

Monofluorinated One Carbon Synthons

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Organofluorine compounds are scarce in nature, yet human expertise in chemical synthesis enables the creation of such entities. The incorporation of fluorine into target structures often enhances the properties of pharmaceutical drugs, agrochemicals, and advanced materials. Notably, nearly quarter of marketed drug molecules feature at least one fluorine atom in their chemical structure, and over the past two decades, nearly half of newly introduced agrochemicals have been organofluorine compounds. As a result, the reliance on organofluorine compounds is expected to intensify in the future for healthcare and food supply. Addressing these forthcoming challenges necessitates innovative strategies for synthesizing fluorinated organic molecules. This presentation will unveil recent advancements in the monofluorinated one-carbon synthon strategy for constructing organofluorine compounds.

