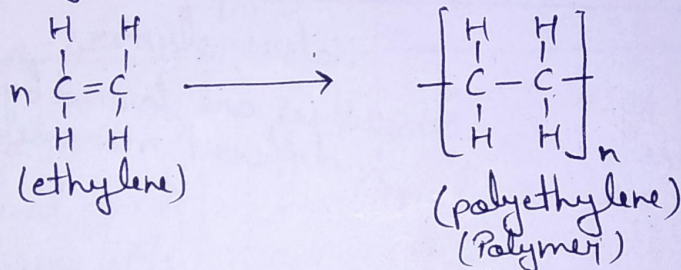


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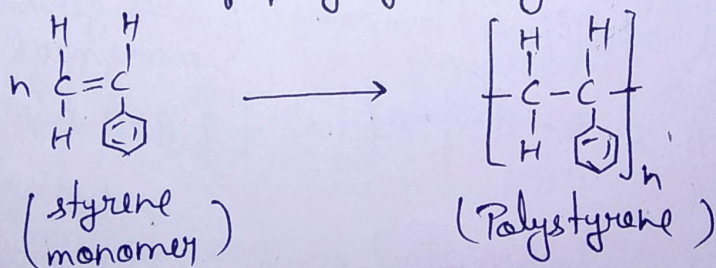
(Basic concepts of Polymer)

= Polymer - These are high molecular weight compounds built up by a large number of small molecules (called monomers).

eg. Polyethylene is formed by large number of ethylene (C_2H_4) molecules.



= Monomer - The small units which combine with each other to form polymer molecules, are termed as monomers.
eg. Formation of polystyrene by monomer styrene.

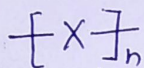


Repeat Unit - A complete unit which on repetition gives the whole chain of polymer is known as repeat unit of polymer.

eg. In polymer $[X-Y-X-Y]_n$, $-X-Y-$ is the repeat unit.

Degree of Polymerisation - Total number of single monomer units combined together to form a polymer is known as degree of polymerisation.

eg,

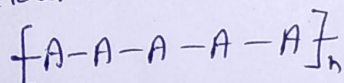


$n \rightarrow$ degree of polymerisation.

classification of Polymers

\Rightarrow On the basis of monomer unit

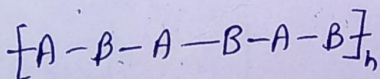
Homopolymer
(these are formed by identical monomers)



Heteropolymers
(these are formed by different monomers)

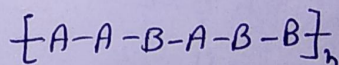
Regular

(regular arrangement of different monomers)



Irregular

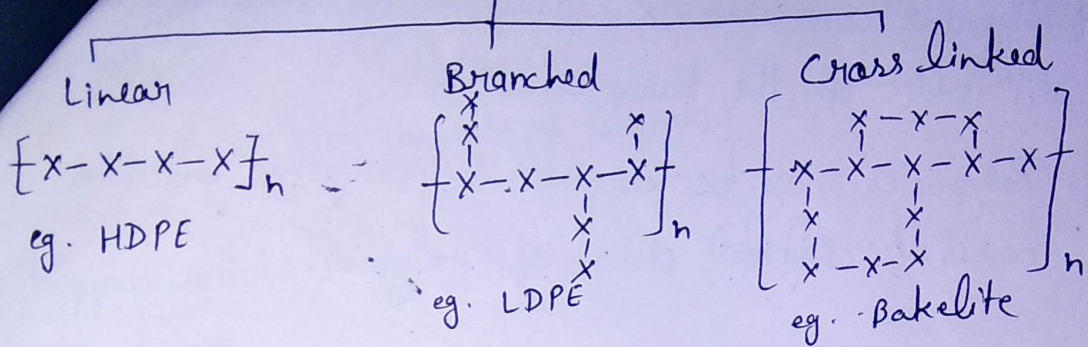
(irregular arrangement of monomers)



\Rightarrow on the basis of monomer unit
OR
on the basis of structure -

According to this classification polymers are of three types.

Polymer



On the basis of tacticity / configuration of macromolecule / stereostructure of polymer

Polymer

