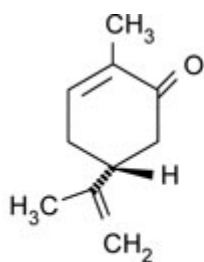
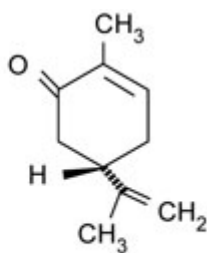


Properties of the carvones

The two enantiomers of carvone have different odours – unscrew the tops of the bottles and sniff.



(R) - (-) - Carvone



(S) - (+) - Carvone

Questions

1. What are the similarities and differences in the structural formulae of the limonenes and the carvones?
2. Would you expect the two stereoisomers of carvone to behave differently in their:
 - a. reaction with bromine;
 - b. reduction with hydrogen;
 - c. melting point;
 - d. boiling point;
 - e. infrared spectrum;
 - f. effect on plane of polarisation of plane-polarised light;
 - g. combustion; and
 - h. mass spectrum.

Explain your answers.

Health & Safety

Both enantiomers are skin sensitisers but there is no hazard from smelling the vapours in this manner, so no eye protection is needed.

Credits

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Health & safety checked May 2018

Page last updated August 2018