Title:	Design, synthesis and inestigation of mesomorphic behaviour in unsmmetrical bent-core molecules
Authors:	Jadhav, Sachin Ishwarlal
Keywords:	synthesis mesomorphic behaviour bent-core molecules
Issue Date:	Apr-2022
Publisher:	IISER Mohali
Abstract:	Bent-core LCs (BLCs) are known to exhibit chiral superstructures and polarity in the mesophases despite the molecules being achiral. In this context, this thesis deals with the designing and synthesizing four phenyl ring-based bent-shaped liquid crystals (LCs) with varied alkyl chain (n = 8, 10, 12, 14, 16) at the long molecular arm to investigate their mesomorphic properties. The first chapter of the thesis is a brief introduction on LCs and their types, and importance of nematic phases of BLCs. The second chapter discusses the motivation of our work, followed by detailed synthesis of all the compounds. The synthetic procedures, and the structural characterizations of the compounds via different spectroscopic techniques, are elaborated. The thermal behaviour is further analysed for material properties. The chapter is rounded off with the conclusions and future outlook section.
URI:	http://hdl.handle.net/123456789/4251
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