## **Supporting Information**

## Controlling the lateral aggregation of perfluoroalkylated hexa-peri-hexabenzocoronenes

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**Figure S1:** Micrographs obtained by cryo-SEM of HBC- $[(CH_2)_4(CF_2)_6F]_6$  (1a) nanostructures in a hexafluorbenzene solution (10<sup>-3</sup> M).



**Figure S2:** Micrographs obtained by cryo-SEM of HBC- $[(CH_2)_4(CF_2)_6F]_6$  (1a) nanostructures in a benzotrifluoride solution (10<sup>-5</sup> M).



**Figure S3:** Micrographs obtained by cryo-SEM of HBC- $[(CH_2)_4(CF_2)_6F]_6$  (**1a**) nanostructures in a BTF solution (10<sup>-6</sup> M).



**Figure S4:** Micrographs obtained by SEM of HBC- $[(CH_2)_4(CF_2)_6F]_6$  (1a) nanostructures of a trichlorobenzene solution (10<sup>-7</sup> M).



**Figure S5:** Micrographs obtained by cryo-SEM of HBC- $[(CH_2)_4(CF_2)_8F]_6$  (1b) nanostructures in trichlorobenzene.



Figure S6: XRD pattern of HBC 2 at various temperatures

Figure S7: DSC trace of HBC 1a