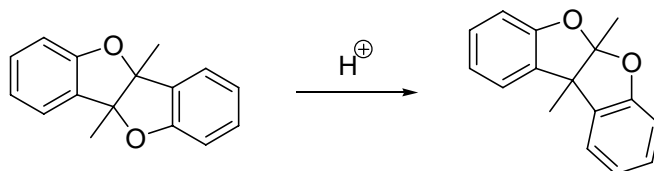


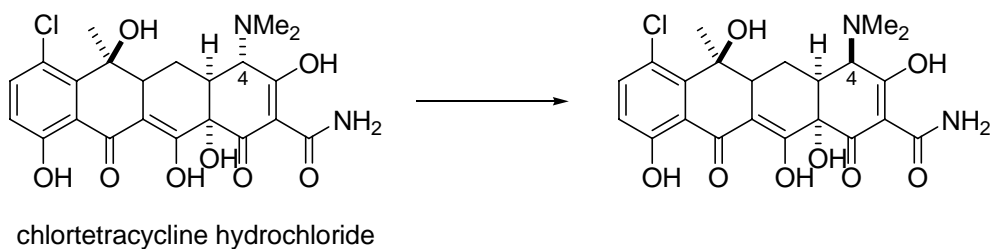
Group Meeting Problems

February 4, 2008

1. Please propose a mechanism for the following rearrangement.



2. Solutions of the broad-spectrum antibiotic chlortetracycline hydrochloride lose their therapeutic potency with time. This is due to rapid epimerization at the C4 position, forming an epimerized product having greatly reduced antibiotic activity. Please, write a mechanism for the epimerization reaction.



3. Please propose a mechanism for the following rearrangement.

