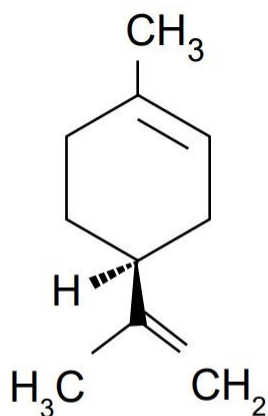
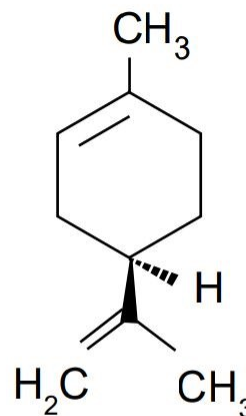


Properties of stereoisomers – student sheet



(*R*) - (+) - Limonene



(*S*) - (-) - Limonene

Limonene is a terpene present in orange and lemon oils. The enantiomers of limonene have markedly different odours – unscrew the tops of the bottles and sniff.

Questions

Would you expect the two stereoisomers of limonene to behave differently in their:

1. Reaction with bromine?
2. Reduction with hydrogen?
3. Melting point?
4. Boiling point?
5. Infrared spectrum?
6. Effect on plane of polarisation of plane-polarised light?
7. Combustion?
8. Mass spectrum?

Explain your answers.

Health, safety and technical notes

- Read our standard health and safety guidance here <https://rsc.li/3fJh126>
- Students must wear eye protection if carrying out steam distillation.
- Not needed for sniffing the stereoisomers.