

Summary

1. Curved arrow notation shows the changes in electron configuration for each step of a reaction mechanism.
2. Curved arrows indicate the partial bonds formed or broken in the transition state (e.g., an arrow tail drawn from a bond represents a bond that is breaking; an arrow head drawn between two atoms represents a bond being made).
3. The sum of the formal charges on each side of a reaction arrow must balance.
4. The atoms in transition state structures may have developing or diminishing charge. Developing or diminishing charge in transition states is represented by the partial charge symbol (e.g., $\delta+$ or $\delta-$). If the formal charge on a particular atom changes from one side of the reaction arrow to the other, that atom is assigned a partial charge in the transition state.