

## Seven-Membered Rings

### 8-1 Introduction

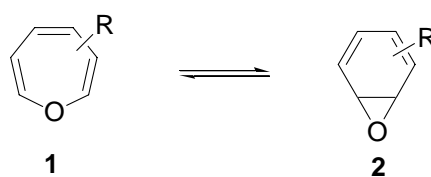
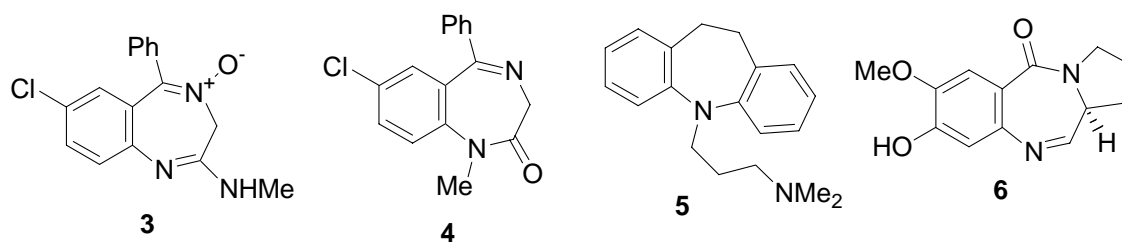


Figure 8-1 The equilibrium between oxepins and benzene oxides



### 8.2 Azepines

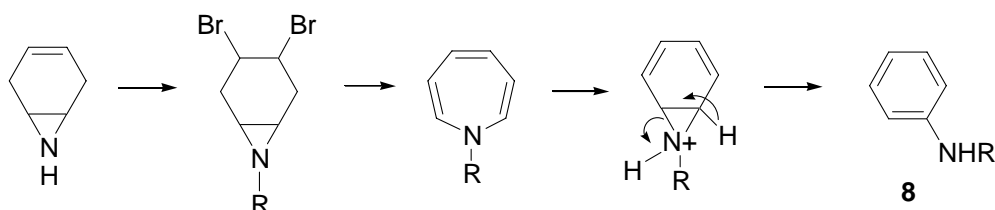


Figure 8.2 A route to 1-substituted 1*H*-azepines and their acid-catalysed isomerization

