

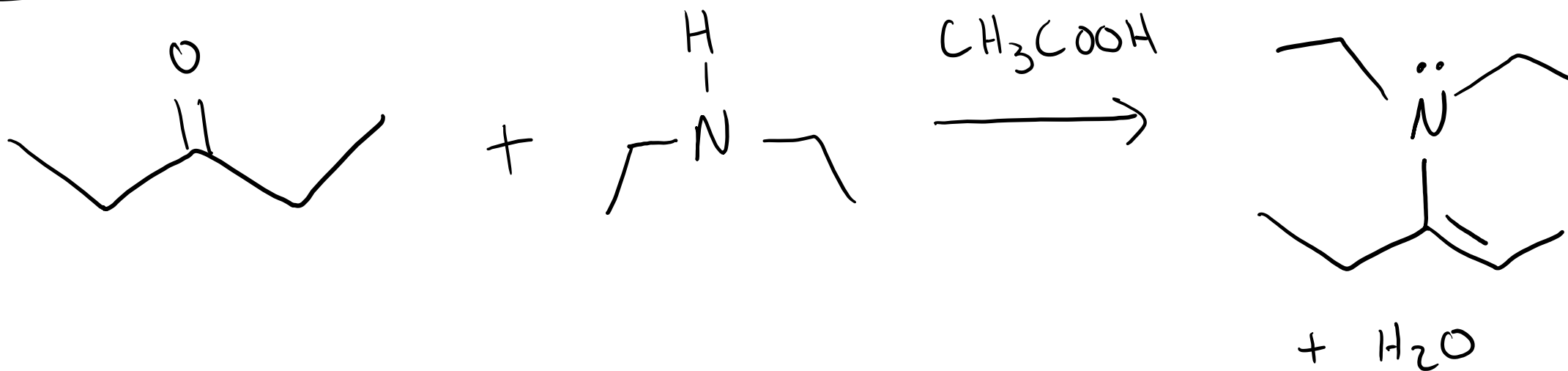
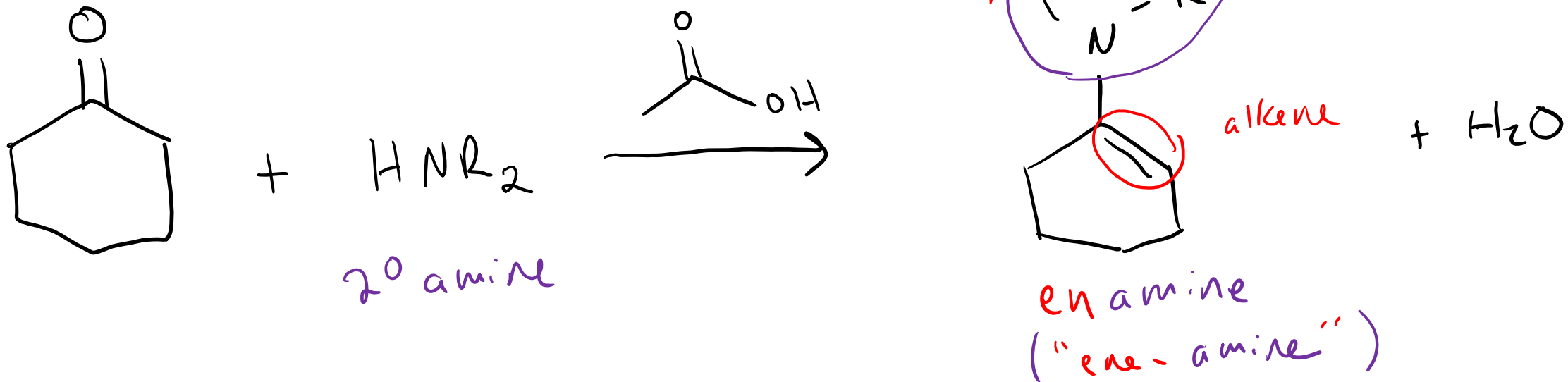
Enamine formation



