

Le Chantelier's Principle

changes in equilibrium

as a result of a change in concentration, temperature or pressure

- Increasing Concentration**
 - shift AWAY from substance
 - extra concentration needs to be used up
- Decreasing Concentration**
 - shift TOWARDS substance
 - need to produce more of substance
- Increasing Temperature**
 - AWAY from heat/energy
 - extra heat/energy must be used up

exothermic reaction
- Decreasing Temperature**
 - TOWARDS heat/energy
 - more energy needs to be produced

endothermic reaction
- Increasing Pressure**
 - towards FEWER moles of gas
 - pressure increase = volume decrease (for a gas)
- Decreasing Pressure**
 - towards MORE moles of gas
 - pressure decrease = volume increase (for gas)