

## 19.7 Introduction to the pH Curve for a Strong Acid/Strong Base Titration (Video)

This project was preformed to supply **Libretext authors** with videos on General Chemistry topics which can be used to enhance their projects. Also, these videos are meant to act as a learning resource for **all General Chemistry students**.

### Video Topics

Titration is the gradual interaction of an acid or base. We will be looking at how the pH of a solution changes during a strong acid / strong base titration.

#### Important points:

**Starting point:** Mol of added  $\text{OH}^- = 0$ . The pH is completely determined by the molarity of the strong acid.

#### Before the equivalence point:

Mol of added  $\text{OH}^- < \text{Mol of H}_3\text{O}^+$ .

Subtract mol  $\text{OH}^-$  from Mol  $\text{H}_3\text{O}^+$  to find the # Mol  $\text{H}_3\text{O}^+$  remaining.

Divide by the  $V_{\text{total}}$  to find  $\{\text{H}_3\text{O}^+\}$

**Equivalence point:** Mol of added  $\text{OH}^- = \text{Mol of H}_3\text{O}^+$ .

At the equivalence point of a strong acid / strong base titration the  $\text{pH} = 7$ .

#### After the equivalence point:

Mol of added  $\text{OH}^- > \text{Mol of H}_3\text{O}^+$ .

Subtract mol  $\text{H}_3\text{O}^+$  from Mol  $\text{OH}^-$  to find the # Mol  $\text{OH}^-$  remaining.

Divide by the  $V_{\text{total}}$  to find  $\{\text{OH}^- \}$

### Link to Video

Introduction to the pH Curve for a Strong Acid/Strong Base Titration: <https://youtu.be/kaObZtyKvsw>



### Attribution

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