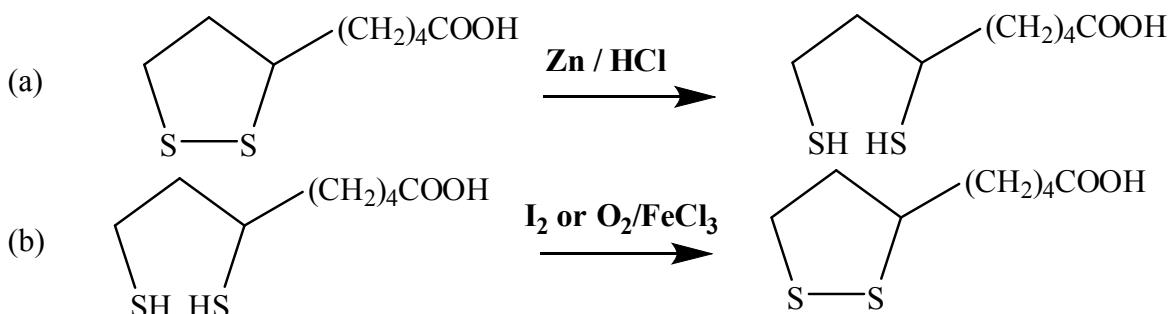


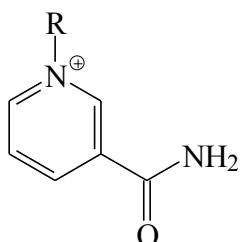
CHEM1611 Answers to Problem Sheet 7

1.



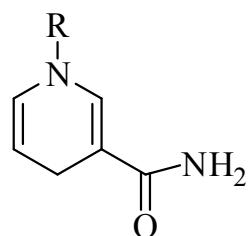
2.

NAD⁺:



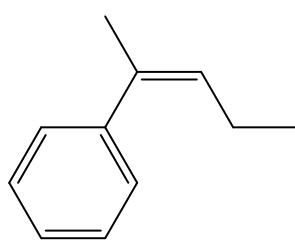
(R = adenine dinucleotide)

NADH:

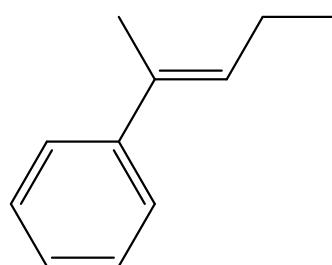


3.

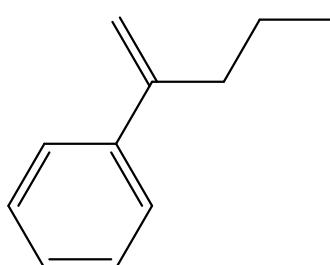
B



C

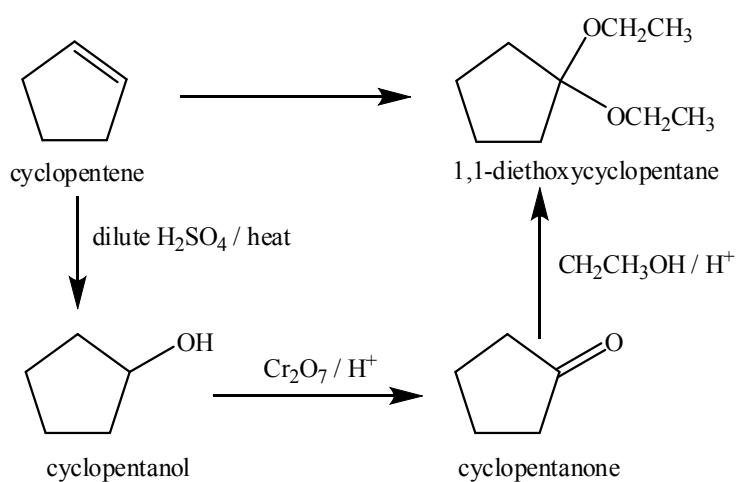


D

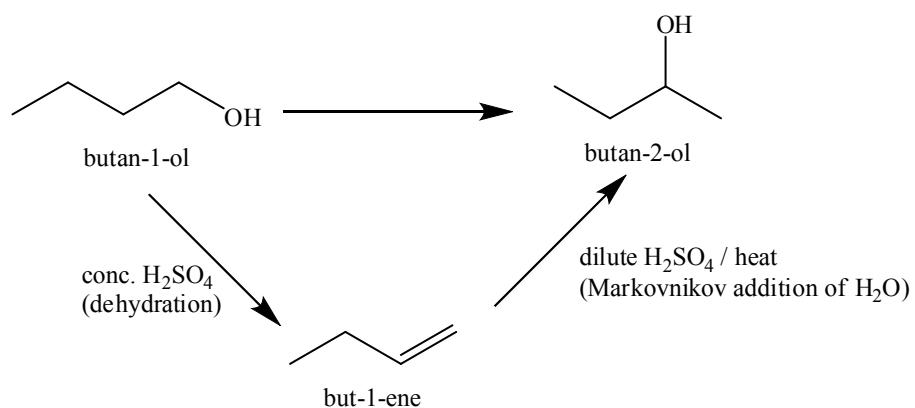


4.

