

SHIKH WILLIAMS CINAHEMEN

19/EN905/059

MECHATRONICS

GMM 102.

1. Alcohols are classified into primary, Secondary and Tertiary Alcohol.

(i) Primary Alcohol: it is an alcohol in which the carbon atom with the OH group is attached to one other carbon atom. Its general formula is RCH_2OH .

e.g. 1-hexanol

(ii) Secondary alcohol: it is one in which the carbon atom with the OH group is attached to two other carbon atoms. Its general formula is R_2CHOH . e.g. 3-hexanol

(iii) Tertiary alcohol: is one in which the carbon atom with the OH group is attached to three carbon atoms.

Its general formula is R_3COH .

e.g. 3,3-dibromo-2-methyl-2-butanol;

2. Solubility.

Lower alcohols with up to three carbon atoms in their molecules are soluble in water because these lower alcohols can form hydrogen bond with water molecules. The water solubility of alcohols decreases with increasing relative molecular mass.

All monohydric alcohols are soluble in organic solvents. The solubility of simple alcohols and polyhydric alcohols is largely due to their ability to form hydrogen bonds with water molecules.

3. Steps in production of Ethanol

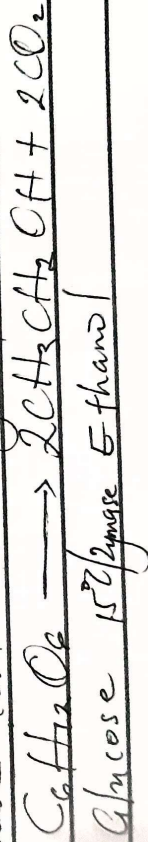
(b) Catalytic cracking of carbohydrates to maltose

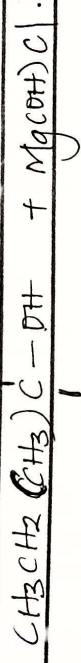
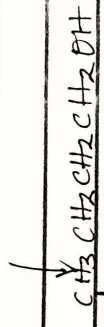
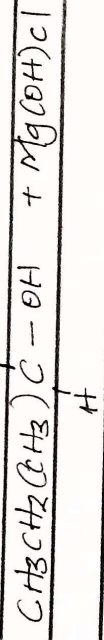
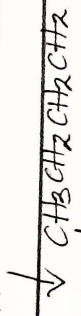
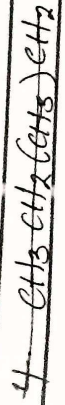


(ii) breaking down maltose into glucose on addition of yeast which contains maltase at $15^\circ C$



(iii) glucose at $15^\circ C$ converted into alcohol by enzymes Zymase contained in yeast





8. propanol - propan-2-ol

