

Liquid-Crystalline Dendrimers : Versatile Synthetic Platforms for the Design of Supramolecular Functional Materials

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Convergent-type dendrimers are interesting macromolecules which possess a well-defined structure. Furthermore, their size, shape and functionality can be modulated by synthesis, generation by generation.

We have demonstrated that grafting liquid-crystalline dendrimers onto various active or reactive three dimensional architectures, including fullerene,¹ fullerene-ferrocene² and dinuclear ruthenium complexes,³ is an effective and elegant way to control the mesomorphic behavior of the materials and the structure of the mesophases.

We discuss, here, the structure-supramolecular organization relationship for the above-mentioned materials. One example is presented below (Tg: not detected, Col_r 99 Col_r 150 Col_h 157 I).

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- (2) S. Campidelli, M. Séverac, D. Scanu, R. Deschenaux, E. Vázquez, D. Milic, M. Prato, M. Carano, M. Marcaccio, F. Paolucci, G. M. Aminur Rahman and D. M. Guldi, *J. Mater. Chem.* **2008**, *18*, 1504.
- (3) S. Frein, M. Auzias, A. Sondenecker, L. Vieille-Petit, B. Guintchin, N. Maringa, G. Süß-Fink, J. Barberá and R. Deschenaux, *Chem. Mater.* **2008**, *20*, 1340.