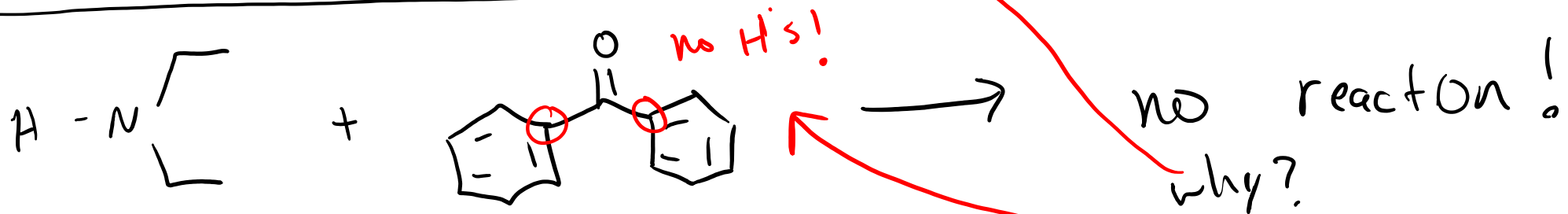
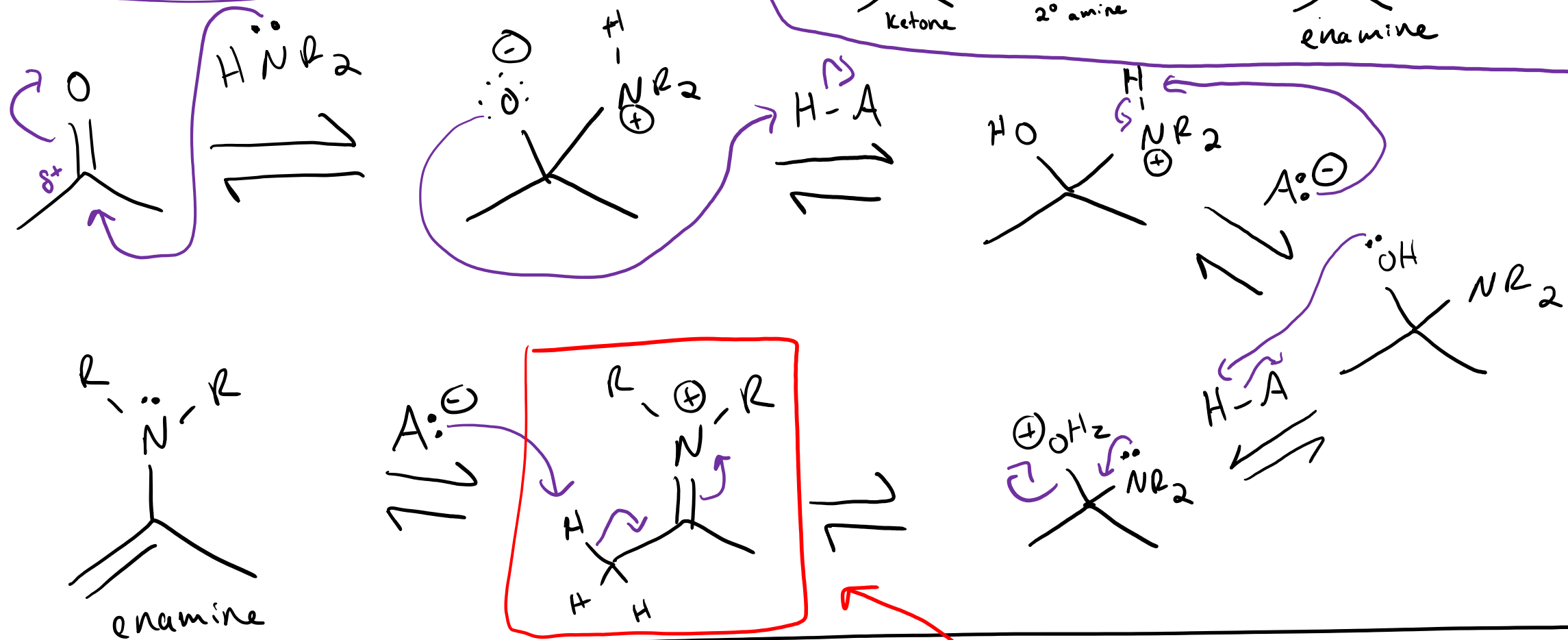
Hydrolysis of Acetals/Imines/Enamines –
Reversing this week's reactions

