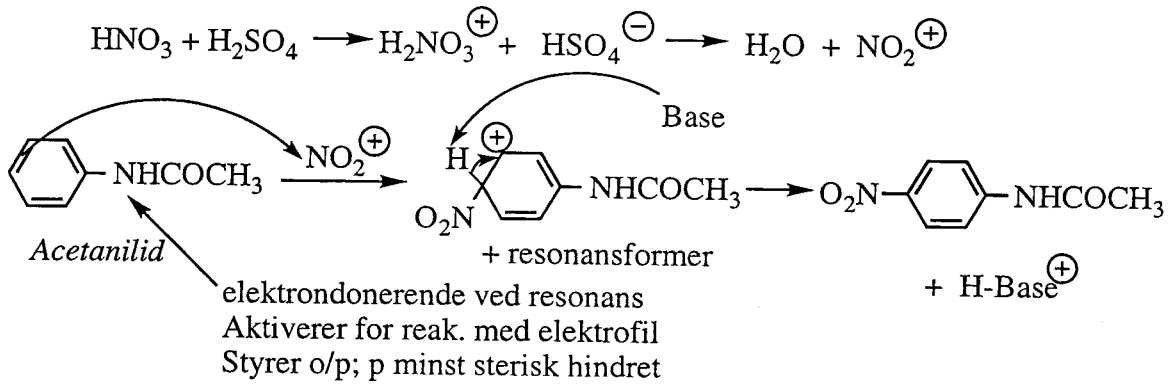


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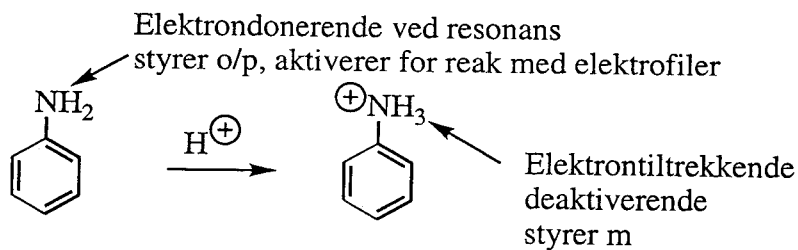
Løsningsforslag

Oppgave 1

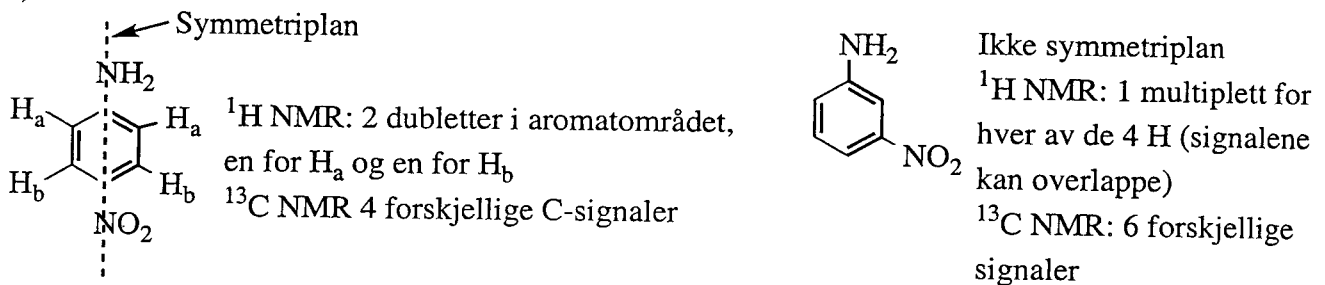
a)



