

Catalytic Asymmetric Halogenations and Their Synthetic Applications

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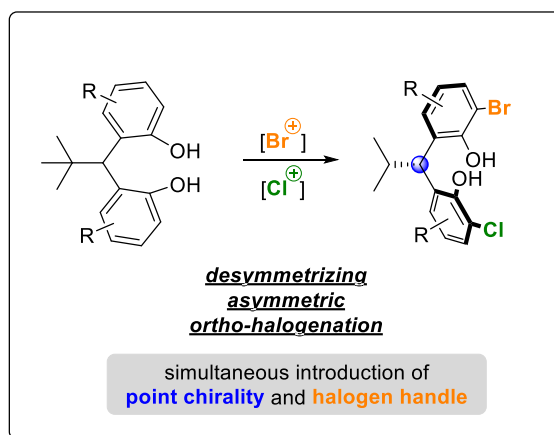
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Halogenation is an important class of organic transformation. Over the past decades, reactions including cohalogenation, haloetherification, halolactonization and polyene cyclization are well documented. These reactions have been applied in the synthesis of many natural products and drug molecules. One of the research focuses in our research group is on the development of novel bromination reactions using *N*-bromosuccinimide (NBS), which is an easy handle and inexpensive halogen source.^[1] Recently, we have developed chiral chalcogen catalysts in various asymmetric halogenation reactions.^[2-4] Various useful building blocks such as bisphenols and spirolactones were prepared with good yields and ees. In this lecture, our recent progress in the development of organocatalytic and highly diastereoselective and enantioselective bromination reactions will be presented.^[5-7]



References

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