2/8/2023

2° Amine Nucleophiles

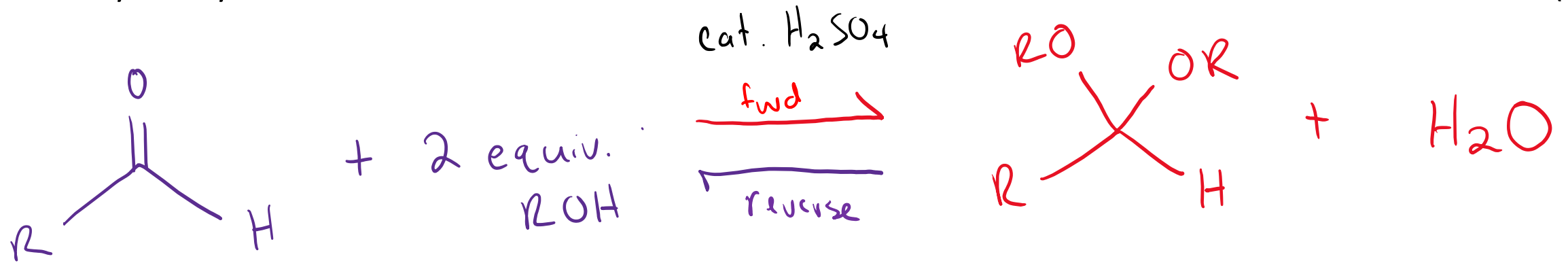


Enamine Formation: Mechanism



Hydrolysis of Acetals

(19.7)



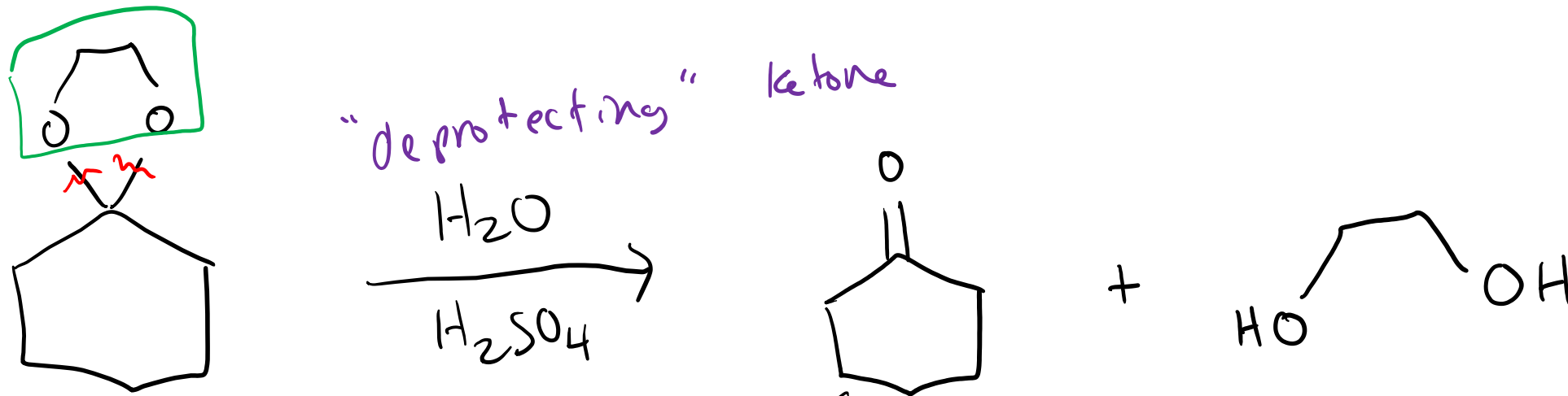
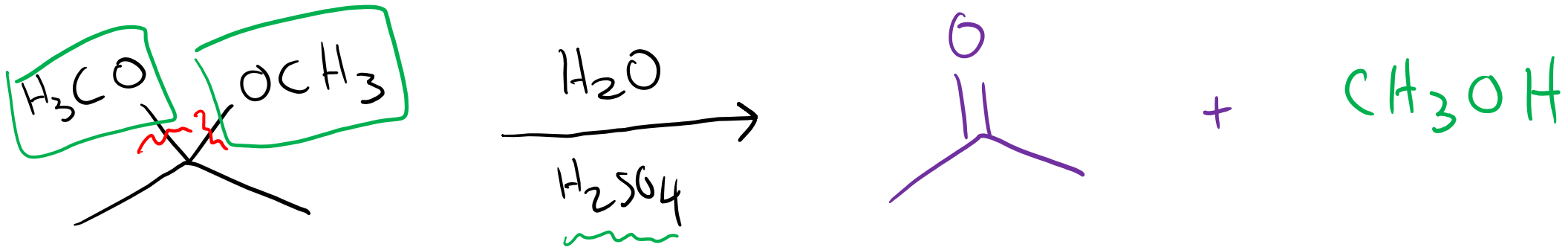
How to favor **fwd** vs **reverse** reaction @ equilibrium?
Le Chatelier's principle!