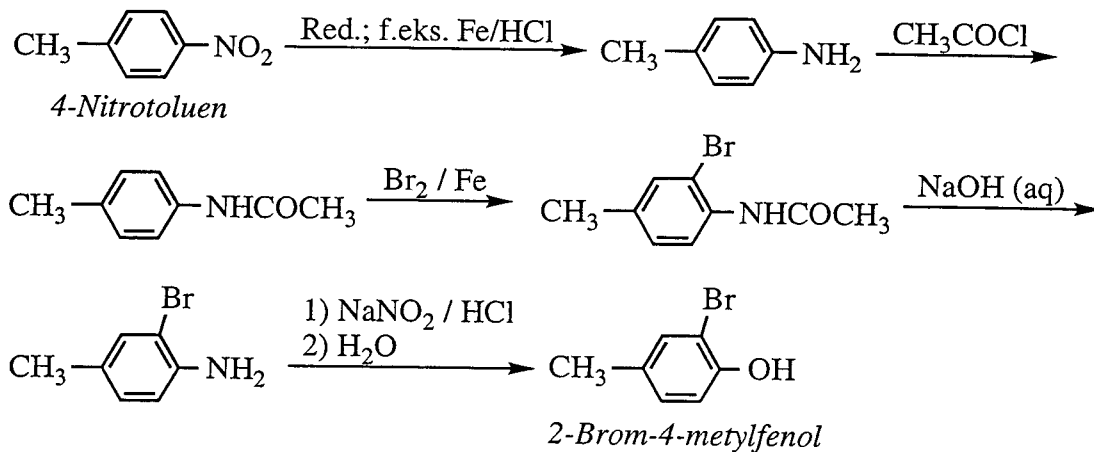
b)



c)

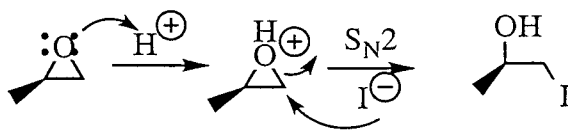


d)

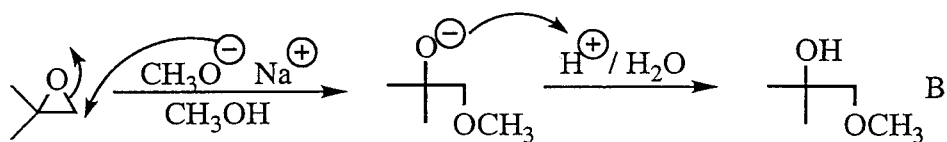
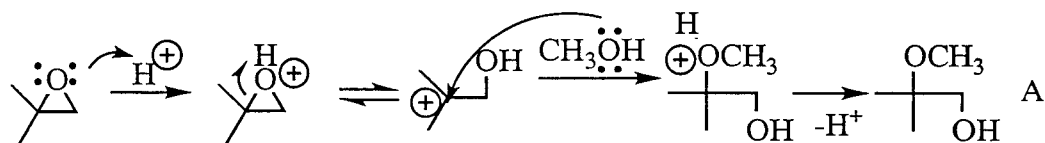


Oppgave 2

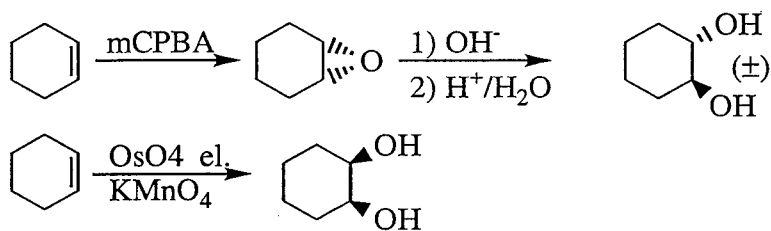
a)



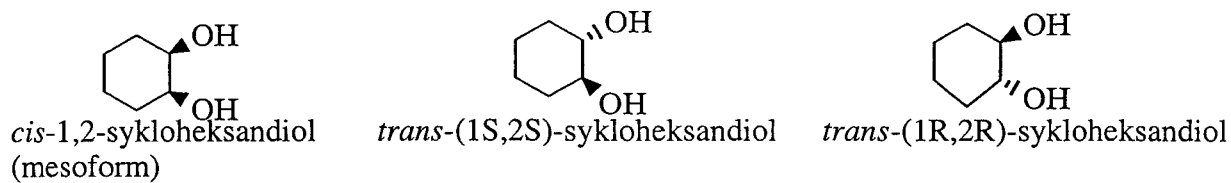
b)



c)



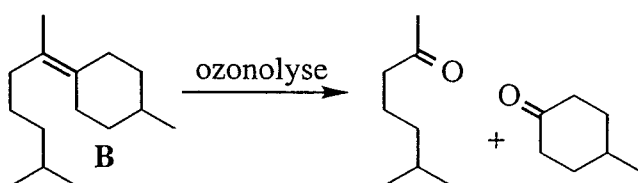
d)



