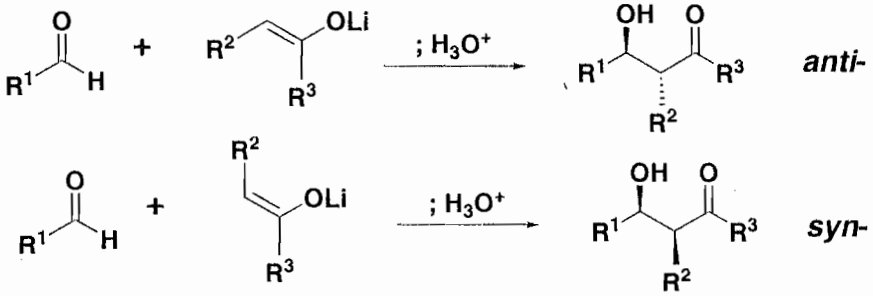
淡江大學98學年度碩士班招生考試試題

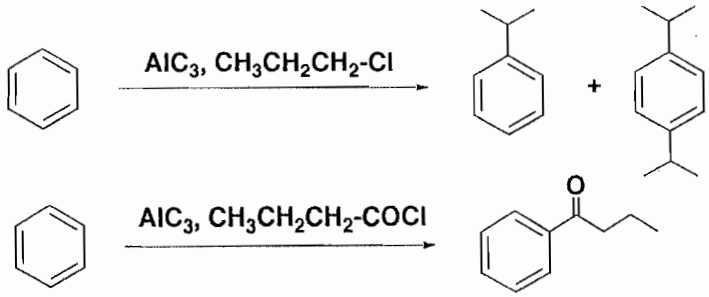
系別：化學學系(化學組、生科組)　　科目：有　機　化　學

本試題共 2 頁，9 大題

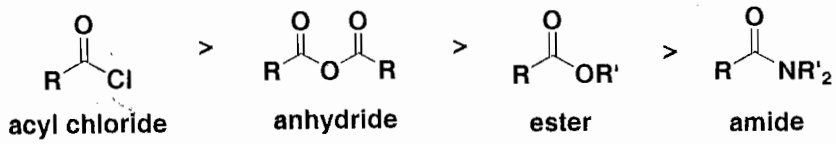
1. Explain the stereochemistry of these Aldol-type reactions. (10pts)



2. Why polyalkylation and rearrangement product is obtained for Friedel-Crafts alkylation reaction whereas Friedel-Crafts acylation reaction does not observe? (10pts)

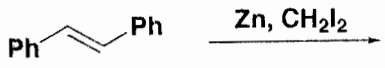


3. Explain the relative reactivities of these carboxylic acid derivatives under nucleophilic substitution reaction conditions. (10pts)

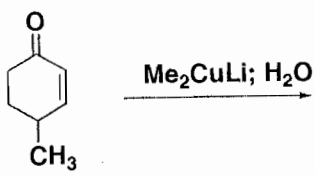


4. Provide the major product with stereochemistry of these reactions. (20pts, 5pts each)

(a)

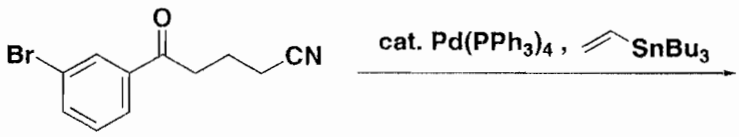


(b)

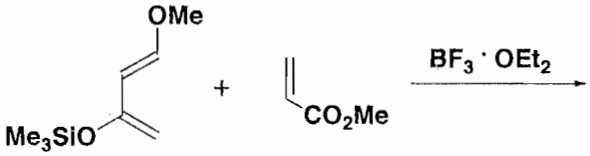


注意背面尚有試題

(c)

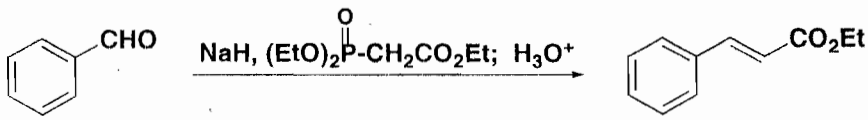


(d)

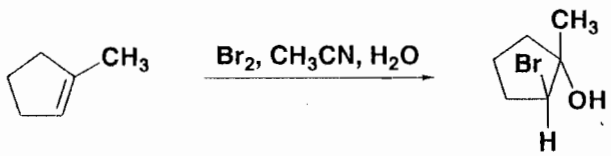


Suggest the reasonable mechanisms with arrows shown for the electron movements of 5 to 9 questions. (10pts each)

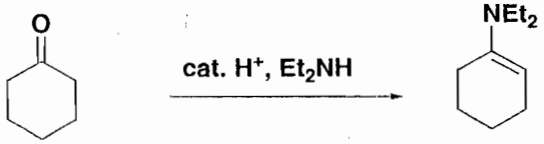
5.



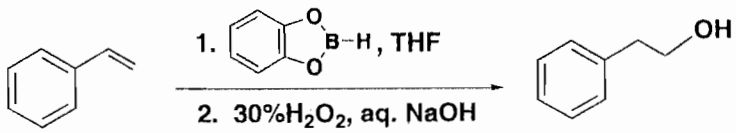
6.



7.



8.



9.