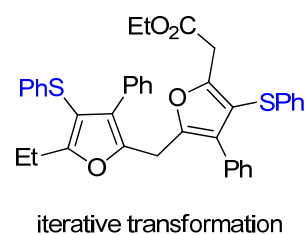
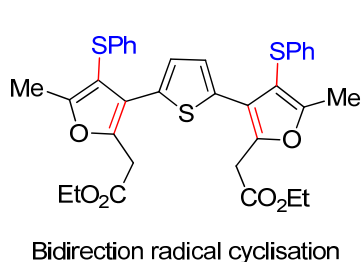
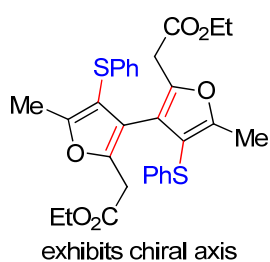
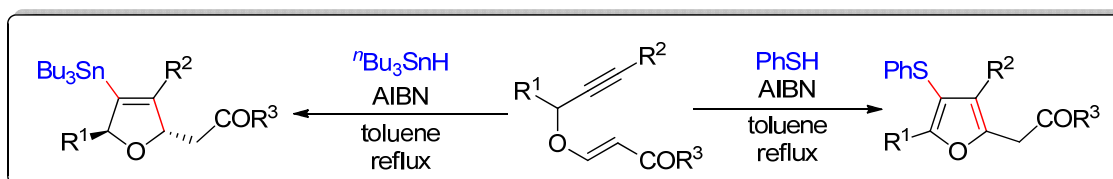


CASCADE RADICAL CYCLISATION ON ALKYNYL VINYLOGOUS CARBONATE FOR THE DIVERGENT SYNTHESIS OF TETRASUBSTITUTED FURANS AND DIHYDROFURANS

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Heterocycles such as furanoflavanoids, furanocoumarins, furanolactones consist of a densely substituted furan skeleton. Furans have proved to be an efficient synthon for the total synthesis of various natural products by transformations such as Piancatelli rearrangement, Ashmatowicz reaction as well as cycloaddition reactions.¹ Synthesis of highly substituted furans, initiated from simple, achievable starting materials under neutral conditions, with varied functionalities, is a challenge to date for organic chemists. A robust and efficient 5-*exo-trig* radical cascade cyclisation of propargyl vinylogous carbonates has been employed for the synthesis of tetrasubstituted furans and tetrasubstituted dihydrofurans. Addition of thiyl radical gives tetrasubstituted furans whereas, addition of tin radical gives tetrasubstituted dihydrofurans exclusively, further enhanced by displaying variability in all the four appendages. Various densely substituted multicyclic moieties have been obtained by either iterative strategy or by starting from the corresponding alkynyl vinylogous carbonates.



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