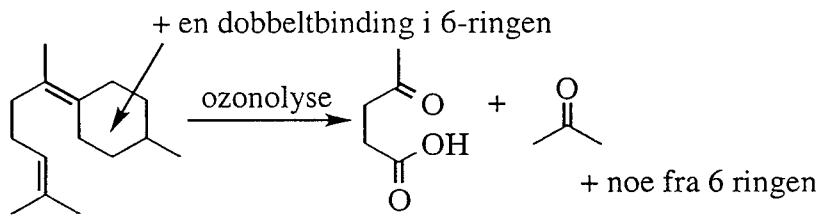
Oppgave 3

a) Totalt 4 umettetheter; 1 ring

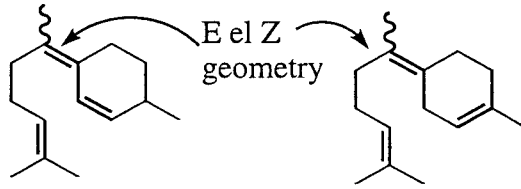
b)



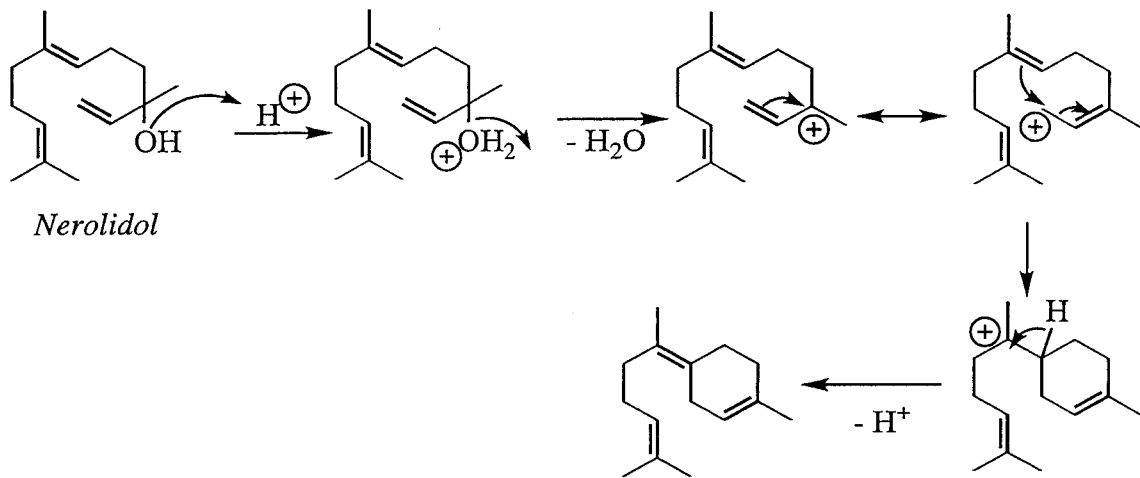
c)



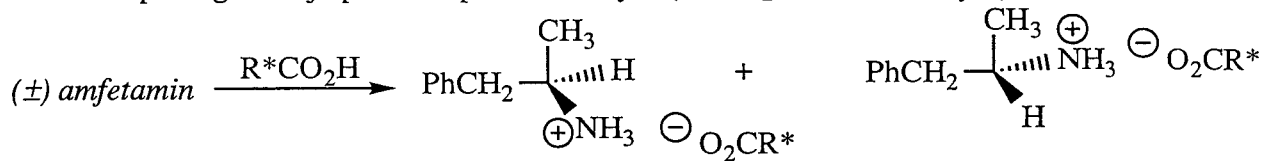
Mulige strukturer



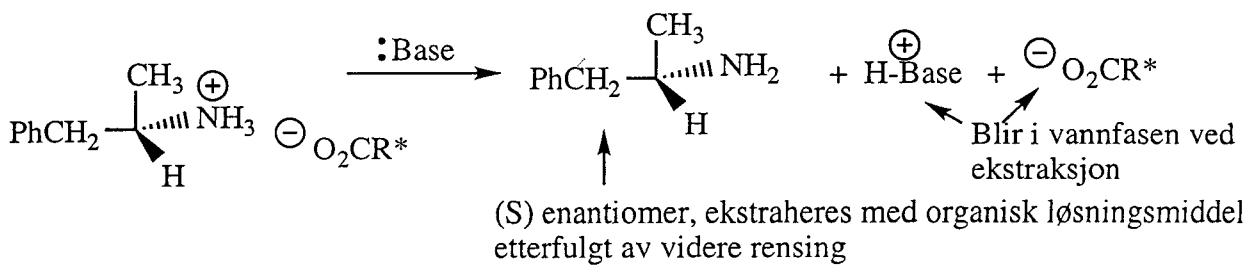
d)