To favor reactants
use excess of **H₂O**

remove ROH as it forms (or $\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{H}$)

To favor products
use excess ROH
remove H₂O as it forms
(Dean-Stark trap)

Hydrolysis of Acetals

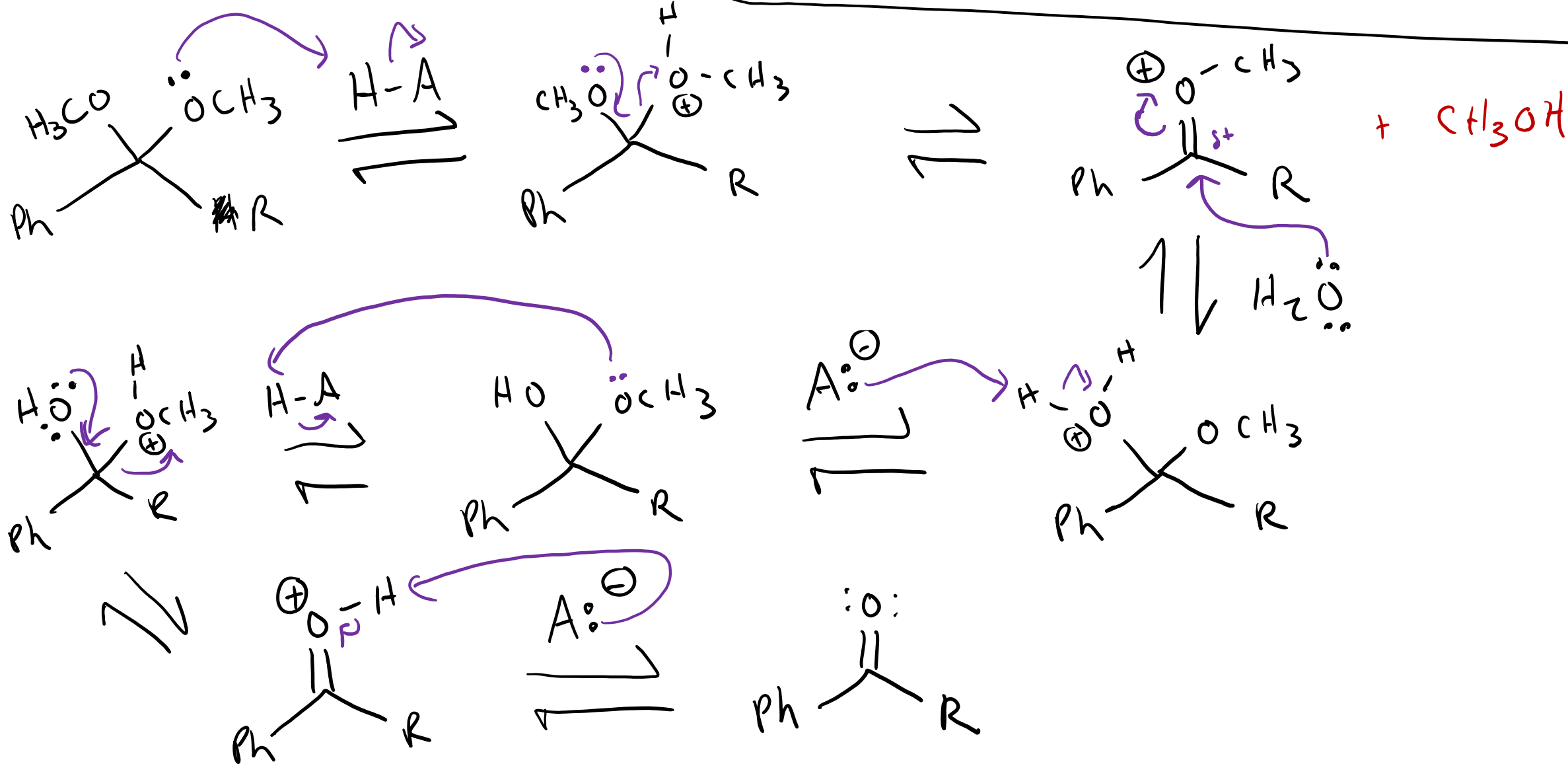
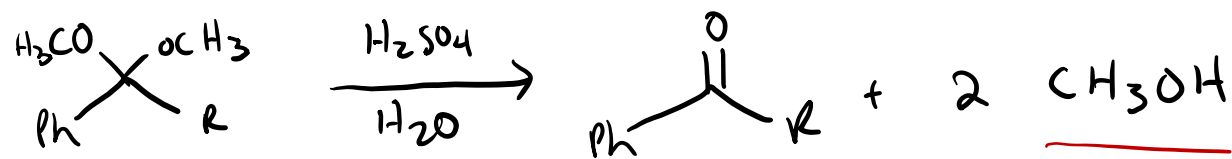


