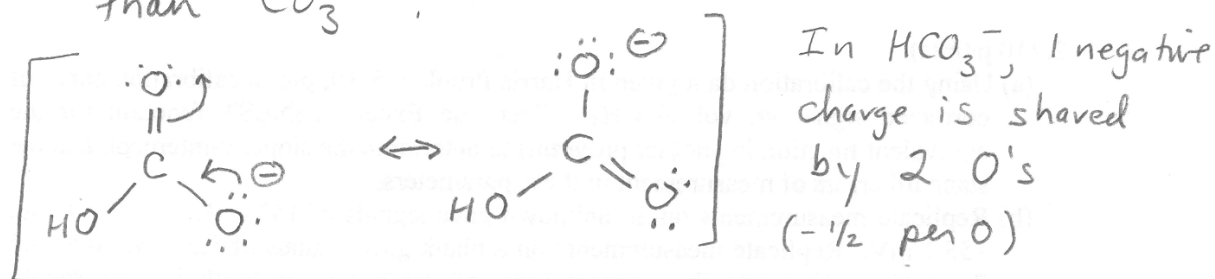
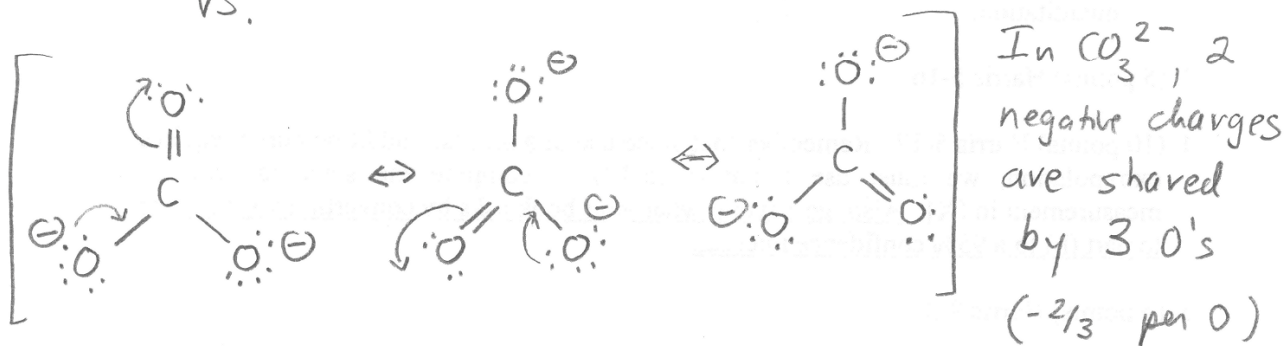


why such a large difference?

- ① Much less energy required to remove a  $\text{H}^+$  from a neutral ( $\text{H}_2\text{CO}_3$ ) than a negatively-charged ( $\text{HCO}_3^-$ ) species
- ②  $\text{HCO}_3^-$  is a more stable structure than  $\text{CO}_3^{2-}$ :



vs.



Extra electrons in anions repel the other electrons present, so the more delocalized this extra charge is, the lower the energy.