

# CYCLOADDITION OF DIENES AND NITRONES WITH DI- AND TRISUBSTITUTED CF<sub>3</sub>-ETHYLENIC COMPOUNDS

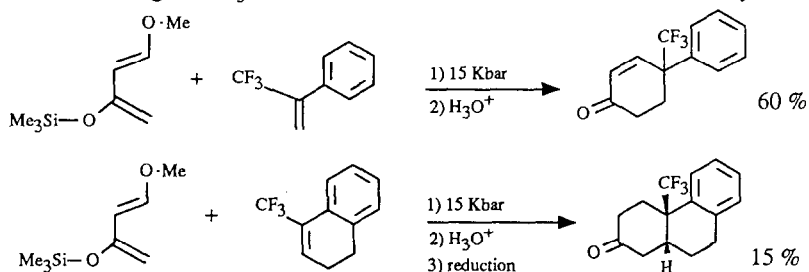
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Cycloaddition of dienes and nitrones with di- and trisubstituted CF<sub>3</sub>-ethylenic compounds has been investigated and compared with non-fluorinated parent compounds:

**1) Diels-Alder reaction:** In spite of the presence of the  $\sigma$ -electron-withdrawing group CF<sub>3</sub>, a highly reactive diene and a high pressure were necessary to perform the reaction. A tricyclic compound with an angular CF<sub>3</sub> can be obtained from a trisubstituted trifluoromethyloctalin.



**2) Nitron 1-3 dipolar cycloaddition:** With phenylnitron in usual thermic conditions, disubstituted olefins or ethyl trifluoroacetoacetate (trisubstituted enolic double bond) led in good yield to isoxazolidines. Reaction failed in the case of alkyl trisubstituted ethylenic compounds.

