

Metals and their Compounds

Lecture 7.4

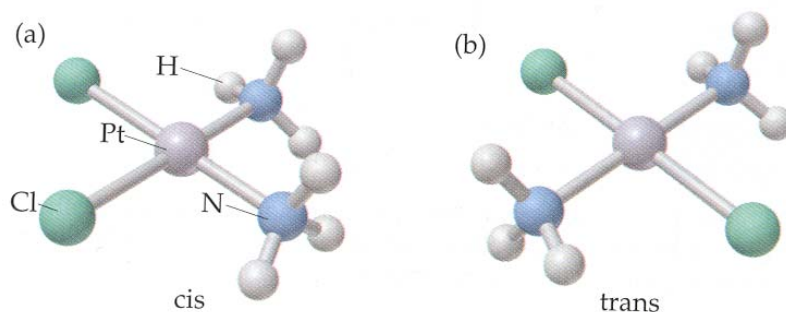
Coordination compounds

Isomers - (section 24.3 in BLB)

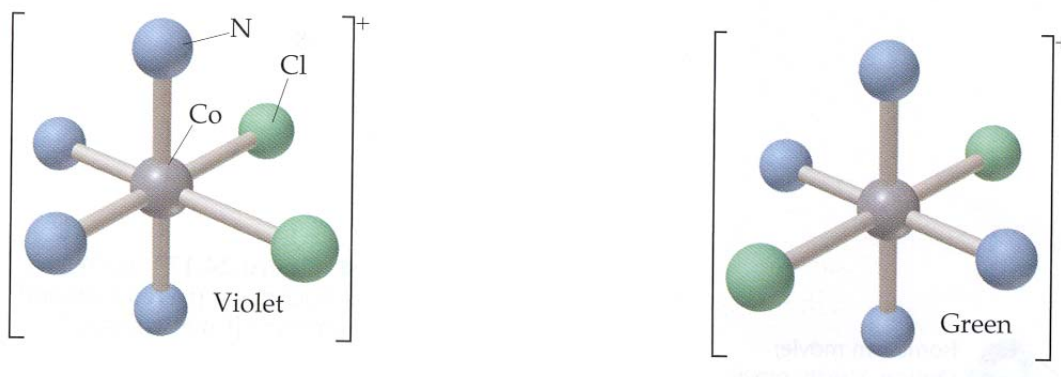
Linkage isomers - seen above for nitrite ion

Stereo-isomers - different arrangement of atoms in space.

$[\text{PtCl}_2(\text{NH}_3)_2]$ *cis* and *trans* isomers. *Cis* isomer is called cis-platin and is a useful anti-cancer drug.



Trans isomer is useless as drug - shape essential !



$[\text{CoCl}_2(\text{NH}_3)_4]^+$ violet *cis* and green *trans* isomers

$[\text{CrCl}_3(\text{NH}_3)_3]$ also shows *mer* and *fac* isomers.