(20) **Today**

Chap 21.3: Reactions of Carboxylic Acids
Chap 21.4: Reactions of Acid Halides
Chap 21.6: Reactions of Esters

Next Class (21)

Chap 21.6: Reactions of Esters
Chap 21.7: Reactions of Amides

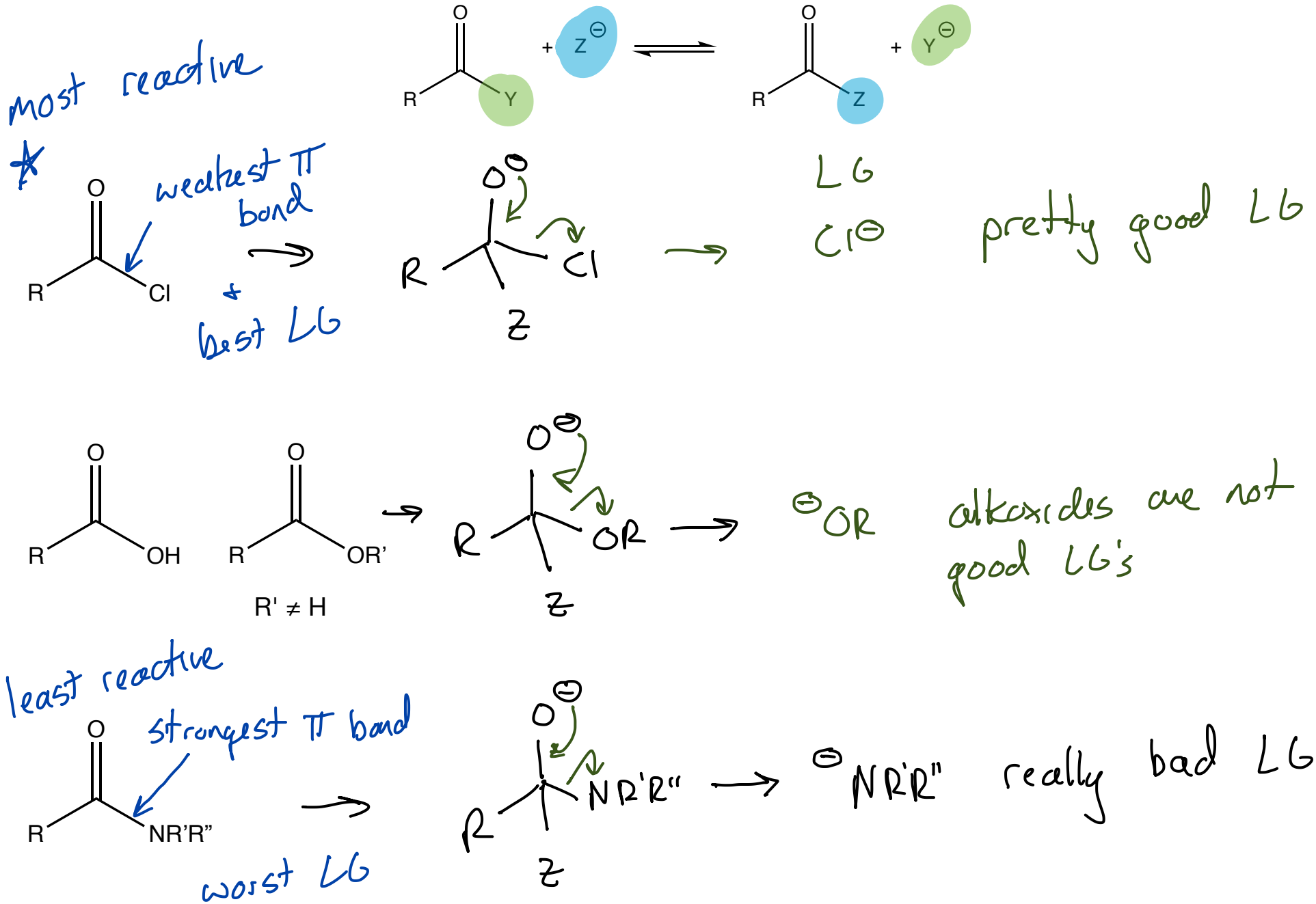
Chap 10.6: Grignard Reagents
Chap 19: Aldehydes and Ketones

