

ORAFU SOLOMON CHINONSO

CHM 102

HUMAN ANATOMY

19/MHS03/011

STEREOCHEMISTRY AND FUNCTIONAL GROUPS.

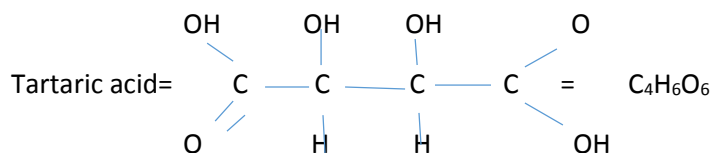
1. Name the functional groups present in each of the following molecules

- i) $\text{CH}_2\text{C}(\text{OH})\text{HCHO}$ ----- Formyl group (aldehyde) group(CHO), Hydroxyl group(OH), Alkene group
- ii) $\text{C}_6\text{H}_5\text{CH}(\text{NH}_2)\text{COCH}_3$ ----- Amines, carbonyl group, aromatic
- iii) $\text{CH}_3\text{C}=\text{CHCH}(\text{OH})\text{CHO}$ ----- Alkene, hydroxyl group, aldehyde group.

2. Concentration (mol/dm^3) = $\frac{\text{conc. (g}/\text{dm}^3)}{\text{molar mass (g/mol)}}$

$$[\alpha]_D^{25} = \alpha$$

C.L



Molar mass = 150 g/mol

0.856g-----10cm³

Xg-----1000cm³

$$\frac{0.856 \times 1000}{10} = 85.6 \text{g}/\text{dm}^3$$

10

Concentration in g/cm^3 = $\frac{\text{concentration in (g}/\text{dm}^3)}{1000}$

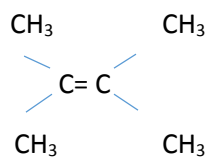
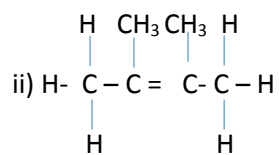
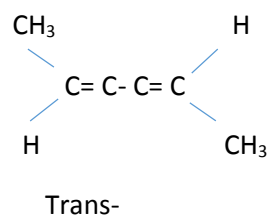
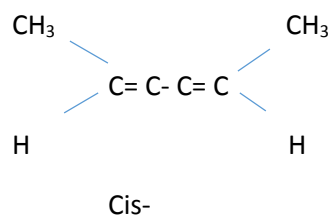
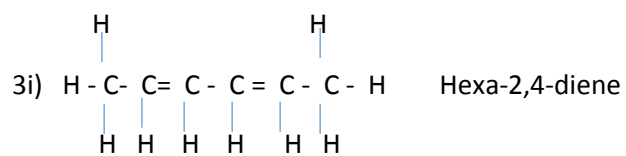
1000

$$= \frac{85.6}{1000} = 0.0856 \text{g}/\text{cm}^3$$

1000

$$[\alpha]_D^{25} = \alpha = \frac{4.10^\circ}{0.0856} = 11.68^\circ$$

C.L 0.0856



2-3 dimethylbut-2-ene

No geometric isomer