



TRANSITION METALS (G)

Write a balanced equation for each of the following ligand substitution reactions.

- 1 Addition of ammonia (aq) to a solution containing $[\text{Co}(\text{H}_2\text{O})_6]^{2+}$



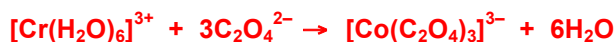
- 2 Addition of concentrated hydrochloric acid to a solution containing $[\text{Fe}(\text{H}_2\text{O})_6]^{3+}$



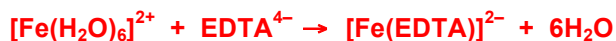
- 3 Addition of 1,2-aminoethane to a solution containing $[\text{Co}(\text{NH}_3)_6]^{2+}$



- 4 Addition of sodium ethanedioate (aq) to a solution containing $[\text{Cr}(\text{H}_2\text{O})_6]^{3+}$



- 5 Addition of sodium EDTA (aq) to a solution containing $[\text{Fe}(\text{H}_2\text{O})_6]^{2+}$



- 6 Addition of ammonia (aq) to a solution containing $[\text{Cu}(\text{H}_2\text{O})_6]^{2+}$



- 7 Addition of sodium EDTA (aq) to a solution containing $[\text{Cr}(\text{NH}_2\text{CH}_2\text{CH}_2\text{NH}_2)_3]^{3+}$



- 8 Addition of concentrated hydrofluoric acid to a solution containing $[\text{Cu}(\text{H}_2\text{O})_6]^{2+}$

