

Stereoisomerism in complex ions

Textbook page 409-412. You may also wish to revisit Y12 stereoisomerism, p.203-205 and Chirality in Y13 480-481.

Define the following terms

- Stereoisomerism
- Optical isomerism

Make notes on complex ions.

Use the following questions as a guide

1. Show how cis-trans isomerism can be observed in square planar complexes. You may wish to base your explanation using figure 2.
2. Show how complexes with two different monodentate ligands can be cis-trans isomers.
3. Show how complexes with two different bidentate ligands can be cis-trans isomers.
4. Show how cis isomers of complex ions with two bidentate ligands can be optical isomers.
5. Show how complexes with three bidentate ligands can be optical isomers.