

Exercise 9.1

Assigning Oxidation States

1. Determine the oxidation state for each atom in each of the following polyatomic ions.

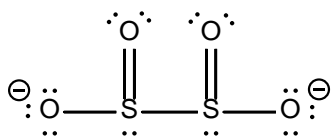


2. Determine the oxidation state for each atom in each of the following ionic compounds.

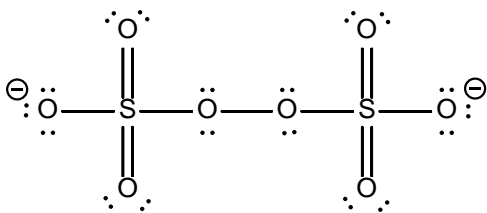


3. Use the Lewis diagrams provided to determine the oxidation state for each atom in each of the following polyatomic ions. *Only one resonance structure has been drawn for each ion; if you would like extra practice drawing resonance structures, try drawing the other ones.*

(a) dithionite: $S_2O_4^{2-}$



(b) peroxodisulfate: $S_2O_8^{2-}$



(c) thiosulfate: $S_2O_3^{2-}$

