

LEWIS ACID-INDUCED ENE CARBOCYCLIZATION TO BICYCLIC COMPOUNDS BEARING A CF₃ GROUP

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Lewis acid-ene cyclization of ω -olefinic trifluoromethyl ketones provides trifluoromethyldecalins and trifluoromethylhydrindans in high yields. Similar reactions were performed successfully with the corresponding β -keto esters.

The resulting tertiary alcohol-Lewis acid complexes are stable because the strong electronegativity of CF₃ group prevents any solvolysis or elimination. Indeed, unlike reactions with non-fluorinated parent compounds, a wide variety of Lewis acids can be used for the cyclization of unsaturated trifluoromethyl ketones.

