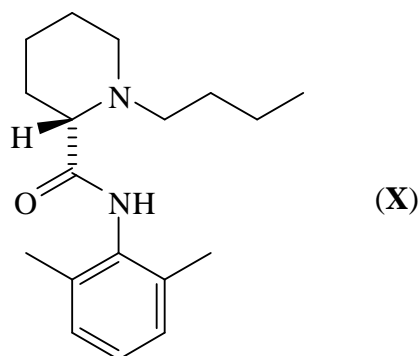


Marks
7

- Bupivacaine is the active molecule in some local anaesthetics. Of the two enantiomers, the one shown below (**X**) is the more effective.



What is the molecular formula of (**X**)?

Calculate the m/z value for the major peak you would expect to see for the molecular ion in the high resolution mass spectrum.

[Atomic masses: $^1\text{H} = 1.0078$; $^{12}\text{C} = 12.0000$; $^{16}\text{O} = 15.9949$; $^{14}\text{N} = 14.0031$]

Answer:

List the substituents attached to the stereogenic centre in descending order of priority according to the sequence rule.

highest priority

lowest priority

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What is the absolute stereochemistry of (**X**)? Write (*R*) or (*S*).

Name the functional groups present in (**X**).