

Q7. Arrange the following hydrogen halides in order of their decreasing reactivity with propene.

(a) $\text{HCl} > \text{HBr} > \text{HI}$

(b) $\text{HBr} > \text{HI} > \text{HCl}$

(c) $\text{HI} > \text{HBr} > \text{HCl}$

(d) $\text{HCl} > \text{HI} > \text{HBr}$

Sol: (c) The decreasing order of reactivity of hydrogen halides with propene is $\text{HI} > \text{HBr} > \text{HCl}$. As the size of halogen increases, the strength of H – X bond decreases and hence, reactivity increases.