYP/6-31G(d,p) for **1**, **2** and **3**.

orbitals	<b>1</b>	<b>2</b>	<b>3</b>
L+3		-1.121	-1.228
L+2	-1.174	-1.281	-1.249
L+1	-1.375	-1.327	-1.388
LUMO	-1.430	-1.503	-1.624
HOMO	-5.344	-5.158	-5.072
H-1	-5.375	-5.169	-5.075
H-2	-6.201	-6.076	-5.968
H-3		-6.097	-5.984