

# Liquid crystalline derivatives of $\pi$ -delocalized radicals

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Open-shell organic systems are becoming increasingly important structural elements of advanced materials for spintronics, memory and energy storage, photomagnetic devices, and energy harvesting. In this context, we have been studying supramolecular assemblies of stable  $\pi$ -delocalized radicals and investigating fundamental chemistry of these radicals and extensive structure-property relationships of the resulting materials. Recently, we focused on the verdazyl and benzo[1,2,4]triazinyl systems which upon substitution with appropriate elongated or wedge-shaped groups give anisometric bent-core or disk-like derivatives that exhibit banana or discotic phases, respectively.

Synthesis, liquid crystalline, optical, electrochemical, photovoltaic and magnetic results will be presented and discussed.

