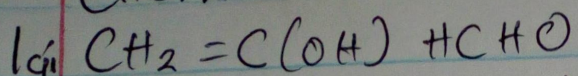


19/mhso1/235 MBBS LE BILE CEHME MOTUNROZ

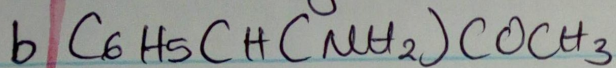
CHEM 102 ASSIGNMENT 5



i. Alkene group [double bond]

ii. Hydroxyl group [OH]

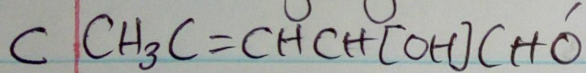
iii. Aldehyde (CHO)



i. Amino group [NH_2]

ii. Aromatic group [phenyl group]

iii. Carbonyl group $\text{C}=\text{O}$



i. Aldehyde group

ii. Hydroxyl group

iii. Alkene group [double bond]

2) $\text{Conc. in mol/dm}^3 = \frac{\text{Conc in g/dm}^3}{\text{molar mass g/mol}}$

$$[\alpha]_D^{25} = \frac{\alpha}{l \times c}$$

where l = length of sample tube

c = mass/volume

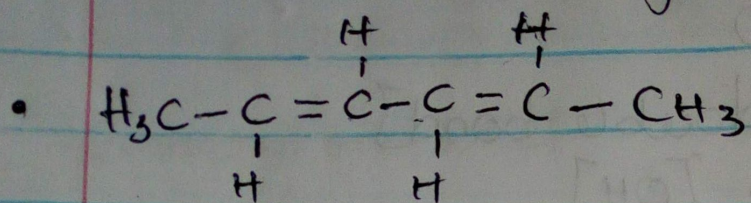
α = observed rotation

$$\therefore [\alpha]_D^{25} = \frac{\alpha}{l \times c}; \quad \alpha = +1.0, \quad c = \frac{0.856}{10}$$

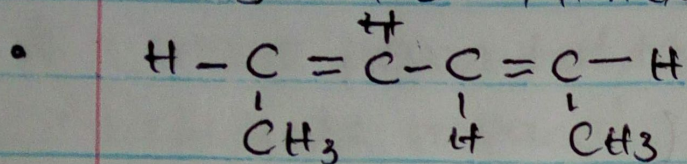
$$= \frac{+1.0}{0.0856} = \underline{\underline{11.68^\circ}} = 0.0856 \text{ g/cm}^3$$

The specific rotation of tartaric acid is 11.68°

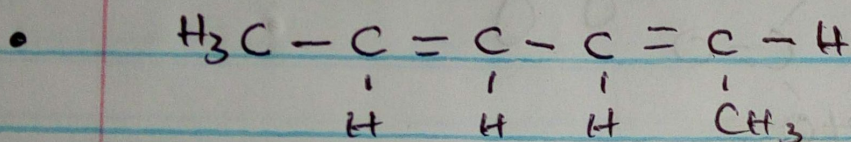
3 Geometric Isomers of Hex-2,4-diene



trans-trans-2,4-hexadiene

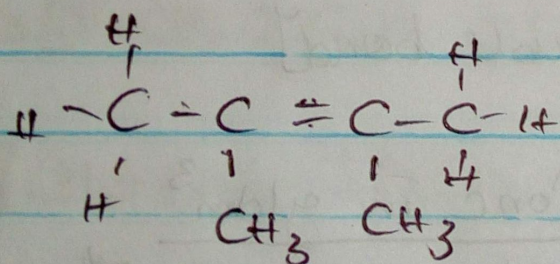


cis-cis-2,4-hexadiene

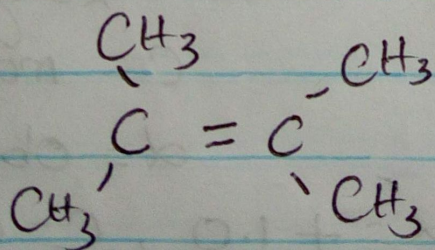


trans-cis-2,4-hexadiene

Geometric isomers of 2,3-dimethylbut-2-ene



2,3-dimethylbut-2-ene



Note! It does not have geometrical isomers because there are two identical groups

attached to the same carbon of the double bond.