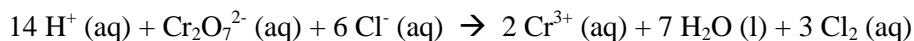
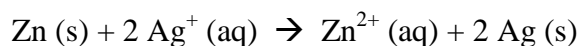


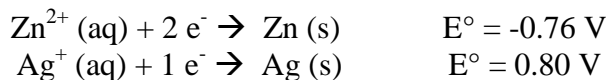
Vodcast - Electrochemistry



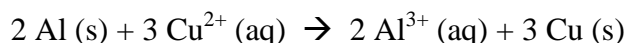
1. What can be stated about the oxidation number of chromium in the reaction above?
(A) Cr changes from -6 to +3
(B) Cr changes from -3 to +3
(C) Cr changes from +3 to +6
(D) Cr changes from +6 to +3
2. In which of the following species does sulfur have the same oxidation number as it does in H_2SO_4 ?
(A) H_2SO_3
(B) $\text{S}_2\text{O}_3^{2-}$
(C) S^{2-}
(D) SO_2Cl_2



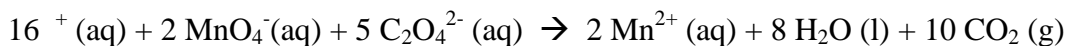
3. Calculate the standard cell potential, E° , for the reaction above given the following half reactions:



- (A) 0.04 V
(B) 1.56 V
(C) -1.56 V
(D) -0.04 V



4. What can be stated about the galvanic cell with the overall balanced reaction above?
(A) Aluminum is reduced
(B) Aluminum is oxidized
(C) The voltage is negative since it is thermodynamically favorable
(D) The voltage is positive since it is thermodynamically unfavorable



5. If the half-cell containing 1.00 M KMnO_4 (aq) is replaced with a half-cell containing 5.00 M KMnO_4 (aq), what will be the effect on the system?
(A) The voltage will increase and the amount of CO_2 (g) will increase.
(B) The voltage will increase and the amount of CO_2 (g) will decrease.
(C) The voltage will decrease and the amount of CO_2 (g) will increase.
(D) The voltage will decrease and the amount of CO_2 (g) will decrease.