

## 18.6 Calculating pH in Strong Acid or Strong Base Solutions (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

**This video discusses how to the pH of a strong acid or strong base solution.**

What is the  $\{\text{OH}^-\}$  in a 0.10 M solution of HCl?

HCl is a strong acid so 100% dissociation

$$(0.10 \text{ M})(1 \text{ mol H}_3\text{O}^+ / 1 \text{ mol HCl}) = 0.10 \text{ M H}_3\text{O}^+$$

$$K_w = \{\text{H}_3\text{O}^+\} \{\text{OH}^-\} = 1.0 \times 10^{-14}$$

$$\{\text{OH}^-\} = K_w / \{\text{H}_3\text{O}^+\}$$

$$\{\text{OH}^-\} = 1.0 \times 10^{-14} / 0.10 \text{ M}$$

$$= 1.0 \times 10^{-13} \text{ M}$$

### Link to Video

Calculating pH in Strong Acid or Strong Base Solutions: <https://youtu.be/NNTPtn7hV2s>



### Attribution

- Prof. Steven Farmer (Sonoma State University)

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