"protecting"
ketone

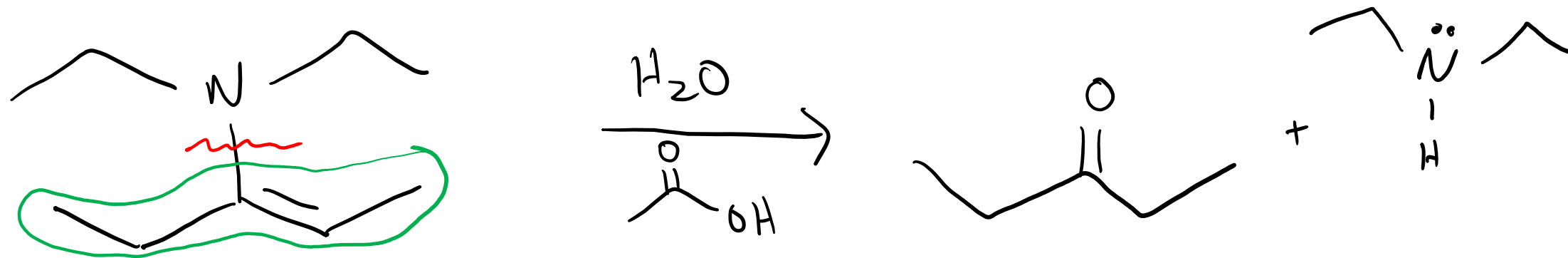
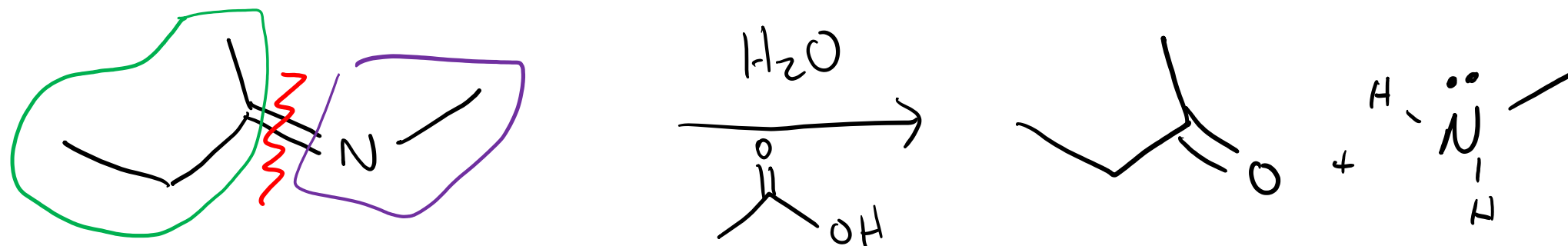
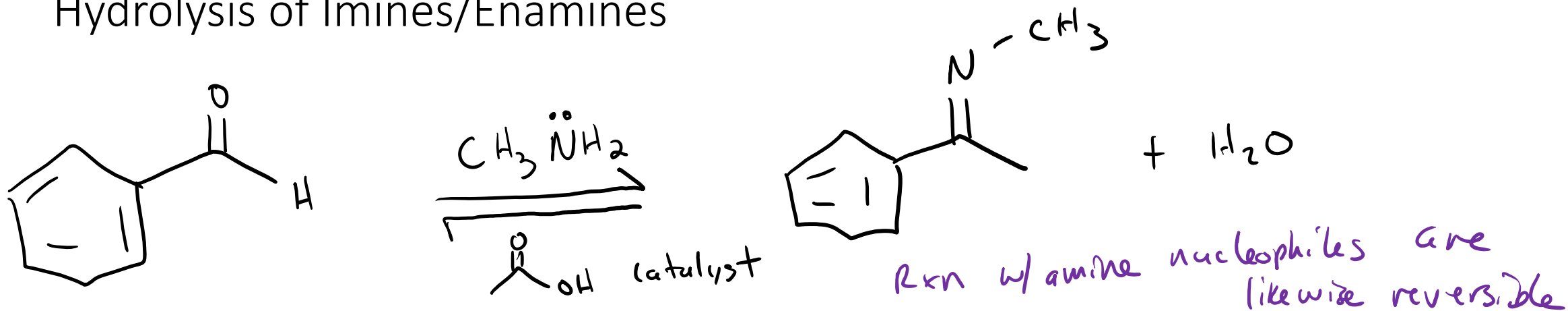
"deprotecting" ketone

END OF QUIZ MATERIAL

Hydrolysis of Acetals: Mechanism



Hydrolysis of Imines/Enamines



Hydrolysis of Imines: Mechanism

