

## Supplementary Information

### Impact of the core on the inter-branch exciton exchange in dendrimers

Valeria Bonilla,<sup>a</sup> Victor M. Freixas,<sup>b</sup> Sebastian Fernandez-Alberti<sup>b</sup> and Johan F. Galindo<sup>\*a</sup>

<sup>a</sup> Departamento de Química, Universidad Nacional de Colombia, Sede Bogotá, 111321 Bogotá, Colombia.

<sup>b</sup> Departamento de Ciencia y Tecnología, Universidad Nacional de Quilmes/CONICET, B1876BXD Bernal, Argentina.

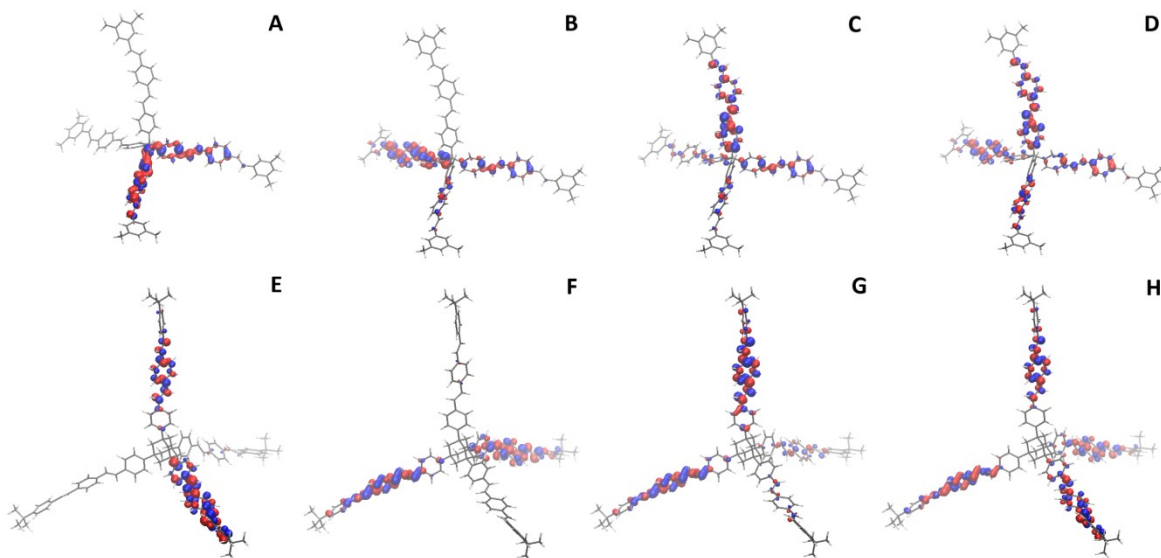


Fig. S 1 Transition density localization of the main excited states of each system, calculated from the ground state geometry. A, B, C, D) C(dSSB)<sub>4</sub> and E, F, G, H) Ad(BuSSB)<sub>4</sub>.

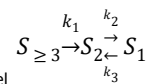
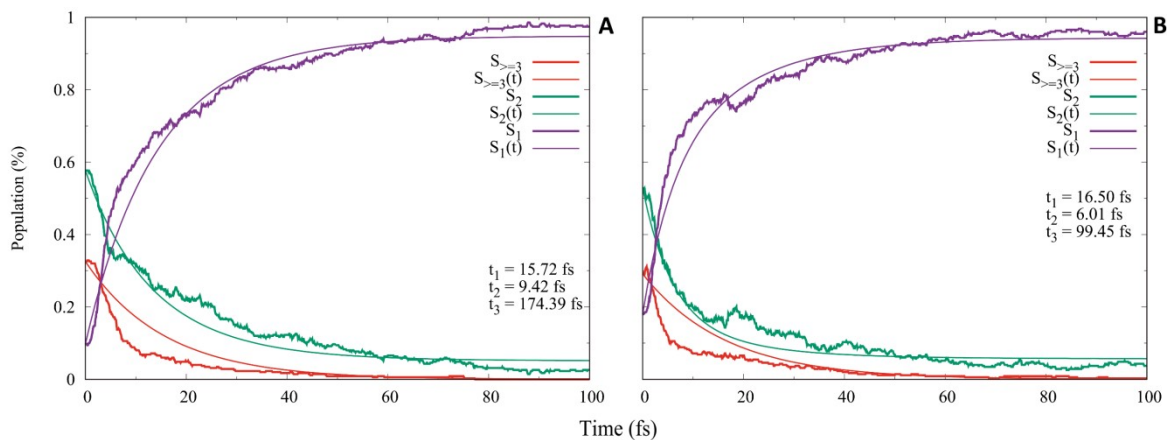


Fig. S 2 Excited states population decay (thick lines) and fitting (thin lines), according to the kinetic model  $S_{\geq 3} \xrightarrow{k_1} S_2 \xrightleftharpoons[k_3]{k_2} S_1$  for A) C(dSSB)<sub>4</sub> and B) Ad(BuSSB)<sub>4</sub>.  $\tau$  are defined as  $1/k$ .

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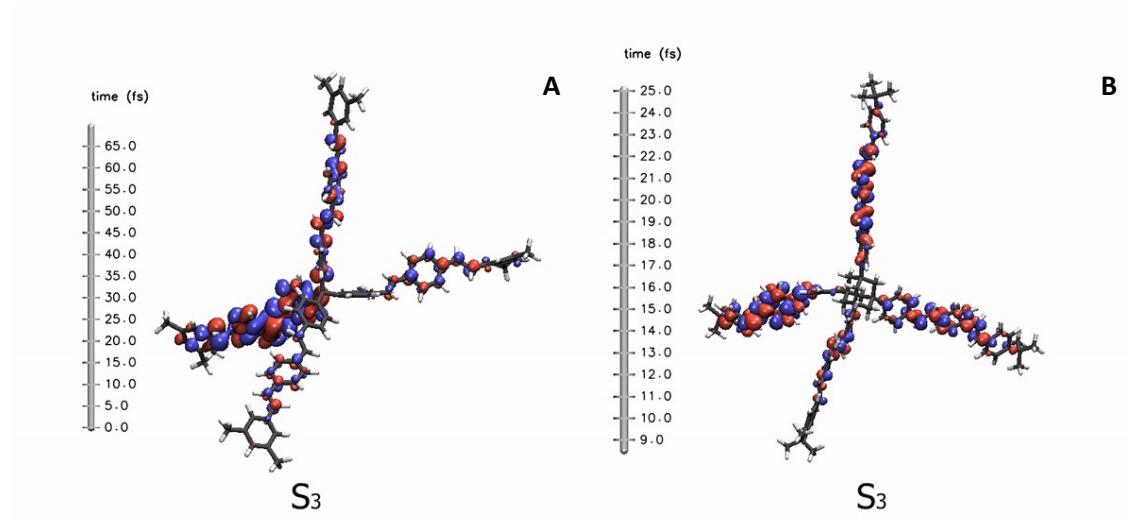


Figure S 3. Time-dependent exciton localization for one geometry of A) c(dSSB)<sub>4</sub> and B) Ad(BuSSB)<sub>4</sub>, as the systems evolve from  $S_3 \rightarrow S_2 \rightarrow S_1$ .