

Lecture 20 | Oxidation Numbers

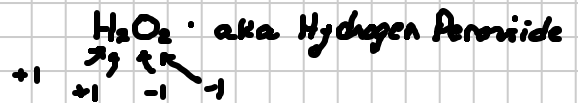
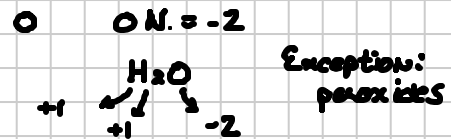
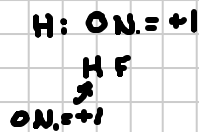
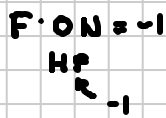
Note Title

11/18/2011

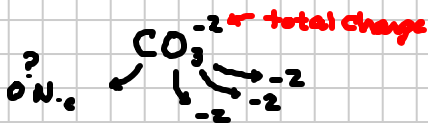
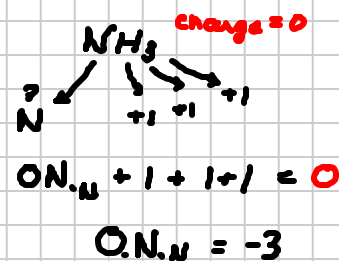
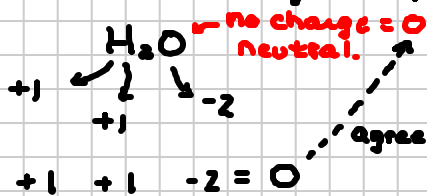
- Oxidation Number (O.N.)** . a charge assignment based upon electron distribution or custody
- . changes in O.N. useful in tracking e⁻ movement

Rules for assigning Oxidation Numbers

- Free elements . O.N. = 0
 - $\text{Fe}_{(s)}$ O.N. = 0
 - $\text{Mg}_{(s)}$ O.N. = 0
 - $\text{N}_2(g)$ O.N. = 0
 - $\text{Cl}_2(g)$ O.N. = 0
- Monatomic Ions . O.N. = charge
 - $\text{Na}^+_{(aq)}$ O.N. = +1
 - $\text{Cl}^-_{(aq)}$ O.N. = -1
- F, O, H in compounds



4) Sum of O.N. = Charge on species



$\text{O.N.}_C - 2 - 2 - 2 = -2$

$\text{O.N.}_C = +4$