

# **IUPAC NAME OF CO-ORDINATION COMPOUND**

# **ISOMERISM IN CO-ORDINATION COMPOUND**

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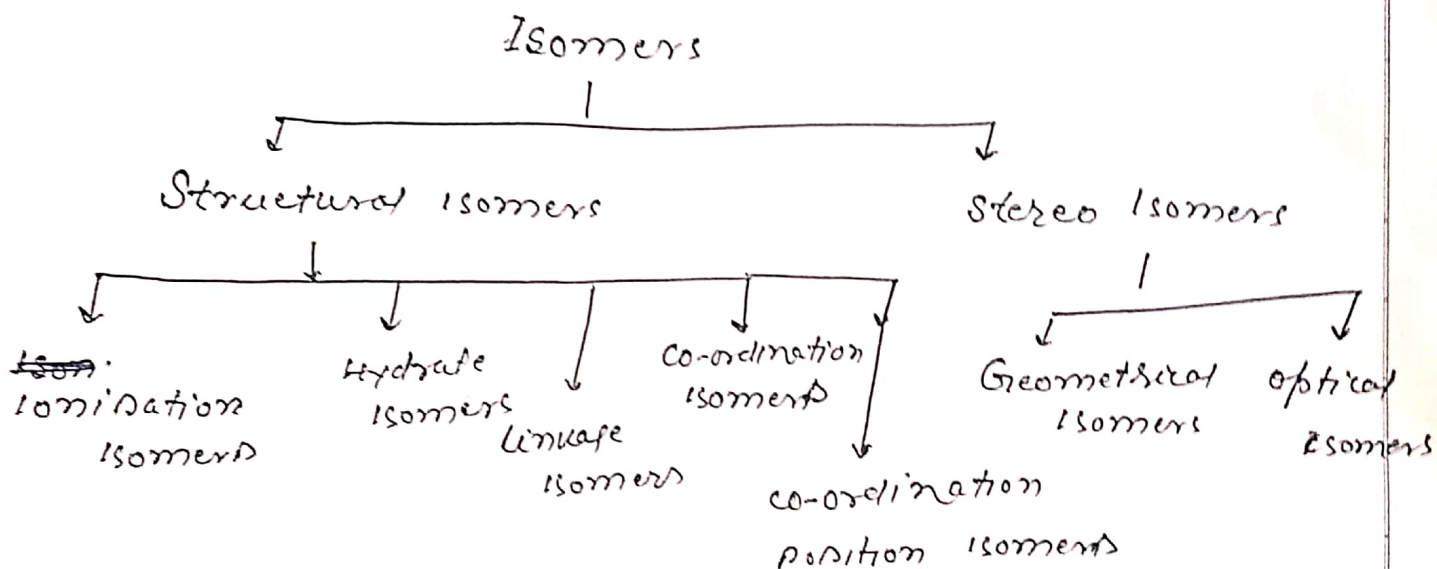
IUPAC NAME OF Co-ordination Compounds.

Complexes	IUPAC Name
(i) $[Ag(NH_3)_2]Cl$	diammine silver(I) chloride
(ii) $K_3[Fe(CN)_6]$	Potassium hexacyanoferrate(III)
(iii) $[Cu(NH_3)_4]SO_4$	tetraammine copper(II) sulfate
(iv) $[CoCl_3(NH_3)_3]$	triamminetrichlorocobalt(III)
(v) $[Mn_3(CO)_{12}]$	dodecacarbonyltrimanganese(0)
(vi) $Na_2[CrOF_4]$	Sodium tetrafluoroxychromate(IV)
(vii) $[CoCl_2(en)_2]SO_4$	dichlorobis(ethylenediamine)cobalt(II) sulfate
(viii) $[(NH_3)_5Cr-OH-Cr(NH_3)_5]Cl_5$	Pentaammine chromium(III)-μ-hydroxo pentaammine chromium(III) chloride
(ix) $[Ni(dmg)_2]$	bis(dimethylglyoximate)nickel(II)
(x) $[(en)_2Co \begin{matrix} NH \\ / \quad \backslash \\ OH \end{matrix} Co(en)_2]^{3+}$	<del>bis(ethylenediamine)bis(oxo)dicobalt(III) chloride</del> bis(ethylenediamine)cobalt(III)-μ-imido-μ-hydroxobis(ethylenediamine)cobalt(III) ion
(xi) $[PtCl_2(NH_3)_4][PtCl_4]$	tetraamminedichloroplatinum(IV) tetrachloroplatinate(II)
(xii) $[CoCl_2(NH_3)_4]_3[Cr(CN)_6]$	tetraamminedichlorocobalt(III) hexacyanochromate(III)
(xiii) $[Ni(CO)_4]$	tetracarbonylnickel(0)
(xiv) $Na_3[CrF_6]$	Sodium hexafluorochromate(III)
(xv) $[Fe(C_5H_5)_2]$	bis(cyclopentadienyl)iron(II)

# ISOMERISM IN CO-ORDINATION COMPOUNDS

Two or more different compounds having same molecular formula but different structure/arrangement and their properties. Such compounds are isomers to each other.

Different type of isomerism associated with complexes is given below.



## Structural Isomers

Such isomers are similar in their molecular formula but differ in their structures. i.e. differ in position of ligand / point of attachment.

- (i) Ionisation isomers
- (ii) Hydrate isomers
- (iii) Linkage isomers
- (iv) Co-ordination isomers
- (v) Co-ordination position isomers