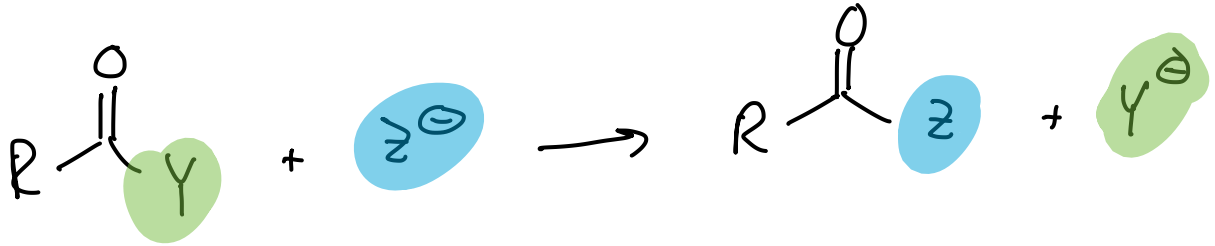
(22) **Second Class from Today**

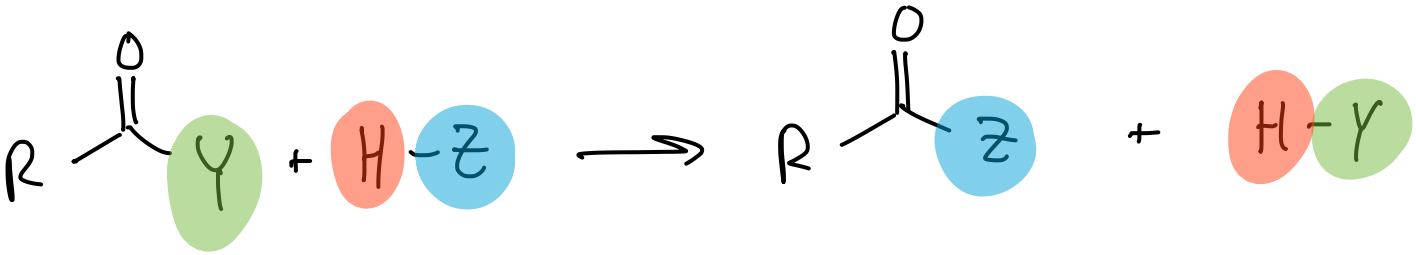
Test 2: MS, IR, and NMR and 21.1-21.2

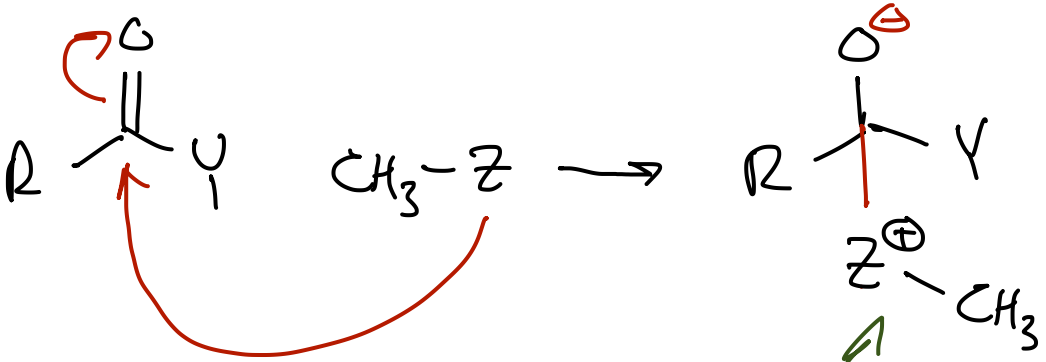
Third Class from Today (23)

Chap 19: Aldehydes and Ketones

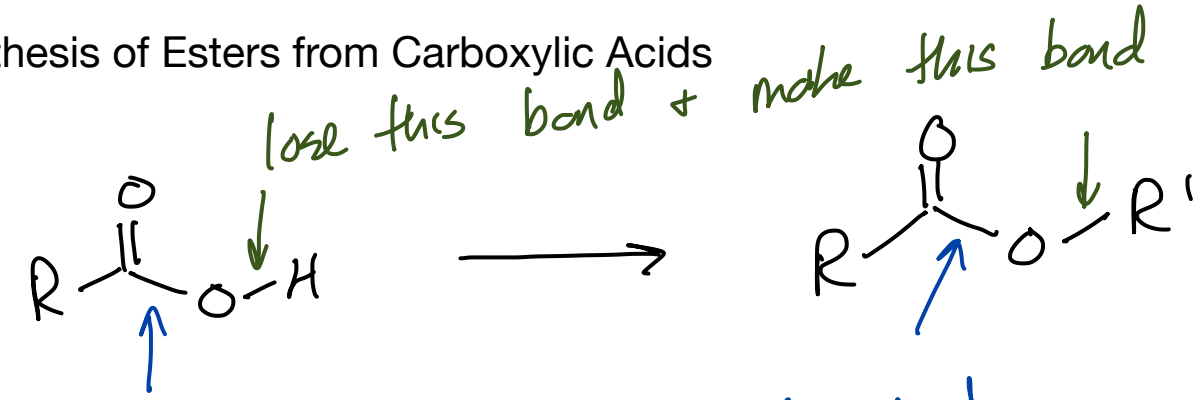

most reactive
weakest π bond
best LG
LG
Cl⊖
pretty good LG
alkoxides are not good LG's
R' ≠ H
least reactive
strongest π bond
worst LG
really bad LG