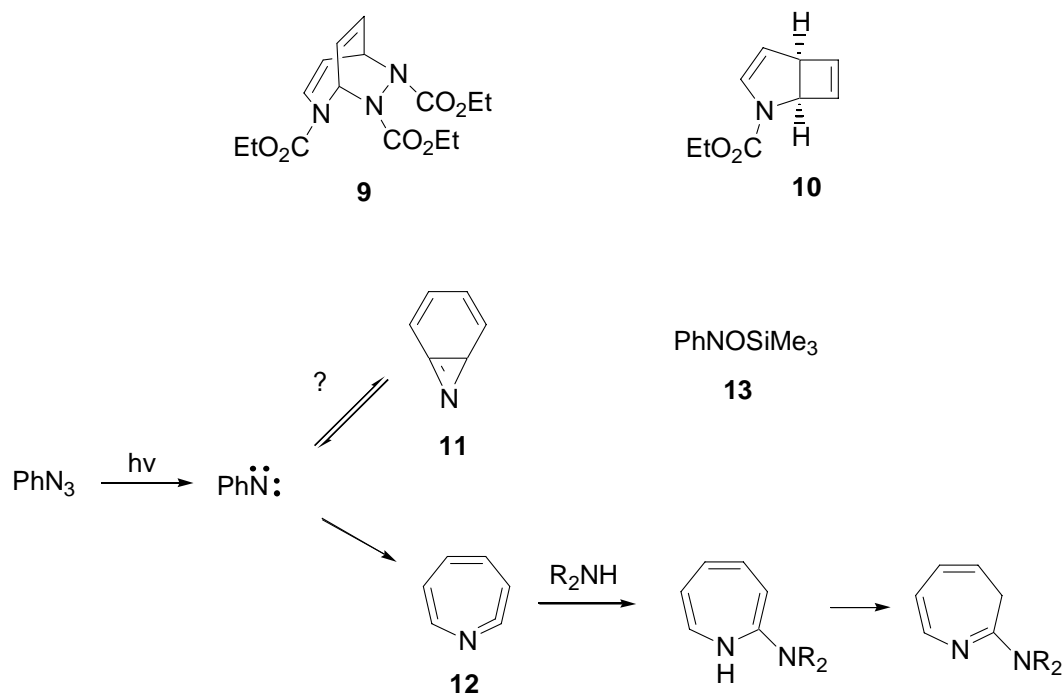


Figure 8.3 Azepines from the photolysis of azidobenzene

### 8.3 Oxepins and thiepins

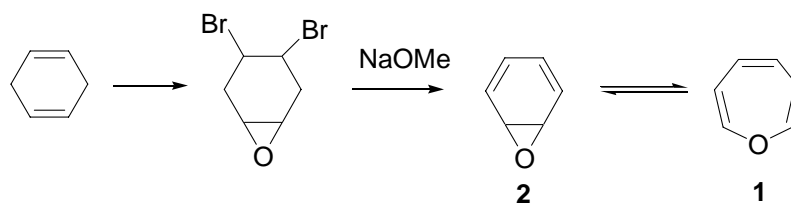


Figure 8.4 A synthesis of oxepin

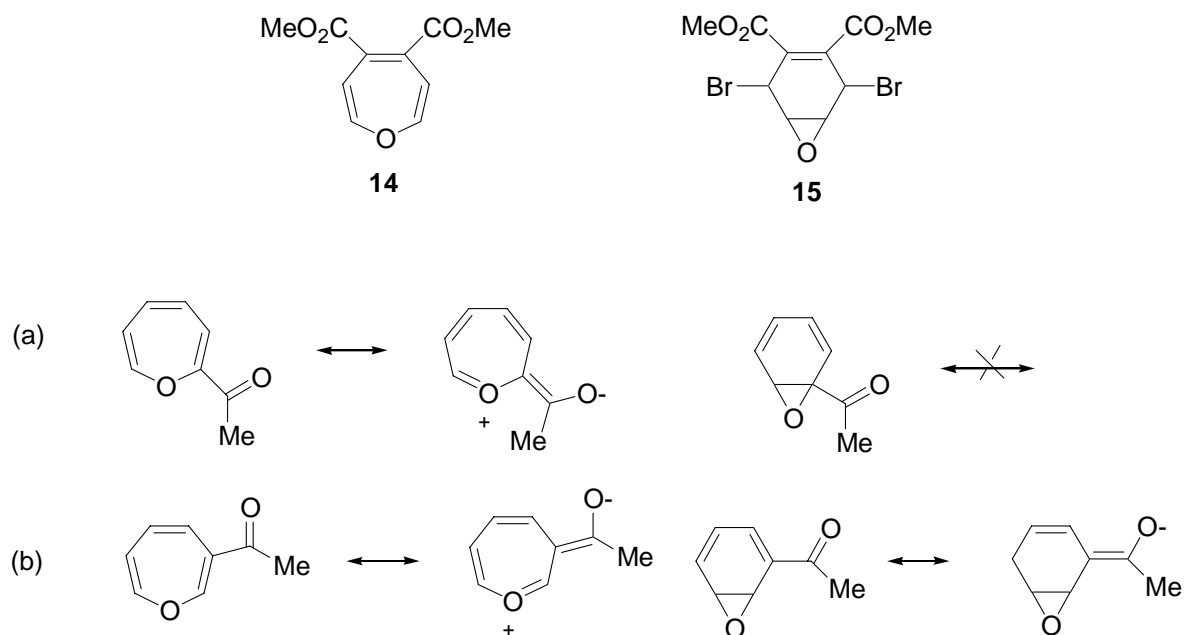


Figure 8.5 Conjugative interactions in (a) 2-acetyloxepin and its valence tautomer. (b) 3-acetyloxepin and its valence tautomer.