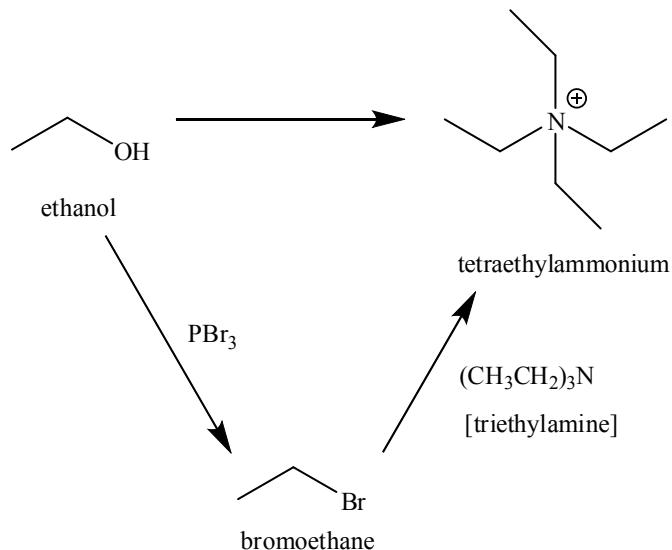
(a)



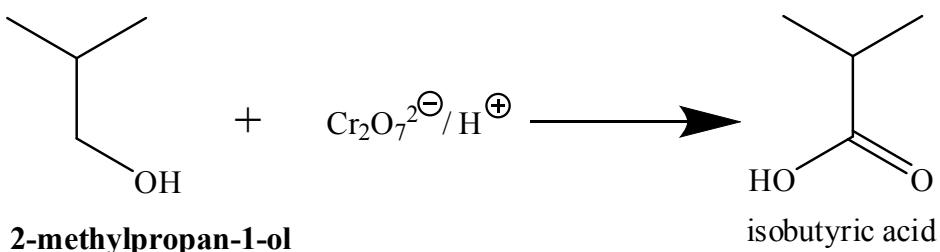
(b)



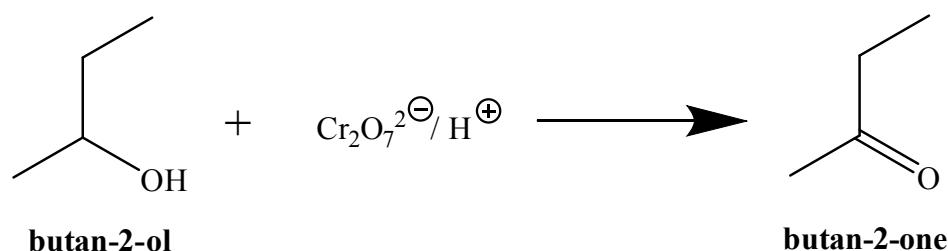
(c)



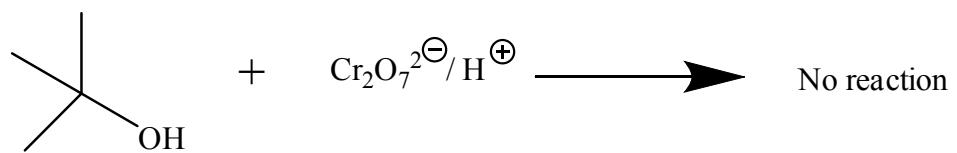
5.



1° alcohol \rightarrow carboxylic acid

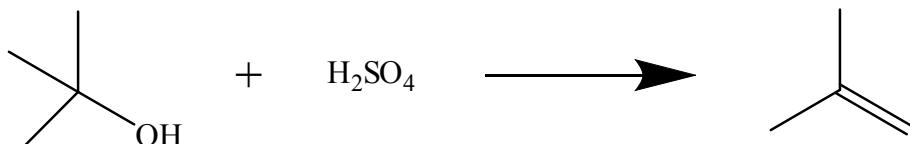


2° alcohol \rightarrow ketone



2-methylpropan-2-ol

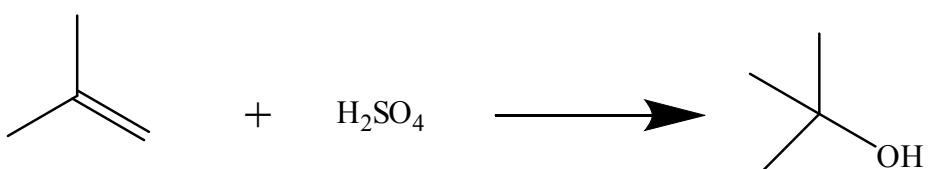
3° alcohol – no reaction with oxidizing agent



2-methylpropan-2-ol

2-methylprop-1-ene

Dehydration of 3° alcohol



2-methylprop-1-ene

2-methylpropan-2-ol

Hydration of a C=C bond