

## 21.2 Balancing a Redox Reaction in Acidic Conditions (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 contains an example of balancing a redox reaction in acidic conditions.

Steps to balancing a redox reaction in an acid solution:

- 1) Separate the overall reaction into the 2  $\frac{1}{2}$  reactions.
- 2) Balance each  $\frac{1}{2}$  reaction for atoms in this order:  
Atoms other than H and O  
O atoms by adding  $\text{H}_2\text{O}$   
H atoms by adding  $\text{H}^+$
- 3) Balance each  $\frac{1}{2}$  reaction for electric charge using  $\text{e}^-$ .
- 4) Combine the two  $\frac{1}{2}$  reactions such that the number of  $\text{e}^-$  on each side of the reaction arrow will be the same.
- 5) Simplify the reaction by removing species that are the same on each sides.

### Link to Video

**Balancing a Redox Reaction in Acidic Conditions:** <https://youtu.be/TB-fWLsI0lc>



### Attribution

- Prof. Steven Farmer (Sonoma State University)

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