Active Metals Activity

Mg Cu Zn Ag – arrange

most active

least active

$Mg \rightarrow Mg^{2+} + 2e^-$

$Zn \rightarrow Zn^{2+} + 2e^-$

Cu

Ag

oxidation

LEO

least

most

Metal solutions

Mg^{2+}

Zn^{2+}

Text p. 718

reduction

$Cu^{2+} + 2e^- \rightarrow Cu$

GER

$Ag^+ + e^- \rightarrow Ag$

Apr 16-7:32 PM

Assigning Oxidation Numbers

Text- p.724 "Rules"

1. $\overset{+}{Na}\overset{-}{Cl}$ (ion charges)
2. Element = 0 e.g. $\overset{0}{Ag}$, $\overset{0}{H_2}$ H–H
3. Compound overall = 0
   $\overset{+2}{Mg}\overset{(-1)2}{Cl_2} = 0$
4. H in compounds = +1 (except hydrides = -1)
5. O (oxygen) in compounds = -2 (except peroxides = -1)
   e.g. H_2O $+2 - 2 = 0$
6. Covalent compounds (no H or O) the more electronegative atom gets neg. charge of ion. e.g. $\overset{+3}{N}\overset{-1}{F_3}$
   $+3 - 3 = 0$

   e.g. $\overset{-3}{N}\overset{+1}{H_3}$
   $-3 + 3$
7. Sum of oxid. #'s polyatomic (complex) ions is the charge of ion.
   e.g. carbonate $\overset{+4}{C}\overset{-2}{O_3}^{2-}$
   $+4 - 6 = -2$

   e.g. $\overset{-2}{C_2}\overset{+1}{H_4}$
   $-4 + 4$

Apr 16-7:56 PM