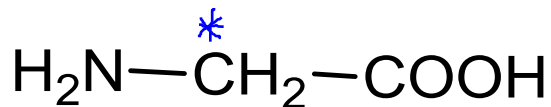
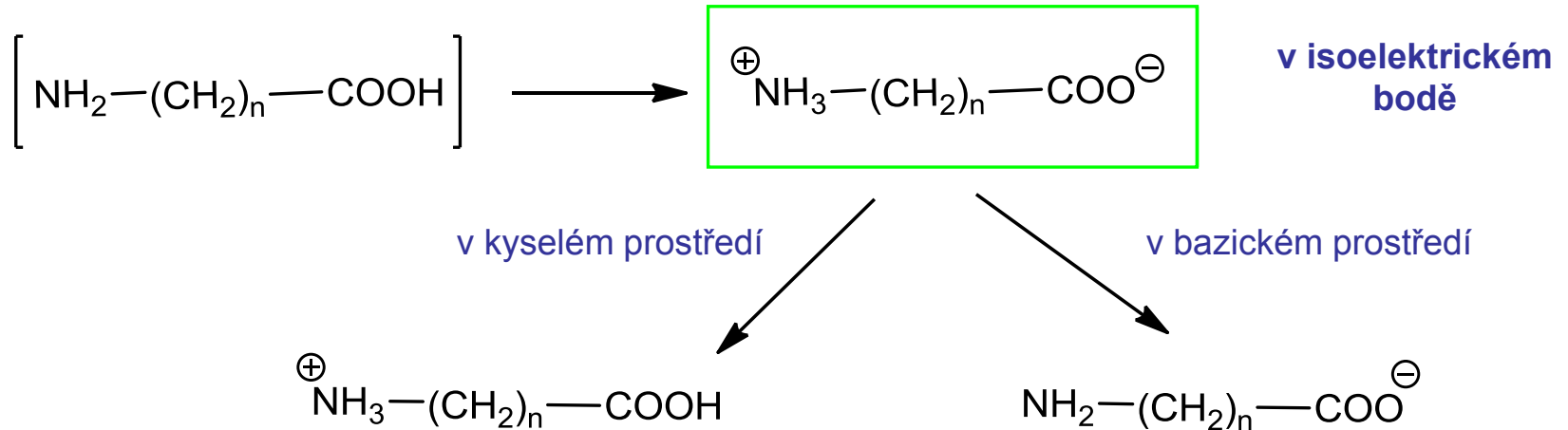


# Substituční deriváty karboxylových kyselin

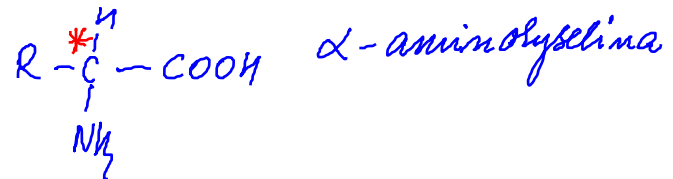
## Aminokyseliny

bez ohledu na to, jak jsou daleko od sebe aminoskupina a karboxyl vázány, jsou to skupiny opačného charakteru: **kyselina a báze**, které spolu interagují



