

Metals and their Compounds

Lecture 6.2

Transition metals (23.7 and Ch 24 BLB)

Examples of *ligands*

Anions

Cl^- (chloride)
 Br^- (bromide)
 I^- (iodide)
 NO_2^- (nitrite)
 CN^- (cyanide)
 OH^- (hydroxide)
 SCN^- (thiocyanate)

Neutral molecules

H_2O (water)
 NH_3 (ammonia)
 CO (carbon monoxide)
 $\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{NH}_2$
ethylene diammine (en)

Why does a ligand bind to a metal ?

Ligand has something that the metal wants -
a *pair* of electrons.