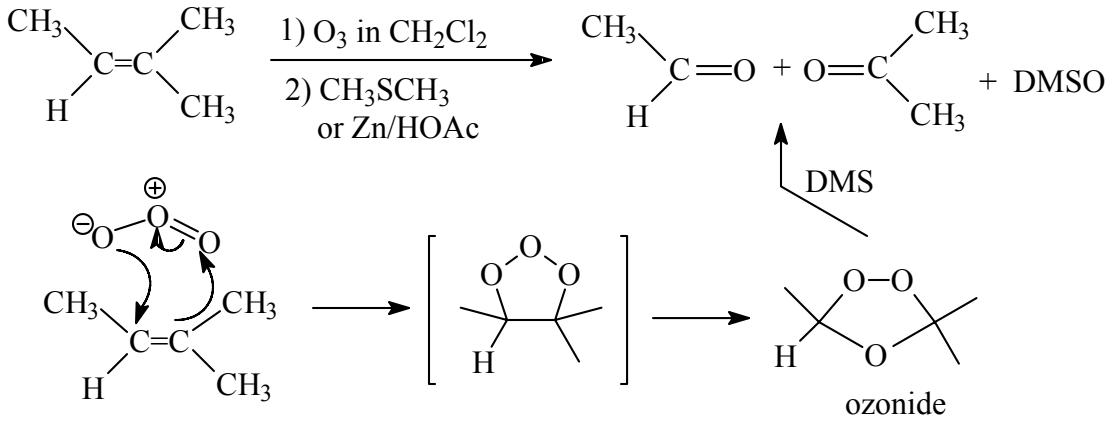
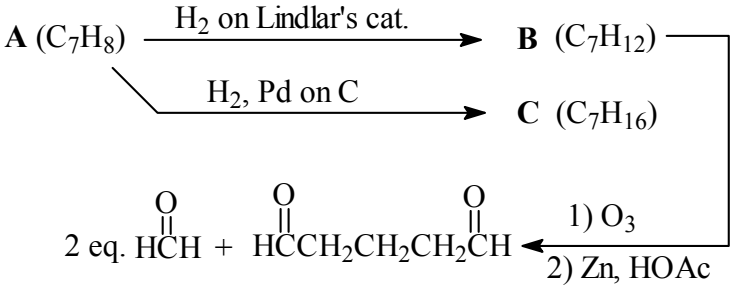
OZONOLYSIS

oxidative cleavage



An unknown compound (**A**) has a formula of $\mathbf{C_7H_8}$. Treatment of **A** with H_2 on Lindlar's catalyst gives compound **B** (C_7H_{12}). Treatment of **A** with H_2/Pd on carbon (standard hydrogenation) gives compound **C** (C_7H_{16}). Ozonolysis of **B** followed by a Zn/acetic work-up gives pentanedial and 2 equivalents of formaldehyde.



Propose structures for **A**, **B**, and **C** that are consistent with these data.