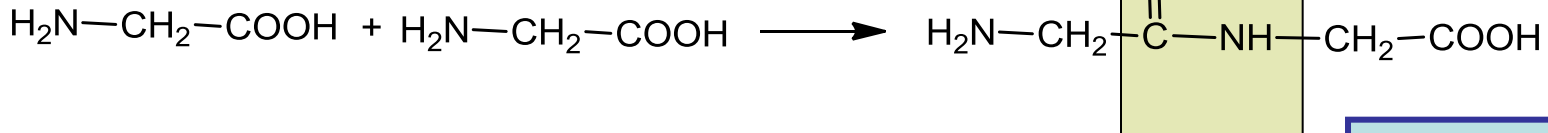
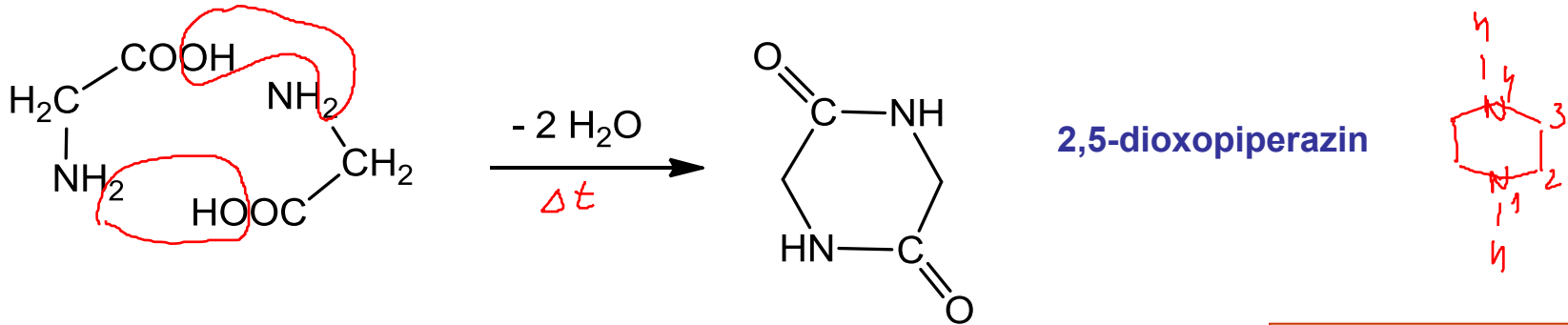
$\alpha$ -aminoctová kyselina  
glycin I.B. = 6,1

řada aminokyselin má stereogenní centra –  
existence enantiomerů



# Substituční deriváty karboxylových kyselin

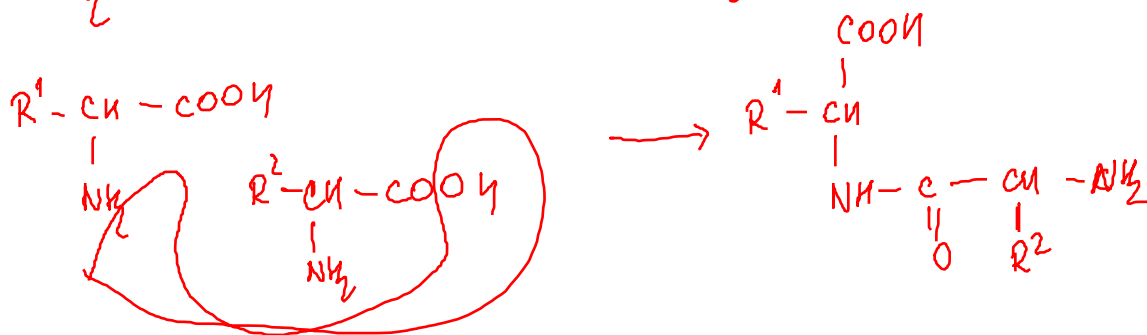
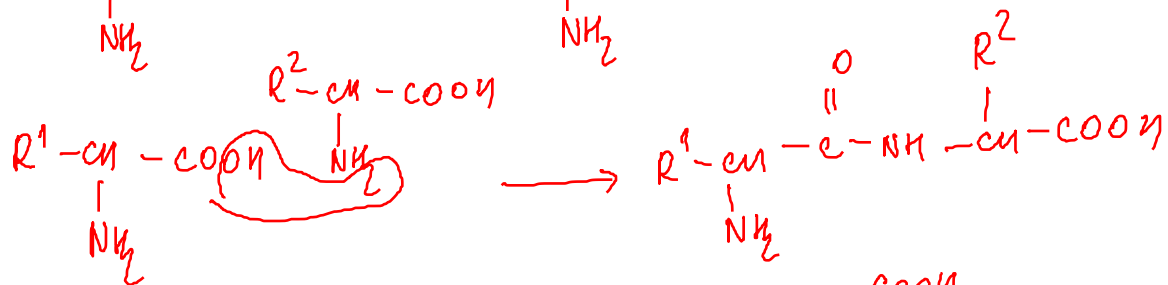
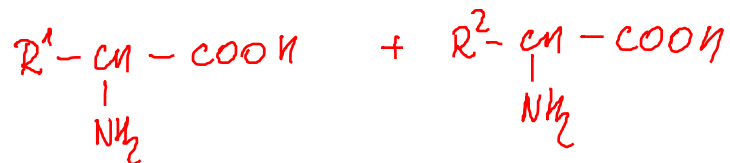
## dimerizace $\alpha$ -aminokyselin



