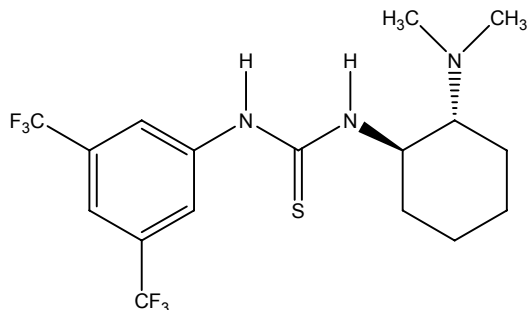


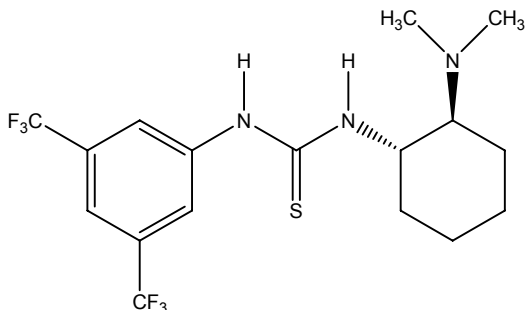


# TUC Ligands for Michael additions and hydrazination

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07-0283



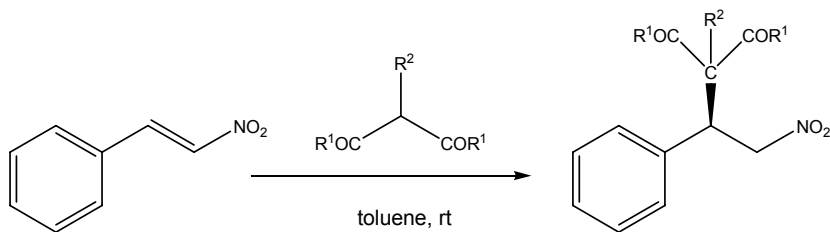
07-0284

Sold in collaboration with Sumitomo for research purposes only. Patents PCT Application No.: JP2004009350 (publication WO2005000803) US Application 10/562,579, EPC Application 04746819.4

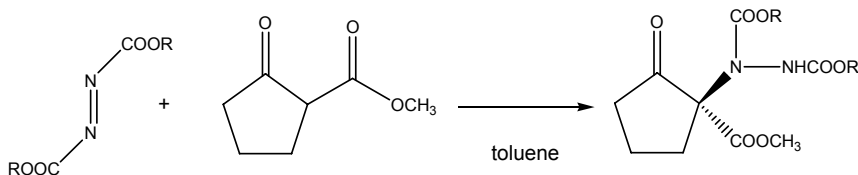
07-0283 1-[3,5-Bis(trifluoromethyl)phenyl]-3-[(1R,2R)-(-)-2-(dimethylamino)cyclohexyl]thiourea (R,R-TUC) [620960-26-1] 250mg  
C<sub>17</sub>H<sub>21</sub>F<sub>6</sub>N<sub>3</sub>S; FW: 413.42; white powdr.; m.p. 87-88°; [α]<sub>D</sub> -42° (c 1.05, CHCl<sub>3</sub>) 1g

Technical Notes:

1. Thiourea catalyst used in the enantio and diastereoselective Michael addition of malonates and ketoesters to nitroolefins.



2. Thiourea catalyst used in the enantioselective hydrazination of 1,3-dicarbonyl compounds.



R= t-Bu, i-Bu, Bn, Et

References:

1. *J. Am. Chem. Soc.*, **2005**, 127, 119.
2. *Synlett*, **2006**, 1, 137.

07-0284 1-[3,5-Bis(trifluoromethyl)phenyl]-3-[(1S,2S)-(+)-2-(dimethylamino)cyclohexyl]thiourea (S,S-TUC) [851477-20-8] 250mg  
C<sub>17</sub>H<sub>21</sub>F<sub>6</sub>N<sub>3</sub>S; FW: 413.42; white powdr.; m.p. 87-88°; [α]<sub>D</sub> +42° (c 1.16, CHCl<sub>3</sub>) 1g

Technical Note:

1. See 07-0273.

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