OCR (B) Chemistry A-Level

PL7 - Isomerism

Flashcards

What is an optical isomer?

What is an optical isomer?

- Optical isomerism is a type of **stereoisomerism** found in molecules that contain a chiral centre.
- Optical isomers or *enantiomers* are non-superimposable, mirror images of each other.

What is chirality?

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In organic chemistry, a chiral centre is in the form of a carbon atom bonded to four different groups.

What is an example of optical isomerism?

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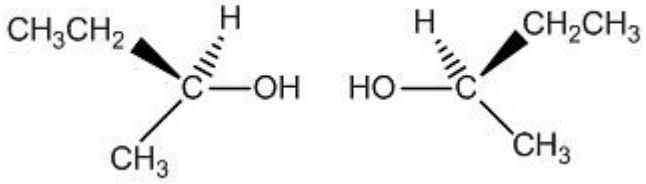
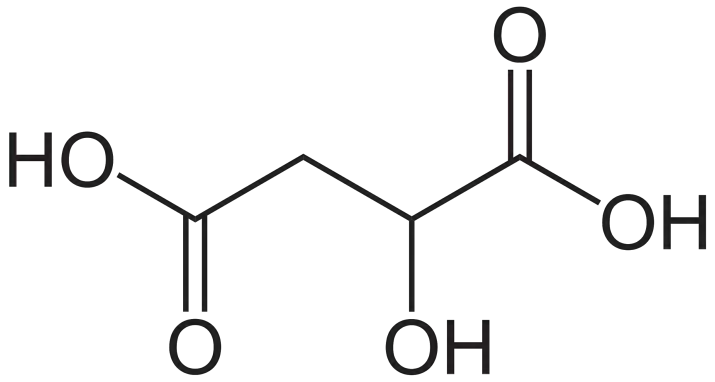
E.g Butan-2-ol



You can see the central carbon is chiral- it is attached to four different groups: -OH, -CH_3, -H, and -CH_2CH_3. You can also see that the two isomers are mirror images of each other and non-superimposable.

What carbon is chiral in this molecule?



What carbon is chiral in this molecule?

This carbon is chiral as it is bonded to 4 different groups: -H, -OH, -COOH, -CH_2COOH