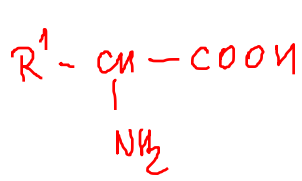
peptidická vazba

dipeptid  
polypeptidy  
bílkoviny

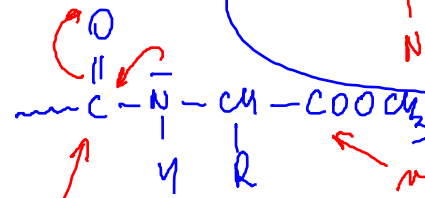
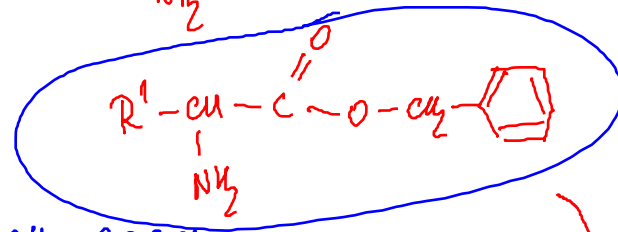
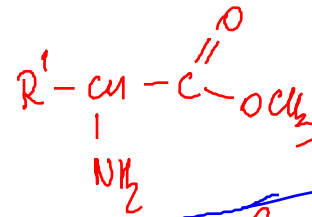
# Substituční deriváty karboxylových kyselin



# Substituční deriváty karboxylových kyselin



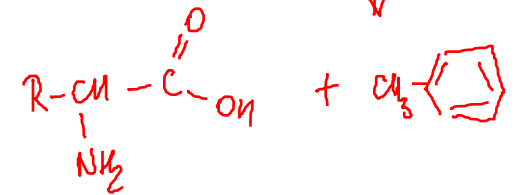
zabloudíme kyselinu tvorbou esteru  
 metylester  
benzylester



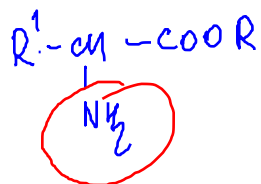
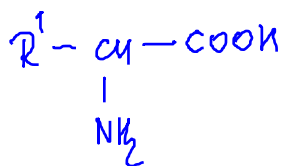
malá elektronová rezerva

větší el. rezerva

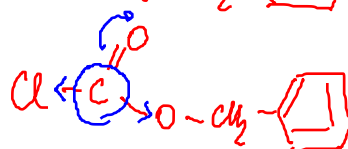
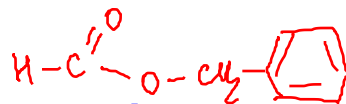
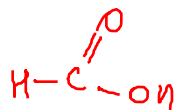
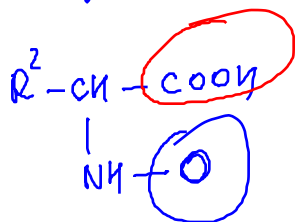
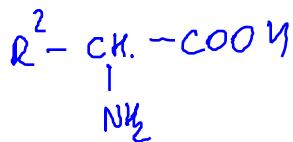
$\text{H}_2 / \text{Pd/C}$



