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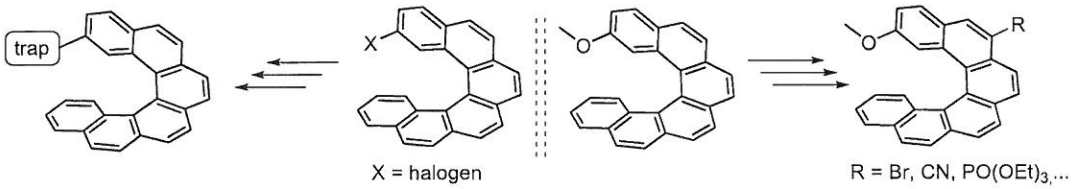
Helicenes are chiral polyaromatic compounds of great potential in many fields, such as asymmetric catalysis, optoelectronics, or material sciences [1]. The most commonly used methods of preparation of helicenes – photocyclization and [2+2+2] cycloaddition – can be both successfully used for incorporation of different functional groups into the helicene structure, however the scope of functional groups can be limited and/or requires time consuming multistep procedures [2]. This obst,acle can be overcome by derivatization of simple helicene derivatives. Several studies discussing late-stage derivatization of helicenes were published in the last few years [3,4].

This work is focused on the use of simple helicene derivatives as substrates for modern photochemical methods. Halogen containing substrates are transformed in the reductive pathway to helicenyl radicals, before being trapped by different radical traps. In the oxidative pathway, activated alkoxyhelicenes undergo photoredox catalyzed reactions, yielding various carbon-carbon, as well as carbon-heteroatom containing compounds (Scheme 1).

Scheme 1



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