

Chemistry  $p^+ = e^-$  mass atomic #  $p^+ - \text{atomic} \#$  neutrons

6  
C  
12

Carbon  
atomic #  
atomic mass  $p^+ + n^0$

$p^+$   $n^0$   $e^-$

Location Nucleus Nucleus Shell/orbital

function Chemical ID Stabilizing Force Reactivity Inert/Reactive Bond

C H O N P S  
Na K Ca Cl Mg  
Fe Cu Zn Se Mo F  
I Mn Co Li Sr Al  
Si

$e^- = \text{bonding}$  valence  $e^-$

Octet Rule  
1st =  $2e^-$   
all other shells =  $8e^-$

\*H He except. Reactive\*  $< 8e^-$  in valence shell  
Inert  $8e^-$  in valence shell

6  
C  
12

53  
I  
127

Molecule  $H_2O$  2 or more atoms  
Compound  $H_2O$  2 different atoms

$C_6H_{12}O_6$  ← Some elements that do not form compound. →