# Substituční deriváty karboxylových kyselin

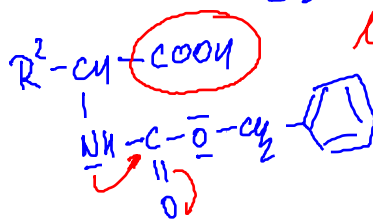
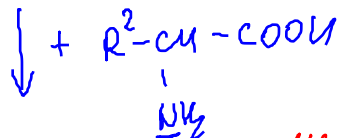


reagují nechráněné skupiny

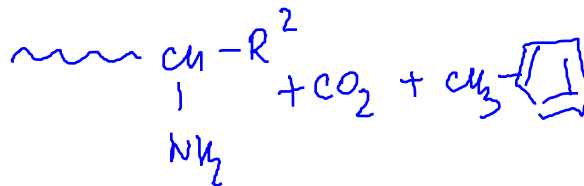
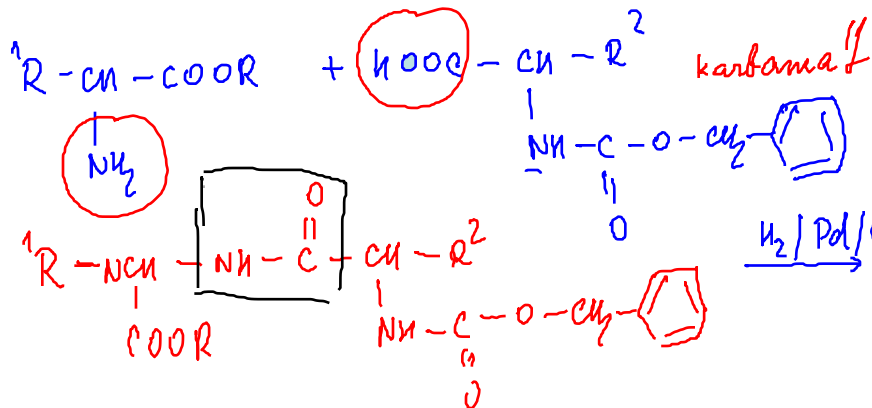


benzyl-chlorformiát  
benzylester kys. chloroformační

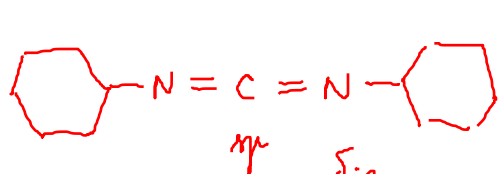
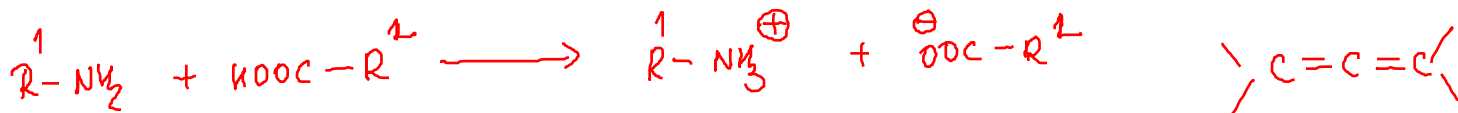
velmi citlivá na atak nukleofilu



