

pH Calculations for Salt Solutions

Example One

What is the pH of a 0.200 M solution of NH_4Cl ?

The base dissociation constant for ammonia (NH_3) is $K_b = 1.8 \times 10^{-5}$

Example Two

What is the pH of a 0.10 M solution of NaF in water?

The K_a for HF is $K_a = 6.8 \times 10^{-4}$

Example Three

What is the pH of a 0.10 M solution of $\text{CH}_3\text{NH}_3\text{Br}$ in water?

The K_b for methylamine, CH_3NH_2 is $K_b = 4.4 \times 10^{-4}$