

INTRODUCTION TO REDOX CHEMISTRY

Complete the sentences below.

- 1) Oxidation occurs when a substance _____ electrons and _____ in oxidation state.
- 2) Reduction occurs when a substance _____ electrons and _____ in oxidation state.

Determine and then write the oxidation state of the underlined element in the space provided. You must include the "+" or "-" sign in front of the oxidation number.

Example:

Oxidation State: **+6**

- | | |
|---|------------------------|
| 3) $\underline{\text{S}}\text{O}_2$ | Oxidation State: _____ |
| 4) $\text{H}\underline{\text{N}}\text{O}_3$ | Oxidation State: _____ |
| 5) $\underline{\text{Cr}}\text{O}_4^{2-}$ | Oxidation State: _____ |
| 6) $\text{Na}\underline{\text{Cl}}\text{O}_3$ | Oxidation State: _____ |
| 7) $\underline{\text{Mn}}\text{O}_2$ | Oxidation State: _____ |
| 8) $\underline{\text{V}}\text{O}_4^{3-}$ | Oxidation State: _____ |
| 9) $\underline{\text{Mn}}\text{O}_4^{2-}$ | Oxidation State: _____ |
| 10) $\underline{\text{Cr}}_2\text{O}_3$ | Oxidation State: _____ |