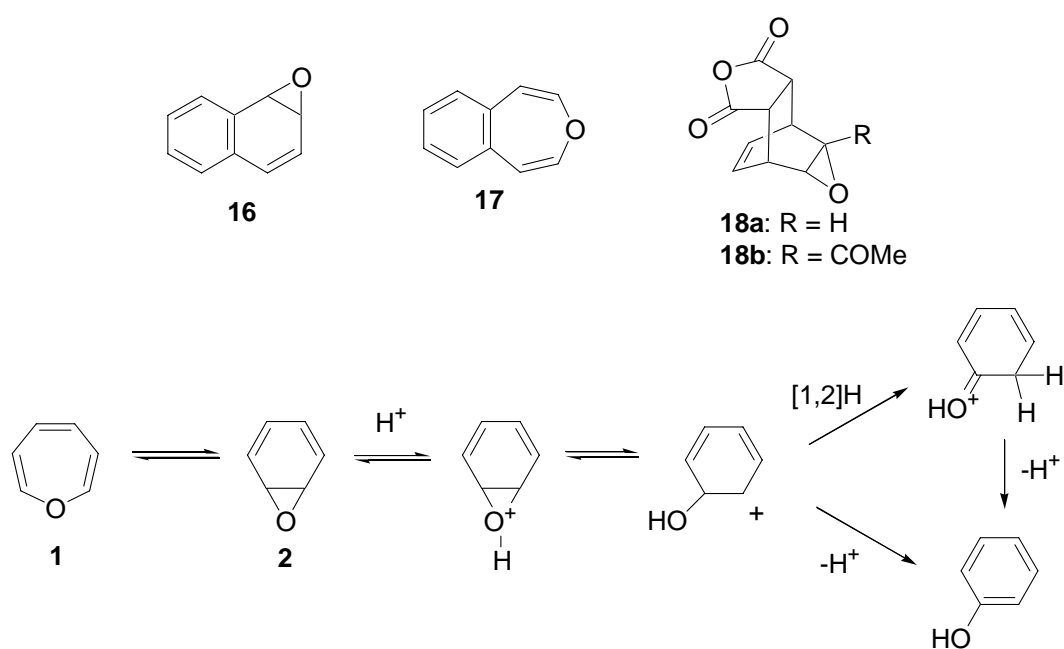
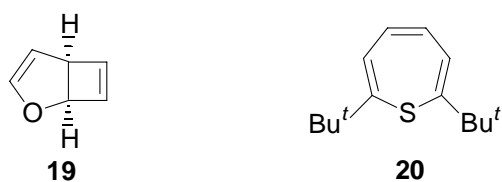


Figure 8.6 Acid-catalysed rearrangement of oxepin.



## 8.4 Diazepines and benzodiazepines

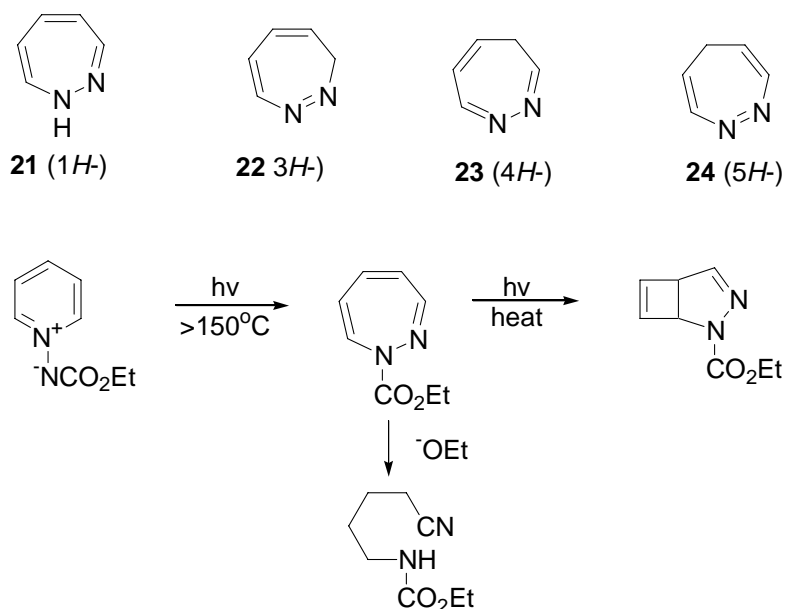


Figure 8.7 Reactions of ethyl 1,2-diazepine-1-carboxylate.