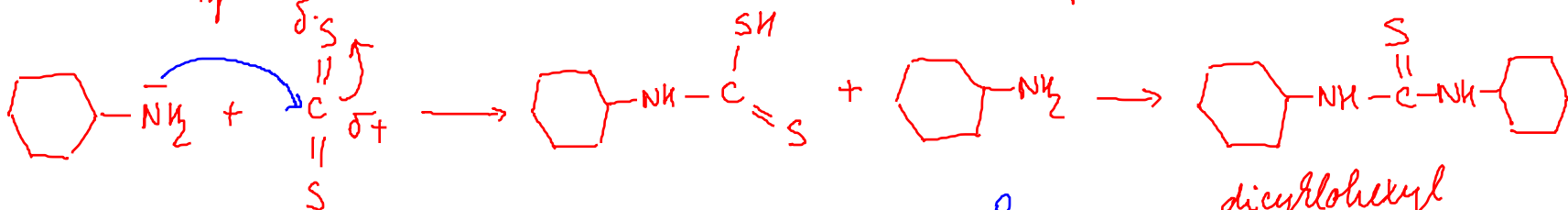
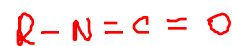
látke reagují na  
nechráněné  
karboxylové  
skupiny



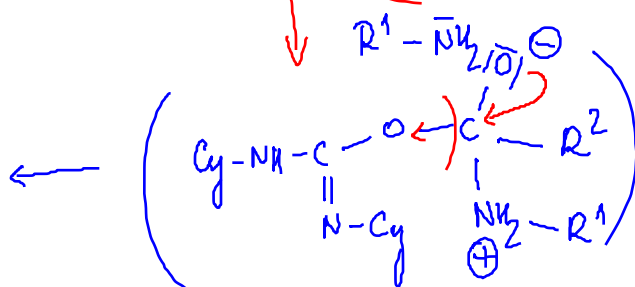
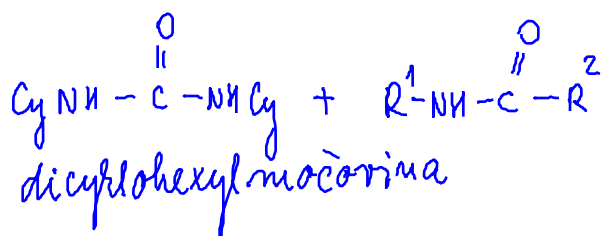
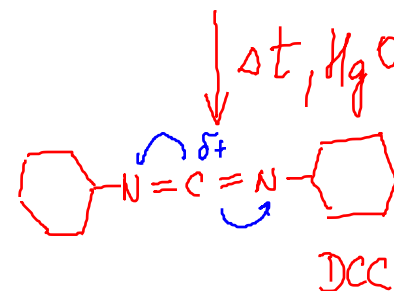
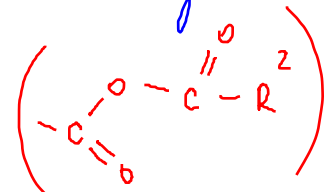
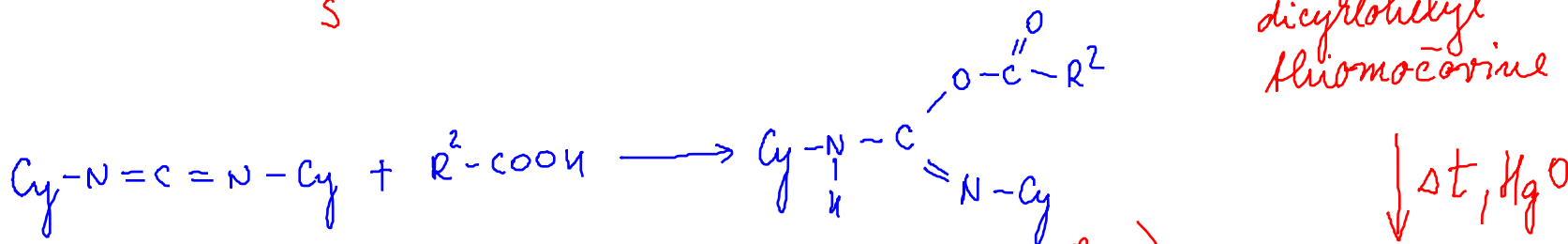
# Substituční deriváty karboxylových kyselin



