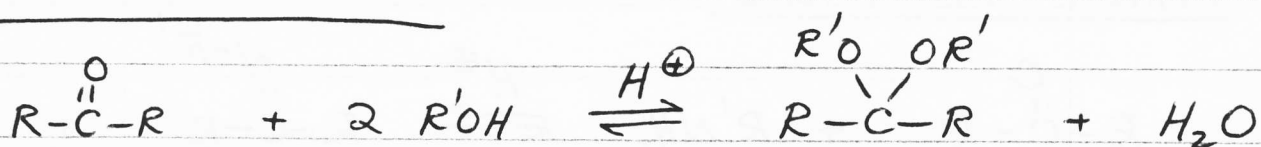
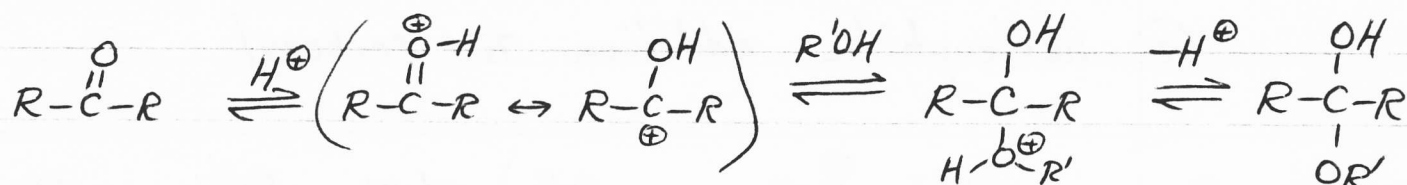


Acetals + Ketals

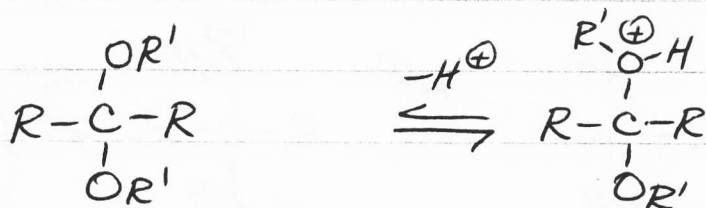
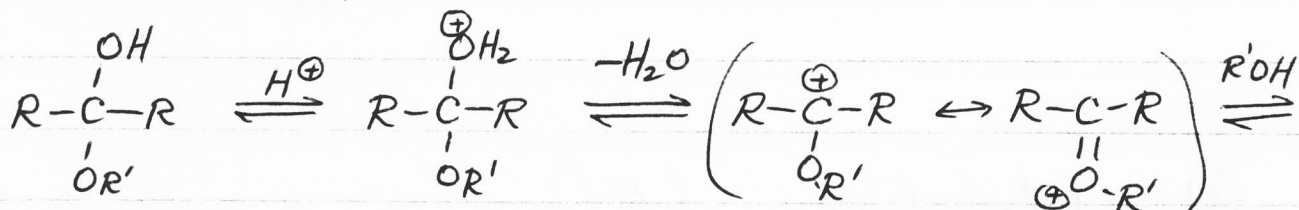


mechanism (acid-catalyzed):

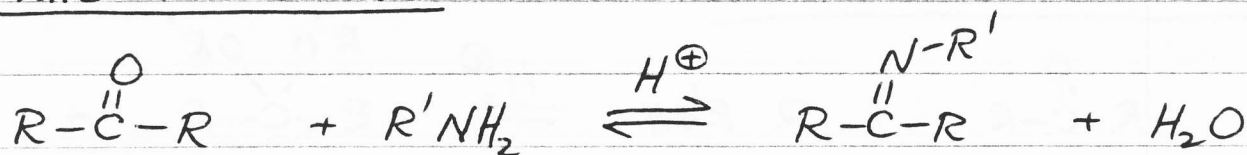
(a) nucleophilic addition to carbonyl



(b) nucleophilic substitution (S_N1)

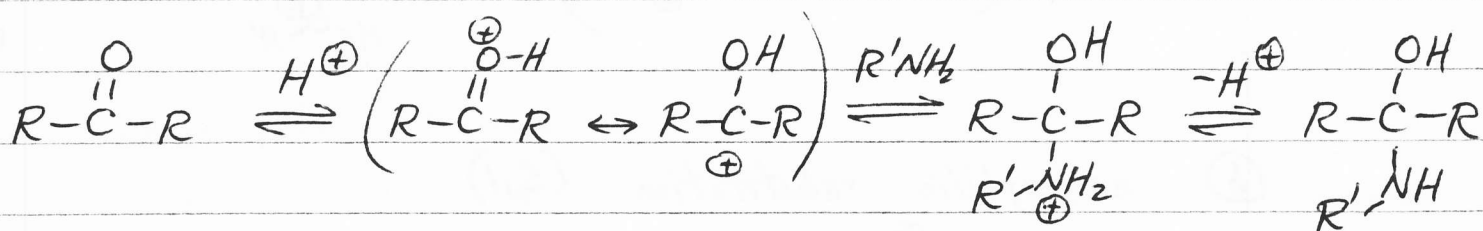


Amine Additions



mechanism (acid-catalyzed):

(a) nucleophilic addition to carbonyl



(b) dehydration (E1)

