

CONCEPT: COMPLEX IONS

- An overall _____ adduct that specifically has a _____ metal cation at its center covalently bonded to _____(s).
 - The complex ion is always written in _____.
 - An example of a complex ion is shown as:

Complex Ion Formation		
Metal Cation	Ligands	Complex Ion (Adduct)
<div>Copper (III) Ion</div> Cu^{3+}	<div>Ammonia</div> 4NH_3	<div></div> $\left[\text{Cu} \right]^{-}$

EXAMPLE: Provide the complex ion structure when a Ti^{4+} ion combines with 6 carbon monoxide molecules.

PRACTICE: Provide the complex ion structure when Cu^+ combines with 2 hydroxide ions and 2 cyanide ions.

PRACTICE: Provide the complex ion structure when a Cobalt (IV) ion combines with 2 chloride anions and 2 water molecules.