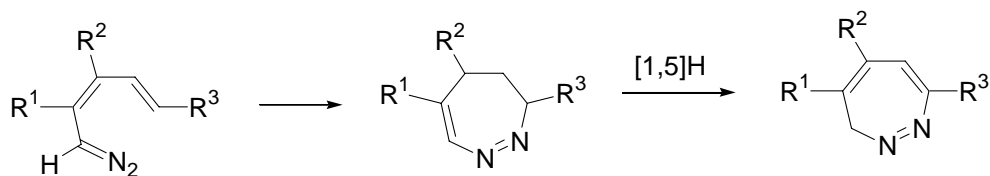


Figure 8.8 Formation of 3*H*-1,2-diazepines by 1,7-dipolar cyclization.



Figure 8.9 Isomerization of 5*H*-1,2-diazepines.

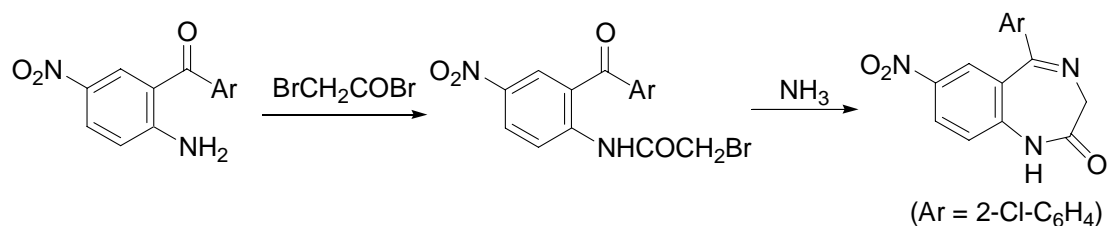


Figure 8.10 A route to clonazepam.

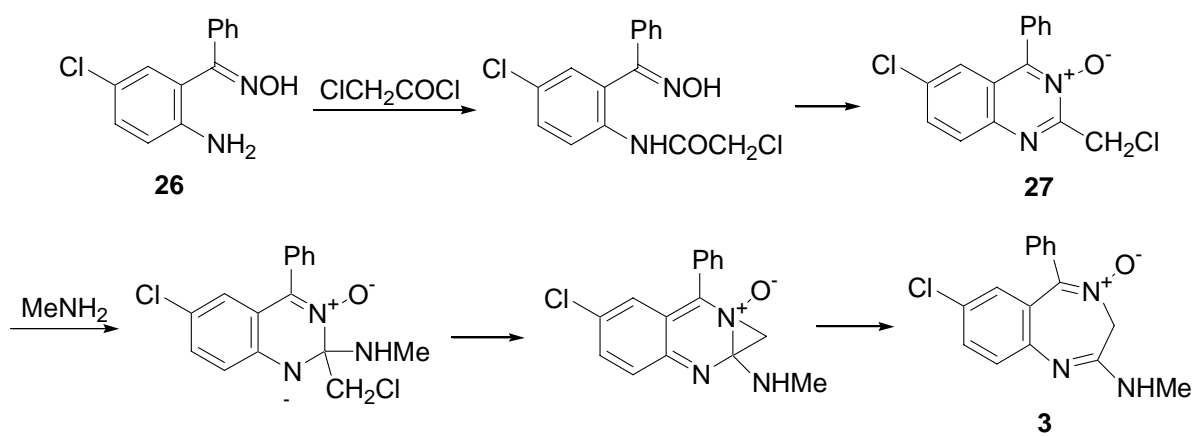


Figure 8.11 A route to chlorodiazepoxide.