

ORGANIC CHEMISTRY 2 LECTURE GUIDE 2019

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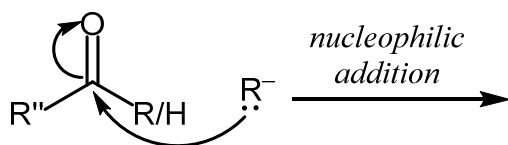
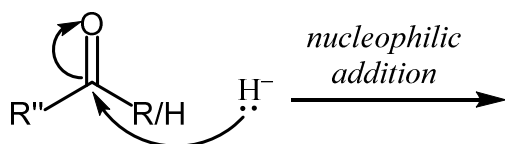
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Lesson VI.5. Addition of Organometallics/Metal Hydrides to Aldehydes/Ketones

Type A Reaction

Carbonyls can undergo **nucleophilic addition** with metal hydrides, RMgX or RLi :



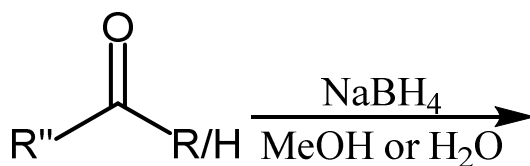
Notes

Aldehydes and Ketones do the same reactions as one another throughout the course!

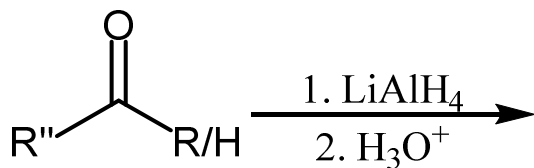
Lesson VI.5. Carbonyl Reaction Type A: Nucleophilic Addition of Organometallics and Metal Hydrides

Metal hydride reactions with ketones and aldehydes

The metal hydrides will do Type A reactions with aldehydes and ketones to give alcohols. These are **reduction** reactions.



(A)



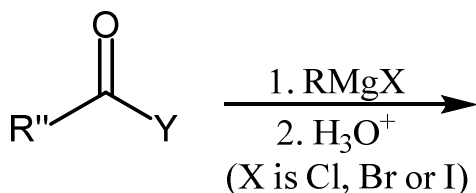
(B)

Notes

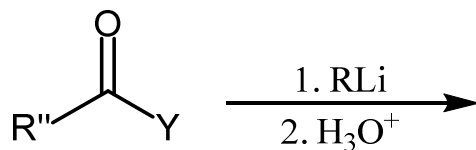
Lesson VI.5. Carbonyl Reaction Type A: Nucleophilic Addition of Organometallics and Metal Hydrides

Organometallic reactions with ketones and aldehydes

The Grignard reagents and organolithium reagents will do Type A reactions with aldehydes and ketones. Gilman reagents do **not** do nucleophilic addition to ketones or aldehydes.



(A)



(B)

Notes