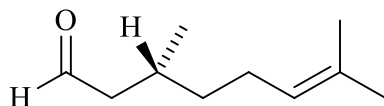


**Marks**  
**2**

- The structure of (+)-citronellal, a widely occurring natural product, is shown below.



Which of the following best describes (+)-citronellal?  
achiral compound, racemic mixture,  
(*R*)-enantiomer, or (*S*)-enantiomer

**(*R*)**

Is it possible to obtain (*Z*) and (*E*) isomers of (+)-citronellal? Give a reason for your answer.

**No. One end of the double bond has two identical groups (methyl) attached to it.**