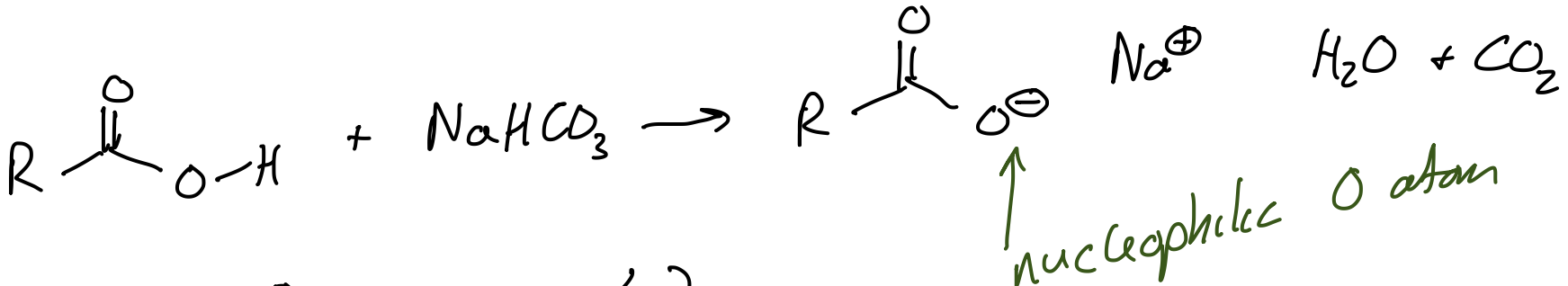


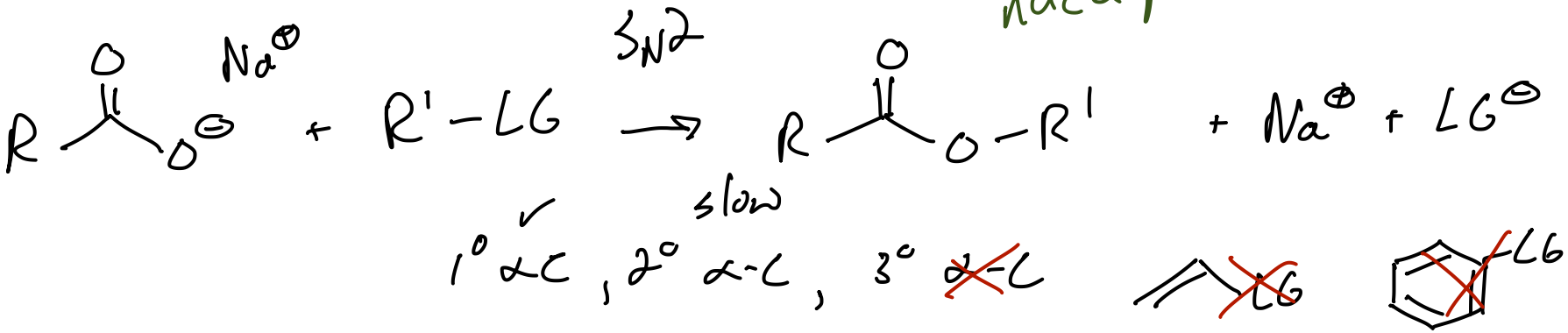




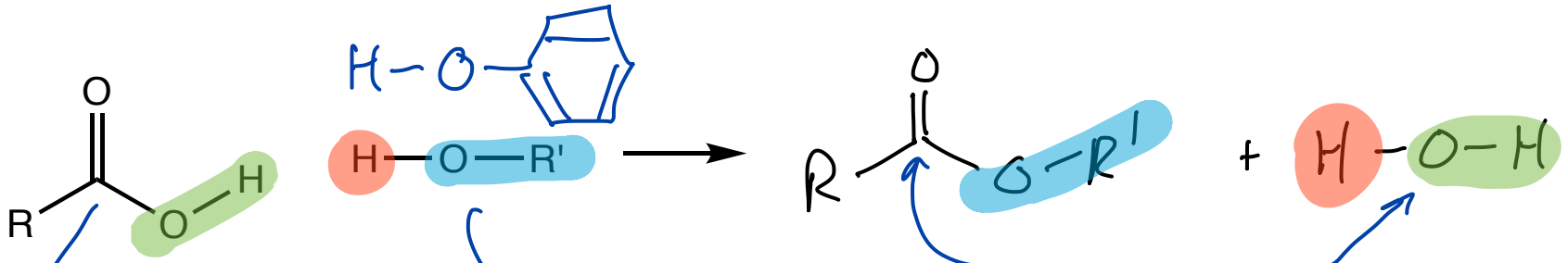
no H^+ to lose ∴ so this Z is not a good lv







this method would be a nucleophilic acyl sub



R = H, CH_3, CH_2CH_3, etc.

