Title:	Synthesis of electron- rich discotic liquid crystal
Authors:	Prakash, Abhinandan
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Abstract:	Organic material having aromaticity and π-π conjugation in them has gained popularity in last two decades due to their potential use in semiconductors. As compared to inorganic electronics, organic are low-cost manufacturing, light weight and flexible. When organic molecule undergoes self-assembly, they increase their energy and create a larger potential than a single molecule. Till now, Derivative of Tetrathiafulvalene(TTF) has shown high performance in semiconductors as potential charge transporters. It has S-S stacking in addition to π-π, increasing charge mobility in molecular electronic. However, the synthesis of such molecules required an several complex steps. Due to wide application of TTF derivative in organic materials, we have synthesized novel TTF-based discotic liquid crystal (DLC), which shows the liquid crystal properties at room temperature. This is achieved by coupling TTF with flexible alkyne chain using metal-based heck coupling the purity. Purity of final compound has been analysed using 1 H NMR (Nuclear Magnetic Resonance). Mesomorphic property has been investigated by Polarizing Optical Microscopy (POM) images.
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