

Calculate the pH to the nearest 0.01 unit of a solution which is 0.015 M in NH_3 and 0.10 M in NH_4Cl . The K_b for NH_3 is 1.8×10^{-5} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 8.43

Calculate the pH to the nearest 0.01 unit of a solution which is 0.025 M in CH_3NH_2 and 0.15 M in $\text{CH}_3\text{NH}_3\text{Cl}$. The K_b for CH_3NH_2 is 2.29×10^{-11} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 2.58

Calculate the pH to the nearest 0.01 unit of a solution which is 0.050 M in $(\text{CH}_3)_3\text{N}$ and 0.10 M in $(\text{CH}_3)_3\text{NHCl}$. The K_b for $(\text{CH}_3)_3\text{N}$ is 1.59×10^{-10} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 3.90

Calculate the pH to the nearest 0.01 unit of a solution which is 0.35 M in HONH_2 and 0.025 M in HONH_3Cl . The K_b for HONH_2 is 3.2×10^{-7} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 8.65

Calculate the pH to the nearest 0.01 unit of a solution which is 0.0025 M in $\text{C}_6\text{H}_5\text{NH}_2$ and 0.035 M in $\text{C}_6\text{H}_5\text{NH}_3\text{Cl}$. The K_b for $\text{C}_6\text{H}_5\text{NH}_2$ is 6.46×10^{-6} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 7.66

Calculate the pH to the nearest 0.01 unit of a solution which is 0.075 M in $(\text{CH}_3)_2\text{NH}$ and 0.20 M in $(\text{CH}_3)_2\text{NH}_2\text{Cl}$. The K_b for $(\text{CH}_3)_2\text{NH}$ is 2.0×10^{-11} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 2.88

Calculate the pH to the nearest 0.01 unit of a solution which is 0.0085 M in NH_3 and 0.055 M in NH_4Cl . The K_b for NH_3 is 1.8×10^{-5} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 8.44

Calculate the pH to the nearest 0.01 unit of a solution which is 0.15 M in C_5H_4N and 0.025 M in C_5H_4NHCl . The K_b for C_5H_4N is 7.59×10^{-12} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 3.66

Calculate the pH to the nearest 0.01 unit of a solution which is 0.0085 M in $C_6H_6NH_2$ and 0.045 M in $C_6H_6NH_3Cl$. The K_b for $C_6H_6NH_2$ is 6.46×10^{-6} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 8.09

Calculate the pH to the nearest 0.01 unit of a solution which is 0.090 M in $HONH_2$ and 0.010 M in $HONH_3Cl$. The K_b for $HONH_2$ is 3.2×10^{-7} . Write the Brønsted-Lowery reaction and the equilibrium expression.

Ans = 8.46