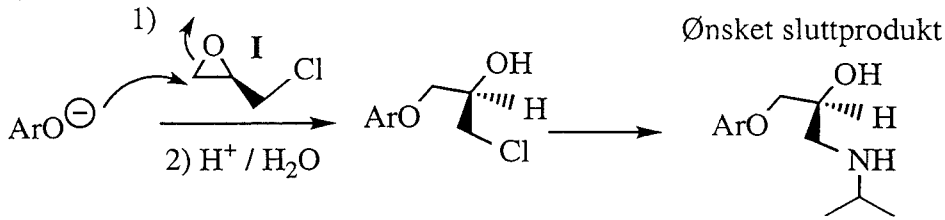
Oppgave 4

a) Otisk spalting ved hjelp av en optisk aktiv syre ($\text{R}^*\text{CO}_2\text{H}$, f. eks. vinsyre)

Diastereomere salter, separeres f. eks. ved krystallisasjon

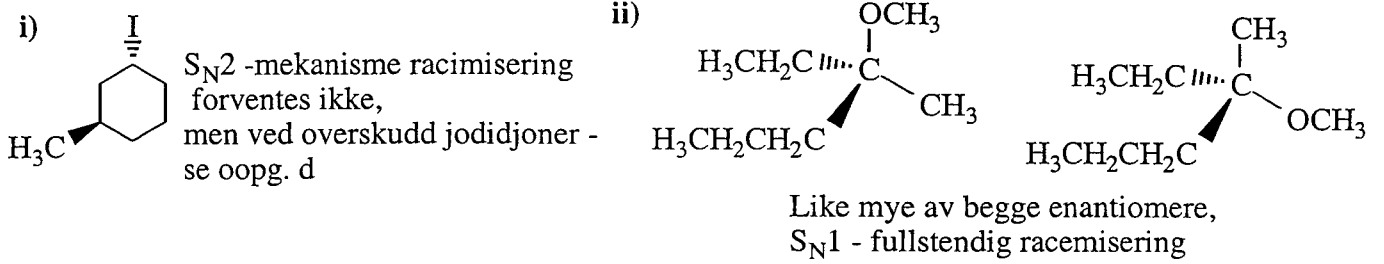


b)

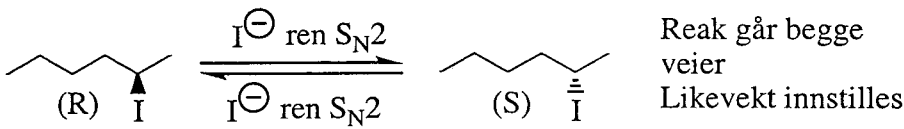


I har riktig stereokjemi
Åpningen av epoksidet
skjer etter $\text{S}_{\text{N}}2$ der
stereosenteret ikke røres
I kan brukes

c)

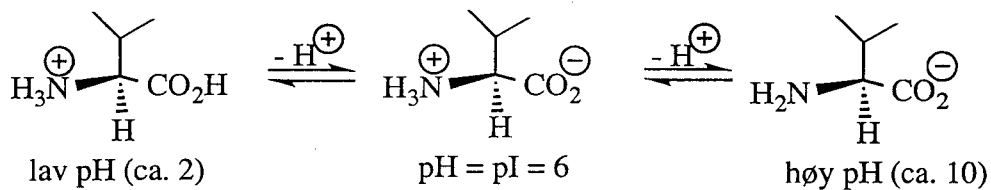


d)

