EngineeringRise

# IUPAC nomenclature and isomerism of coordination compounds

Formulas and units, JEE Main. Status: Reviewed on 2026-11-20.

| Result | Formula | Units or note |
|---|---|---|
| **Name order** | cation, then anion; inside: ligands alphabetical, metal, oxidation state (Roman) | n/a (text) |
| **Prefixes** | di tri tetra penta hexa; bis tris tetrakis for composite names | n/a (text) |
| **Anionic complex** | metal name ends in -ate; ferrate, cuprate, argentate, aurate, plumbate, stannate Valid when: when the complex ion is negatively charged | n/a (text) |
| **Square planar MA2B2, Mabcd** | 2 and 3 geometrical isomers Valid when: square planar complexes with monodentate ligands only | dimensionless integer |
| **Octahedral MA4B2, MA3B3** | 2 each (cis/trans; fac/mer) Valid when: octahedral complexes with monodentate ligands only | dimensionless integer |
| **[M(AA)2B2], [M(AA)3]** | 3 and 2 stereoisomers (cis pair + trans; enantiomer pair) Valid when: octahedral complexes with a symmetrical bidentate ligand AA | dimensionless integer |
| **Structural isomer types** | ionisation, hydrate, linkage, coordination | n/a (text) |

Full lesson with worked examples:
https://www.engineeringrise.in/learn/learn/jee-main/chemistry/coordination-compounds/iupac-nomenclature-and-isomerism-of-coord

EngineeringRise is an unofficial study site. It is not affiliated with NTA, the IITs, BITS, VIT, SRM or any exam body.