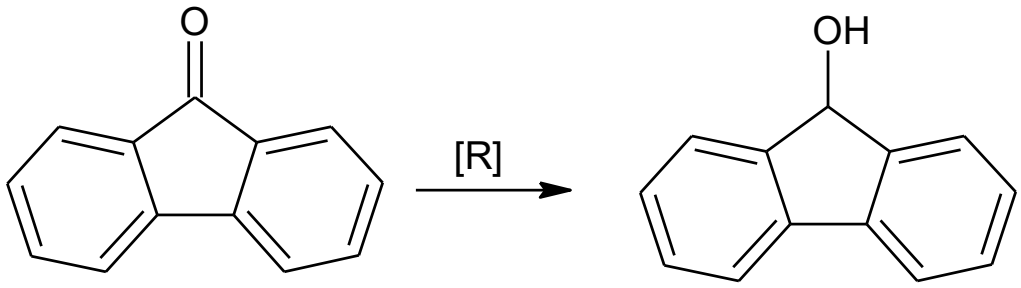
Reduction of 9-Fluorenone

220C

10/22/26

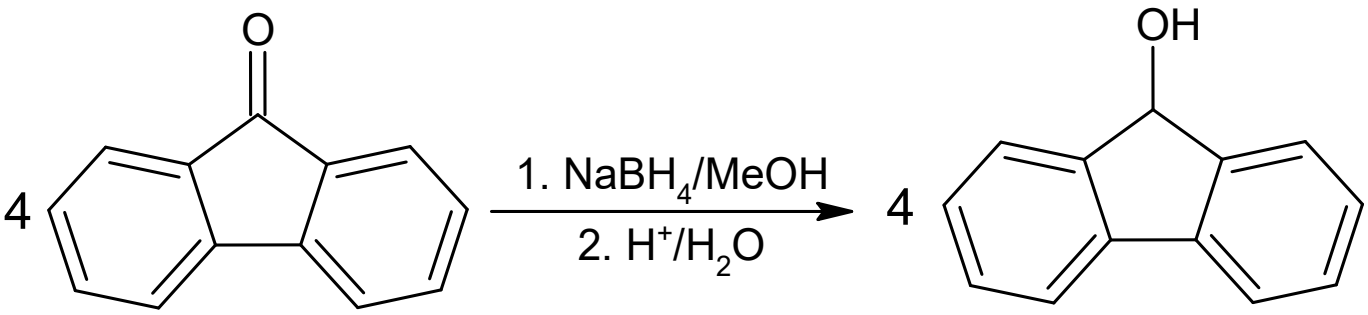


1. Catalytic hydrogenation
   Ni, H_2
2. Reducing agents
   Hydride

$LiAlH_4$ $NaBH_4$ $H:^{\ominus}$

$H^{\oplus}$

methanol
CH_3OH

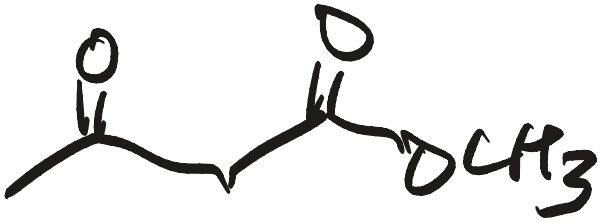


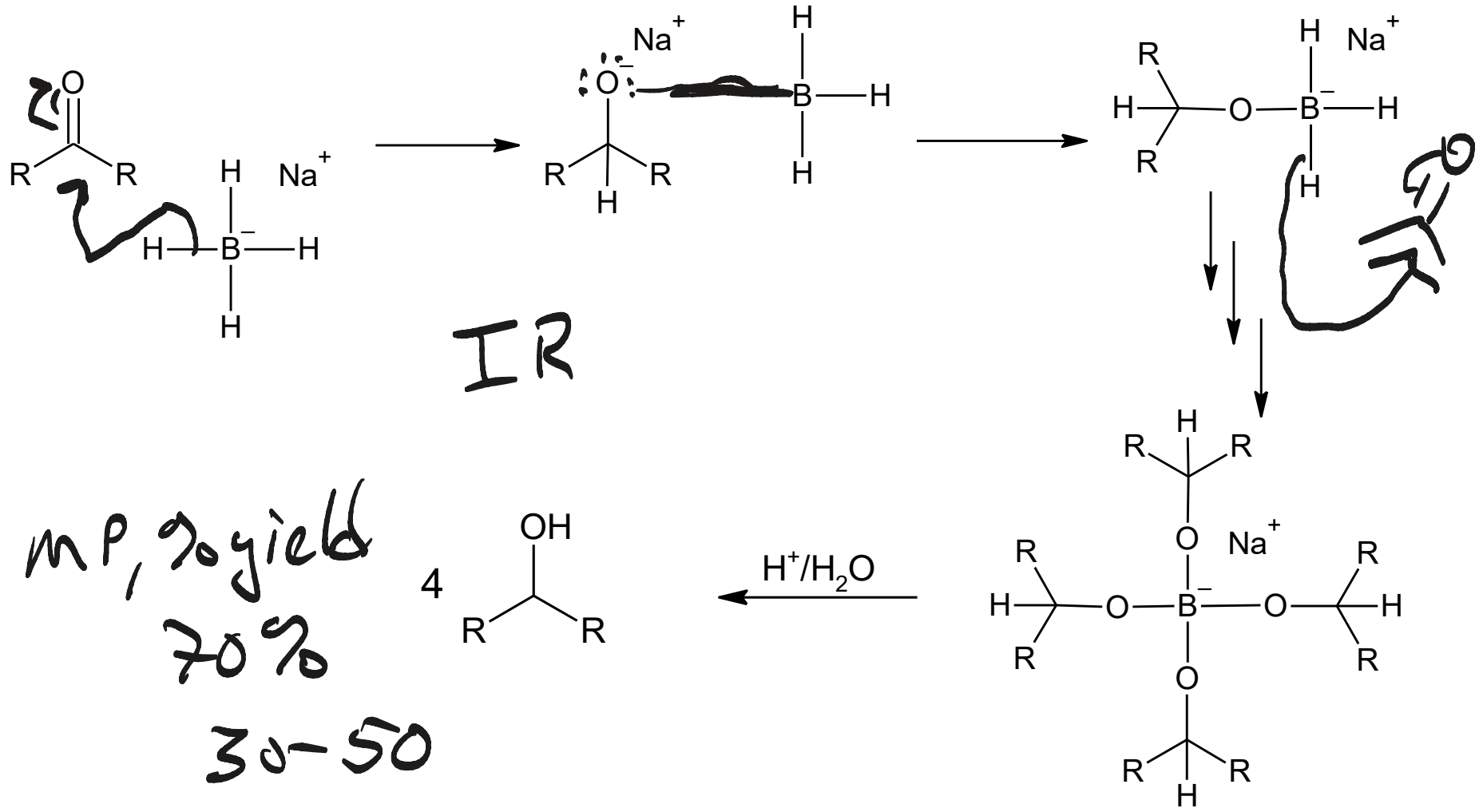
No C=O

Comparison of Electronegativity Differences of Hydride Reducing Agents

Hydride Reducing Agent	Metal Electronegativity	Difference with Hydrogen*
LiH	0.98	1.1
CaH_2	1.0	1.1
$LiAlH_4$	1.5	0.6
$NaBH_4$	2.0	0.1

* Hydrogen Electronegativity is 2.1




IR
mp, % yield
70%
30-50
4
H^+/H_2O