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Matric no: 19/MHS02/063

Dept: Nursing science

Course code: CHM 102

Assignment on stereochemistry

1. (I) Alkanols (II) Amines (III) Alkanols

$$2. \text{ Specific rotation} = \frac{\text{observed rotation} (^{\circ})}{\text{Conc. g/cm}^3 \times \text{path length of simple cell in dm}}$$

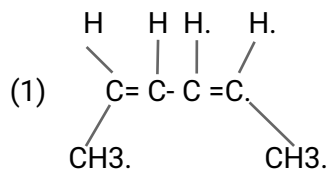
$$\text{Observed rotation} = +1.0^{\circ}$$

$$\text{Path length of simple cell} = 1.0 \text{ dm}$$

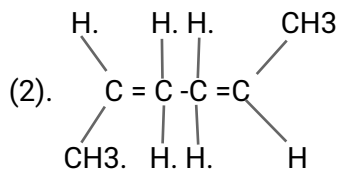
$$\text{Conc. g/cm}^3 = \frac{\text{Mass (g)}}{\text{Volume (cm}^3)} = \frac{0.856 \text{ g}}{10 \text{ cm}^3} = 0.0856 \text{ g/cm}^3$$

$$\begin{aligned} \text{Specific rotation} &= \frac{+1.0^{\circ}}{0.0856 \times 1.0} \\ &= 11.68^{\circ} \text{ g}^{-1} \text{ cm}^3 \text{ dm}^{-1} \end{aligned}$$

3. Hex-2,4-diene



Cis-Hexa-2,3-diene.



Trans-Hexa-2,3-diene.