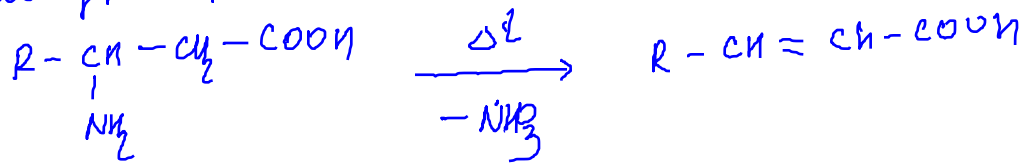
heterokumuleny  
DCC



dicyklohexyl  
thiomocovina



$\beta$ -aminyklycin

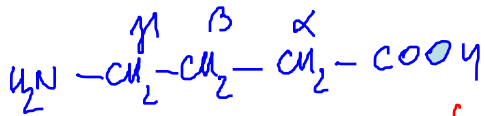


eliminaciu'  $\alpha, \beta$ -menarycent na ylove' kyseliny

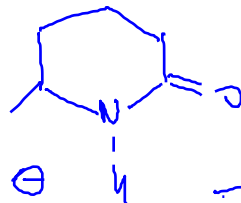
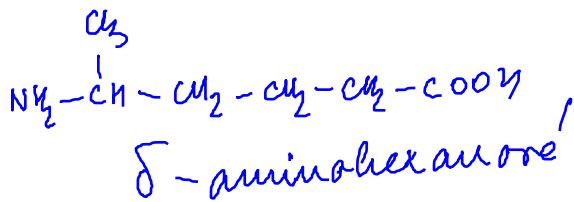
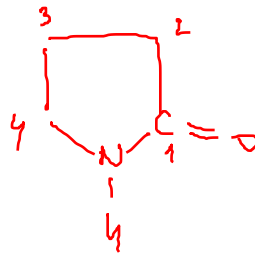
$\gamma, \delta$ -aminykyseliny

intramolekulární cyclizace

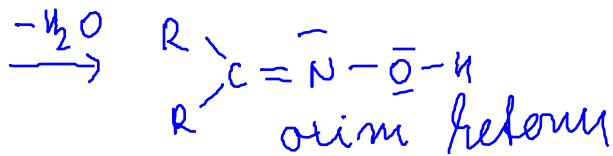
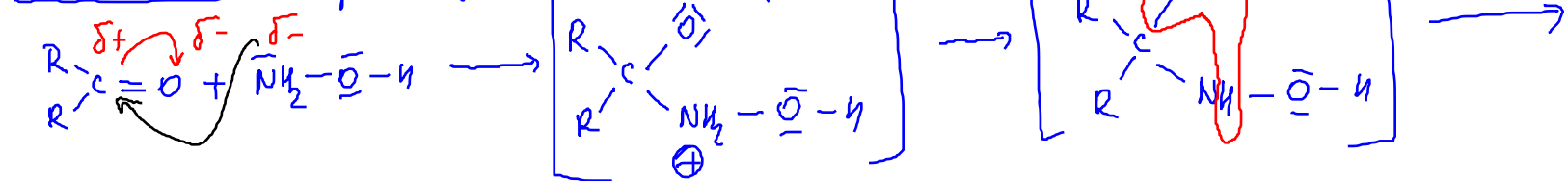
$\Rightarrow$  laktamy

