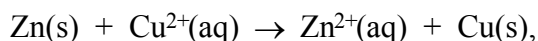


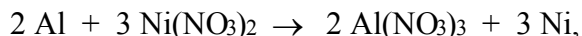
1. In the reaction



the species oxidized is

- A) Zn(s) B) Cu(s)
C) Cu²⁺(aq) D) Zn²⁺(aq)

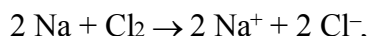
2. In the reaction



the aluminum is

- A) reduced and its oxidation number increases
B) reduced and its oxidation number decreases
C) oxidized and its oxidation number increases
D) oxidized and its oxidation number decreases

3. In the reaction



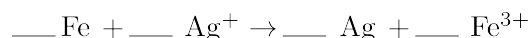
what species is oxidized?

- A) Na B) Cl₂ C) Na⁺ D) Cl⁻

4. Which half-reaction shows both the conservation of mass and the conservation of charge?

- A) Cl₂ + 2e⁻ → 2 Cl B) Cl₂ → Cl⁻ + 2e⁻
C) 2 Br⁻ + 2e⁻ → Br₂ D) Br⁻ → Br₂ + 2e⁻

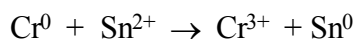
5. Given the unbalanced equation:



When the equation is correctly balanced using smallest whole numbers, the coefficient of Ag⁺ is

- A) 5 B) 2 C) 3 D) 4

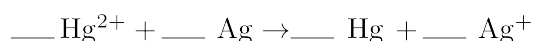
6. Given the unbalanced equation:



What is the coefficient in front of the Cr³⁺ when the equation is balanced using smallest whole number coefficients?

- A) 1 B) 2 C) 3 D) 6

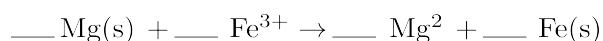
7. Given the reaction:



When the equation is completely balanced using the smallest whole number coefficients, the coefficient of Hg will be

- A) 1 B) 2 C) 3 D) 4

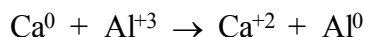
8. Given the unbalanced equation:



When the equation is completely balanced using smallest whole numbers, the coefficient of Mg(s) will be

- A) 1 B) 2 C) 3 D) 4

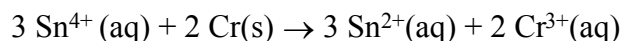
9. Given the unbalanced equation:



When the equation is completely balanced with the smallest whole number coefficients, what is the coefficient of Ca⁰?

- A) 1 B) 2 C) 3 D) 4

10. Given the reaction:



Which half-reaction correctly represents the reduction that occurs?

- A) Sn⁴⁺(aq) + 2e⁻ → Sn²⁺(aq)
B) Sn²⁺(aq) → Sn⁴⁺(aq) + 2e⁻
C) Cr(s) → Cr³⁺(aq) + 3e⁻
D) Cr³⁺(aq) + 3e⁻ → Cr(s)