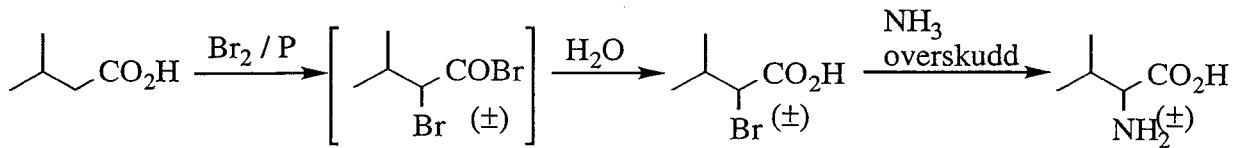


Oppgave 5

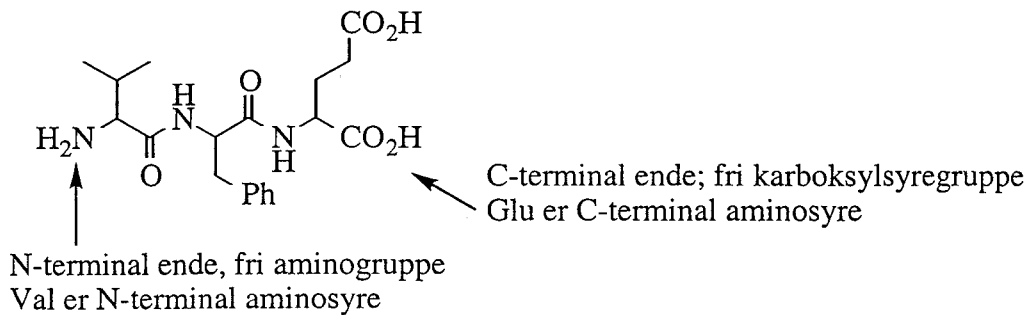
a)



b)

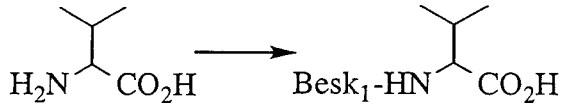


c)

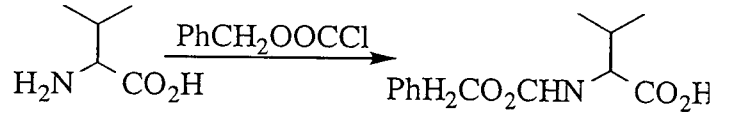


d)

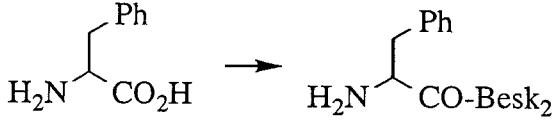
1) Beskyttelse av aminogruppen i Val



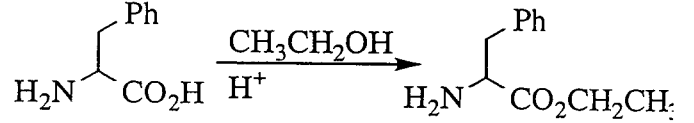
F. eks.



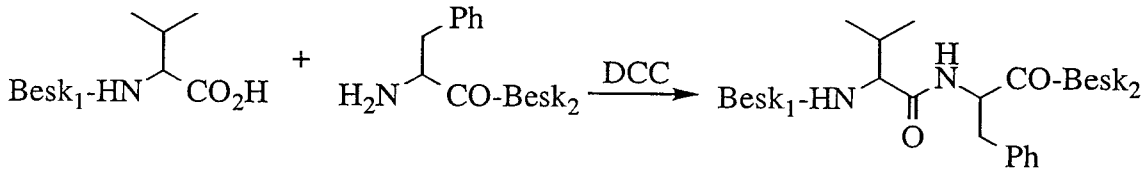
2) Beskyttelse av karboksylsyren i Phe



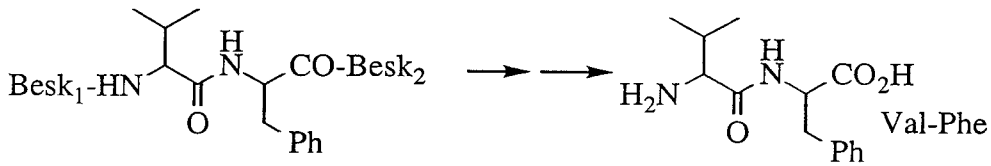
F. eks.



3) Aktivering av karbonylgruppen i Val og dannelse av peptidbinding



4) Spalting av beskyttelsesgrupper (2 trinn)



F. eks.