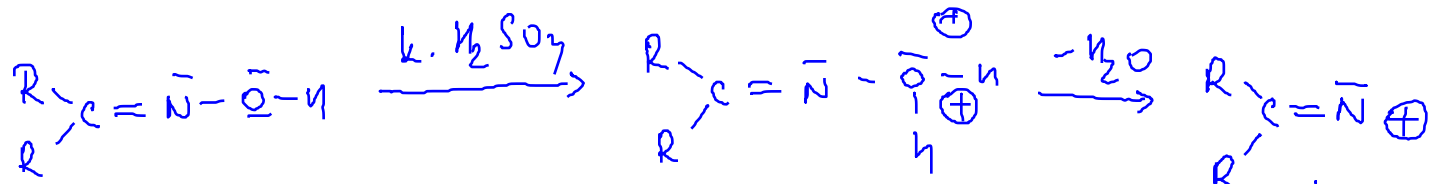


$\gamma$ -aminomáselne' lyseline

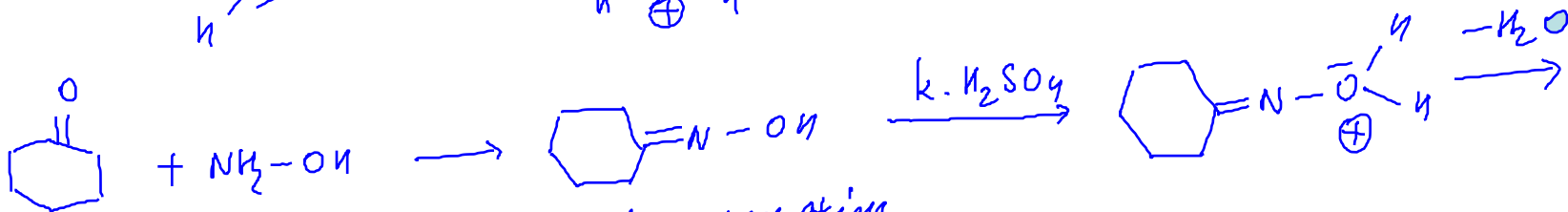
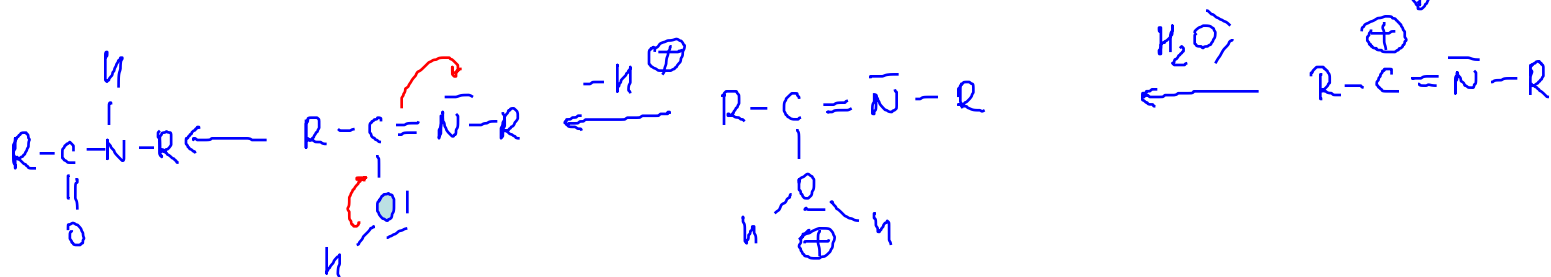