R' ≠ H, R' = CH_3, CH_2CH_3, etc.

nucleophile is O with 2 pair lp e's + an H to lose

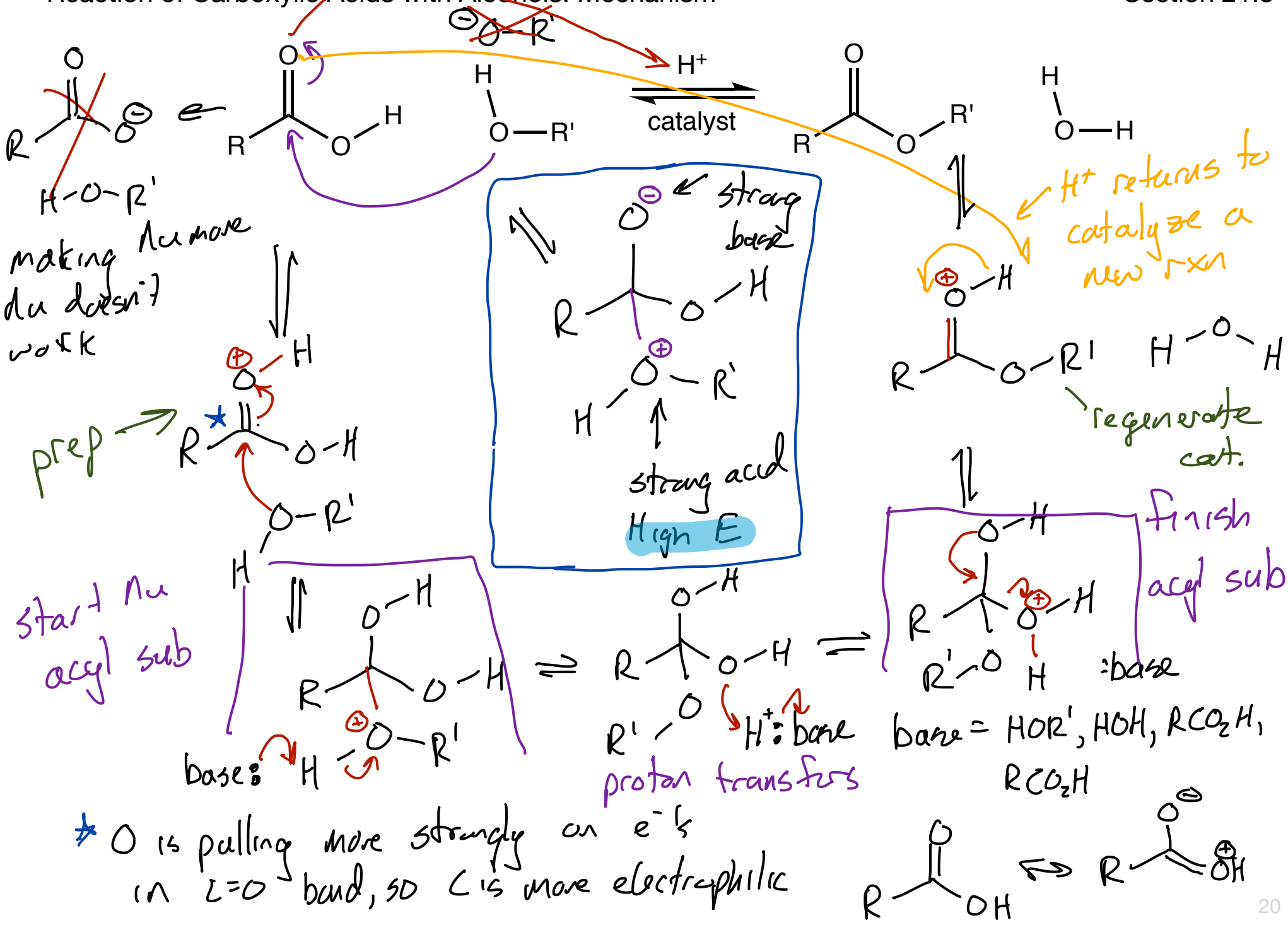
electrophilic C of C=O with O next to it

electrophilic C of C=O with O next to it

reactivity of reactants + products are extremely similar so K ~1 .... use Le Châtlier's Principal to push the rxn toward the products.

slow equilibrium rxn

Speed up rxn by making Nu more Nu or electrophile more electrophilic?



Practice: Reactions of Carboxylic Acids