

Supramolecular Functional Liquid Crystals for the Next Generation of Materials

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New functional liquid crystals are presented. We have developed nanostructured liquid crystals that serve as materials for transport of ion and charges, water treatment membranes, and stimuli-responsive materials. Control of supramolecular and self-assembled structures as well as design of chemical structures of molecules is key for their functional design. Bio-inspired inorganic/organic liquid crystal materials are also described as environmental friendly functional materials.