

Catalytic Conjugate Addition of Acyl Anion Equivalents Promoted by Fluorodesilylation

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The conjugate addition of acyl anion equivalents derived from 2-silyl-1,3-dithianes to α,β -unsaturated ketones and esters has been achieved using a substoichiometric amount of tetrabutylammonium fluoride (TBAF). High yields and short reaction times are observed for the addition of aryl 1,3-dithianes to a variety of cyclic and acyclic α,β -unsaturated carbonyl acceptors. Demonstrated scope is complementary to established methods to synthesize 1,4-dicarbonyl compounds. Observation of the reactive anion by ^{13}C NMR and extension to an asymmetric variant has also been studied.

