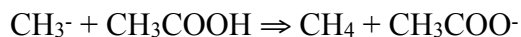


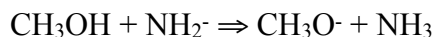
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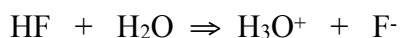
Acids/Bases and Chemical Equilibrium
Flex Remediation Session Assignment

Acids, Bases & Conjugates

Identify the following compounds as acids, bases, conjugate acid or conjugate base

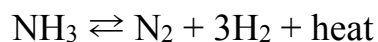






LeChatelier's Principle

Use arrows to indicate how the indicated changes will effect the concentration of the following substances:



Change: increase $[\text{N}_2]$

$[\text{NH}_3]$ _____

$[\text{H}_2]$ _____

temperature _____

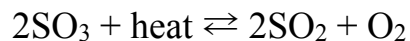


Change: increase $[\text{O}_2]$

$[\text{N}_2]$ _____

$[\text{NO}]$ _____

temperature _____



Change: decrease $[\text{SO}_2]$

$[\text{SO}_3]$ _____

$[\text{O}_2]$ _____

temperature _____

Reaction Rates and Collision Theory

Indicate if the following changes will increase or decrease the rate of the reaction and then explain why based on the collision theory of reaction rates. Use the terms frequency and magnitude of collisions.

Repeat an acid/base reaction with 2M HCl, rather than 1M HCl

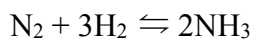
Decrease temperature

Grind a crystalline reactant into a powder

Add water, making the reactants less concentrated

Chemical Equilibrium

Below is the Haber Process, which has a K_c value of 9.60.



Write the K_c expression for the reaction

At equilibrium, it reaches the following concentrations: 0.025M N_2 and 0.050M H_2 .
Calculate the molarity of NH_3 .

At equilibrium, does this reaction favor reactants or products? Explain your reasoning

Please excuse _____ during PRIDE on Thursday May 16th to attend a remediation session for chemistry.



Teachers' Signatures