Name _____

Base's Bold Encounter with Acids: The Reaction and Its Products

Short Answer Key

1. In neutralization, a base reacts with an acid to form water (H2O) and a salt. The base accepts hydrogen ions (H+) from the acid, neutralizing its acidity.
2. The reaction is called "neutralization" because it results in the formation of water, which has a neutral pH of 7, from the acidic and basic components.
3. The balanced chemical equation for the neutralization reaction between potassium hydroxide (KOH) and sulfuric acid (H2SO4) is: $2KOH + H_2SO_4 \rightarrow K_2SO_4 + 2H_2O$.
4. Water (H2O) is formed as a byproduct when the hydrogen ions (H+) from the acid combine with the hydroxide ions (OH-) from the base.
5. Ammonium chloride (NH4Cl) can be formed as a byproduct of the neutralization reaction between ammonia (NH3) and hydrochloric acid (HCl).