# Cheatography

## Le-Chatelier Principle

At the equilibrium of reversible reaction, if any of the factors (temperature, pressure and concentration) is changed, the position of the equilibrium will shift in such a direction that the effect of change of factors is relieved.

ffect of temperature (exothermic reaction)		Effect of concentration			
A+B>C+D+Energy		Reactant>product			
Or, A+B>C+D; ∀H=-ve		Concentration increase	Concentration decrease		
Temperature increase	Temperature decrese	Rate of forward reaction>Rate of	Rate of forward reaction <ra< td=""></ra<>		
Rate of forward reaction <rate of<="" td=""><td rowspan="2">Rate of forward reaction&gt;Rate of backward reaction</td><td>backward reaction</td><td rowspan="2">backward reaction Equilibrium shift <b>left ward</b></td></rate>	Rate of forward reaction>Rate of backward reaction	backward reaction	backward reaction Equilibrium shift <b>left ward</b>		
backward reaction		Equilibrium shift right ward			
Equilibrium shift left ward	Equilibrium shift right ward	Product concentration increase	Product concentration decre		
Product concentration decrease	Product concentration increase				
		Effect of temperature (endothermi	c reaction)		
Effect of pressure		A+B>C+D-Energy			
N <sub>2</sub> +3H <sub>2</sub> >2NH <sub>3</sub>		Or, A+B>C+D;			
Total mol more on left side		Temperature increase	Temperature decrese		
Pressure increase	Pressure decrease	Rate of forward reaction>Rate of	Rate of forward reaction <ra< td=""></ra<>		
Rate of forward reaction>Rate of	Rate of forward reaction <rate of<="" td=""><td>backward reaction</td><td>backward reaction</td></rate>	backward reaction	backward reaction		
Rate of forward reaction/Rate of					

Product concentration increase

## Effect of pressure

Equilibrium shift right ward

Product concentration increase

PCI5>PCI3+CI2			
Total mol more on right side			
Pressure increase	Pressure decrese		
Rate of forward reaction <rate of<="" td=""><td colspan="3">Rate of forward reaction&gt;Rate of</td></rate>	Rate of forward reaction>Rate of		
backward reaction	backward reaction		
Equilibrium shift left ward	Equilibrium shift right ward		
Product concentration decrease	Product concentration increase		

Equilibrium shift left ward

Product concentration decrease

## Effect of pressure

$H_{2}+$	l <sub>2</sub> >2HI
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Total	mol	equal	on	both	side
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Pressure increase

No effect

Pressure *decrease* No effect

NO effec

## Effect of pressure

Only applicable for gasses as pressure doesn't affect solid or liquid.



By **Tazz** (Tonoya) cheatography.com/tonoya/ Published 9th November, 2024. Last updated 9th November, 2024. Page 2 of 2. Sponsored by **ApolloPad.com** Everyone has a novel in them. Finish Yours! https://apollopad.com

Product concentration decrease