Some interesting examples of Lanthanide chemistry

1. SmI₂
2. CAN

1. CAN 10 mol% NaBrO₃

2. CAN 10 mol% NaBrO₃, 80 °C

MeOH, rt

MeOH, H₂O, -15 °C
PhCOCHO + MeO-PhNH₂ + C₅H₄ → Yb(OTf)₃

PhN₃ + C₅H₄CH≡CH → Sm(N(TMS₂)₃ (5 mol%) + BnNH₂ (10 mol%)

OMe OMe + CO-Ph → Yb(fod)₃

OMe OMe + CO-Ph → Yb(fod)₃

BnO(CH₂)₅CH₂CH₂CH₂CH₂CH₂CHO → Yb(fod)₃

toluene, Δ

HO O O Sm(Hg), ICH₂Cl

PhS O Me + PhCH=CHPh + PhNH₂ → CeCl₃·7H₂O-NaI

EtOH-H₂O

PhN-CH≡CH + PhC≡Ph → Lu(N(TMS₂)₃)

Toluene, 120 °C

O CO₂Me + 2 SmI₂
Primary alcohols show limited oxidizability with CAN

when alcohol is in down position, 1,5 H-abstraction can take place


Cerium catalyses acetal formation with aldehyde in alcohol media

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