

# AP Chemistry Daily Videos

## 4.9 Oxidation-Reduction (Redox) Reactions

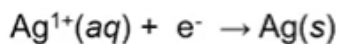
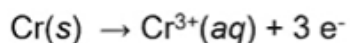
### Daily Video #1

1. What are the characteristics of Redox Reactions?

2. Work along with the following example problem.

When aluminum is placed in an aqueous solution of copper II chloride the products are aqueous aluminum chloride and solid copper. The reaction is represented by the equation shown below.

3. Work along with the following example problem.

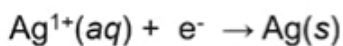
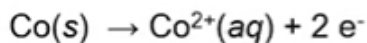


The half-reactions for the oxidation-reduction reaction between  $\text{Cr}(s)$  and  $\text{Ag}^{1+}(aq)$  are represented above.

(a) Which substance is being oxidized and which substance is being reduced?

(b) Write the balanced net ionic equation for the oxidation-reduction reaction based on the half-reactions above.

4. Pause the video at 4:05 and attempt the problem, then evaluate how you did and identify any errors.

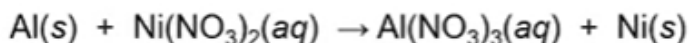


The half-reactions for the oxidation-reduction reaction between  $\text{Co}(s)$  and  $\text{Ag}^{1+}(aq)$  are represented above.

(a) Which substance is being oxidized and which substance is being reduced?

(b) Write the balanced net ionic equation for the oxidation-reduction reaction based on the half-reactions above.

5. Pause the video at 5:12 and attempt the problem, then evaluate how you did and identify any errors.



The reaction between solid aluminum and aqueous nickel (II) nitrate is represented by the equation shown above. Based on the equation, answer the following:

(a) Write the oxidation half-reaction and reduction half-reaction.

(b) Write the balanced net ionic equation for the oxidation-reduction reaction shown above.

6. What are the takeaways?