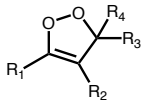
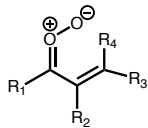
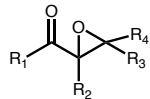
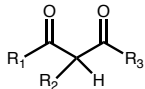
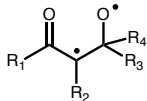


1,5-ring closure:

$R_4 = \text{H}$ or a C atom not bearing an abstractable H



dioxole



route only available if $R_4 = \text{H}$