Beckmannova přeměna

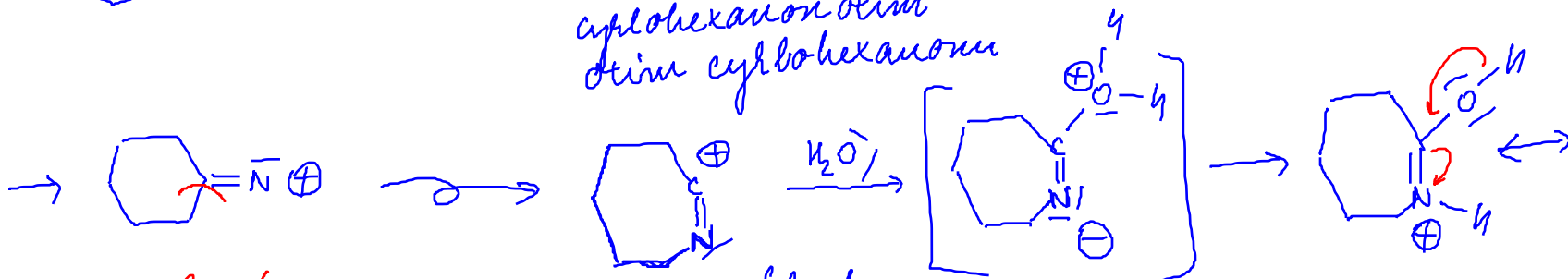




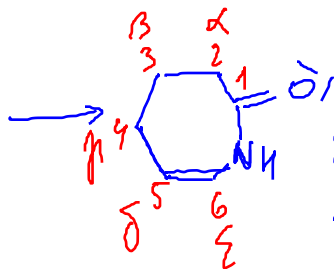
Beckmannov přetvzř



cyklohexanon otim  
otim cyklohexanonu



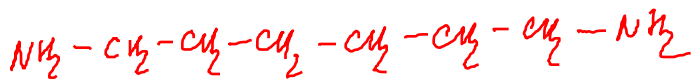
7 člunř hruš



ε-kaprolaktam  
laktam kys. kapronové

NH2-CH2-CH2-CH2-CH2-CH2-COOH  
 ε-aminokapronové

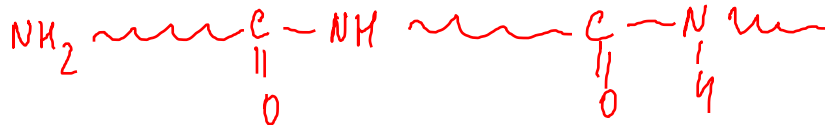
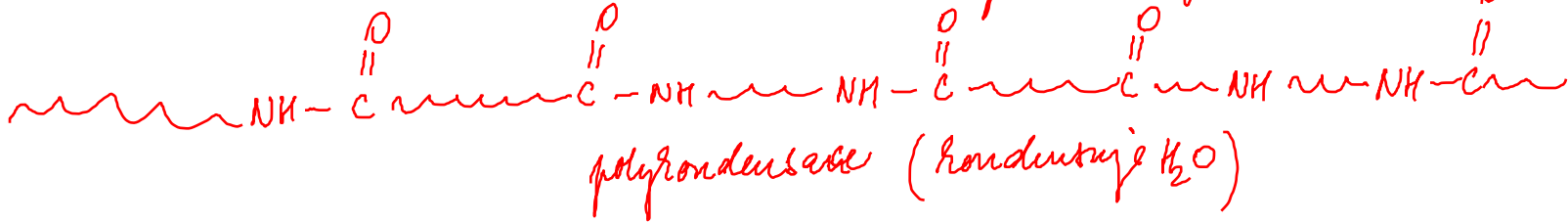




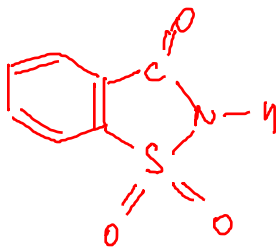
diamin



dicarboxylowa kys.

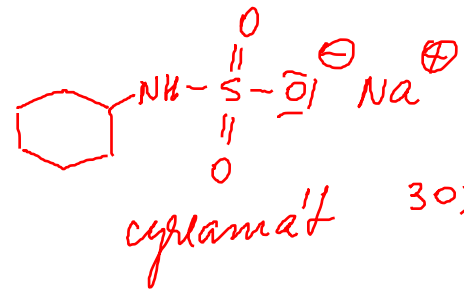
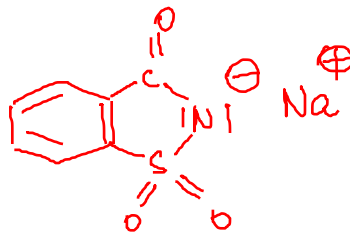


Amilá sledidla



seharin

500x



cyklamát 30x

ASPARTAM dipeptid 160x (L)-aspartyl - (L)-fenylalanin metylester

