

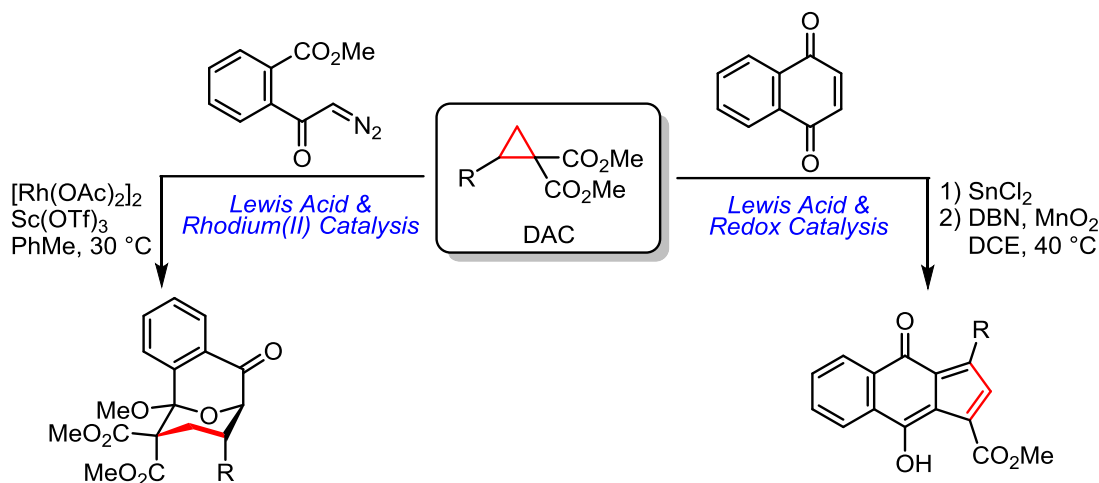
# Donor-acceptor cyclopropanes as unique building blocks for the synthesis of carbo- and heterocyclic compounds

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Donor-acceptor cyclopropanes (DACs) are highly strained entities which are unique building blocks for hetero- and carbocyclic systems [1,2]. For the last decade, we have been developing novel methodologies starting from these type of three-membered rings leading to oligopyrroles, chalcogen-containing heterocycles, and 1,3-bisfunctionalized products [3], just to name a few. To get deeper insights into their intrinsic reactivity in-depth physical organic studies were performed recently [4].

Besides the common activation of DACs by Lewis acids even a synergistic catalytic approach can be applied to generate fleeting intermediates to react with the strained systems. Two examples, one using Lewis acid and Rh catalysis (affording intermediate carbonyl ylides) [5] and another using Lewis acid and redox catalysis are presented [6]. In the former example highly substituted pyranes are generated, in the latter unusual fulvene-type dyes.



*This work was supported by the European Union (ERC Consolidator Grant to D.B.W.).*

## References

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