

Model	Acid definition	Base definition
Arrhenius		
Bronsted-Lowry		
Lewis		

OH^- producer

electron-pair donor

H^+ donor

H^+ producer

H^+ acceptor

electron-pair acceptor

Reaction	Lewis acid	Lewis base
$\text{H}^+ + \text{OH}^- \rightleftharpoons \text{H}_2\text{O}$		
$\text{Cl}^- + \text{BCl}_3 \rightleftharpoons \text{BCl}_4^-$		
$\text{SO}_3 + \text{H}_2\text{O} \rightleftharpoons \text{H}_2\text{SO}_4$		

H^+

Cl^-

OH^-

BCl_3

H_2O

SO_3