

CONCEPT: METAL-CHELATE COMPLEXES

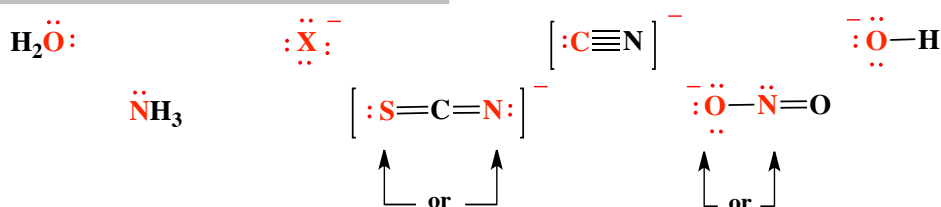
A ligand can be thought of as a _____ because it bonds to a central metal cation in a complex ion by using its lone pair.

Ligands are characterized by the number of elements in the molecule that can donate a lone pair.

- _____ agents are compounds that use their lone pairs to grab onto metal cations.

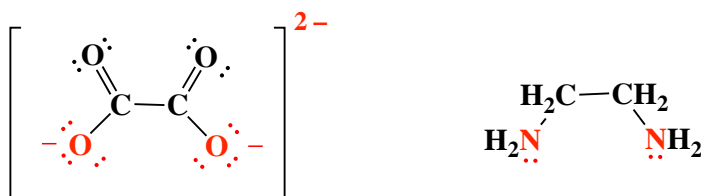
Ligands that possess only _____ element(s) able to donate a lone pair are referred to as **monodentate ligands**.

Monodentate ("One-toothed")



Ligands that possess _____ element(s) able to donate a lone pair are referred to as **bidentate ligands**.

Bidentate ("Two-toothed")



Ligands that possess _____ element(s) able to donate a lone pair are referred to as **polydentate ligands**.

Polydentate ("Many-toothed")

