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Photoinduced electron and hole transfers in carbazole dendrimers with heteroleptic Ir-complex cores

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Figures

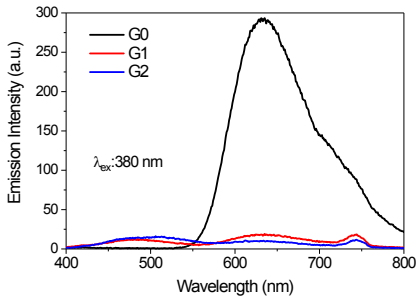

Fig. S1. Emission spectra of **G0**, **G1** and **G2** in CH_2Cl_2. Excitation wavelength is 380 nm.

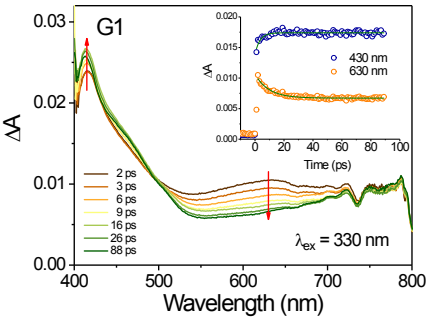

Fig. S3. Transient absorption spectra of **G1** in CH_2Cl_2 at various time delays. Excitation wavelength is 330 nm. Inset figure indicates the decay profiles monitored at 430 and 630 nm, respectively.

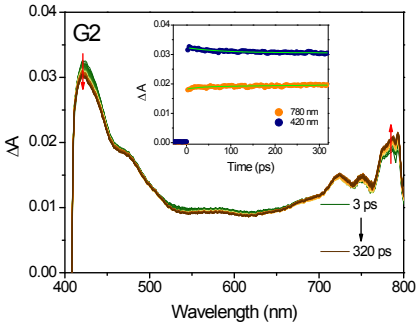

Fig. S2. Transient absorption spectra of **G2** in CH_2Cl_2 at various time delays. Excitation wavelength is 400 nm. Inset figure indicates the decay profiles monitored at 420 and 780 nm, respectively.

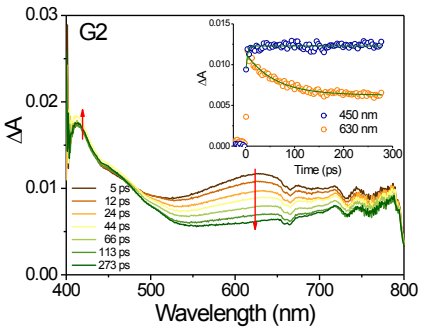

Fig. S4. Transient absorption spectra of **G2** in CH_2Cl_2 at various time delays. Excitation wavelength is 330 nm. Inset figure indicates the decay profiles monitored at 450 and 630 nm, respectively.

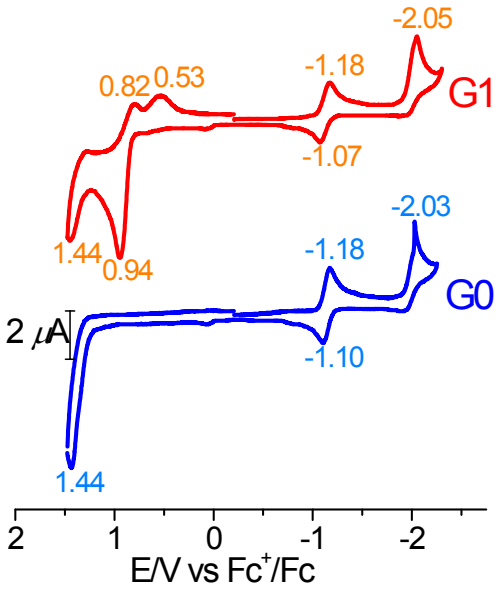

Fig. S5. Cyclic voltammograms for 0.5 mM CH_2Cl_2 solution of **G0** and **G1** containing 0.1 M TBAPF taken at a scan rate of 0.1 V/s.

CV measurement

The cyclic voltammetry experiments were performed using an electrochemical analyzer (Bioanalytical System Inc., BAS 100). The three-electrode cell system used comprised a glassy carbon electrode as the working electrode, and a platinum wire and $Ag/AgNO_3$ as a counter and reference electrodes, respectively. The potential values were measured relative to an internal ferrocenium/ferrocene reference (Fc^+/Fc). Freshly distilled, N_2-purged CH_2Cl_2 was used as the solvent with 0.1 M tetrabutylammonium tetrafluoroborate electrolyte as the supporting electrolyte.

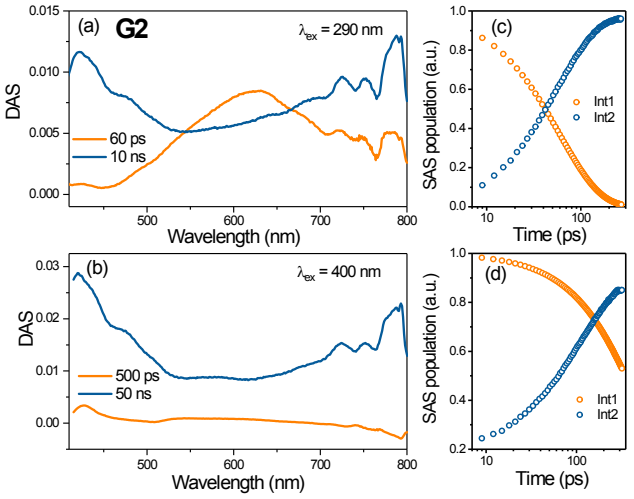

Fig. S6. (a) and (b) are simulated DAS of **G2** with the associated exponential time constants resulting from a global fit of the TA data. (b) and (d) show SAS population change for intermediates of G1 (INT) of G1 (INT 1, navy blue; INT 2, orange). (a), (c) and (b), (d) obtained upon excitation with 290 nm and 400 nm, respectively.