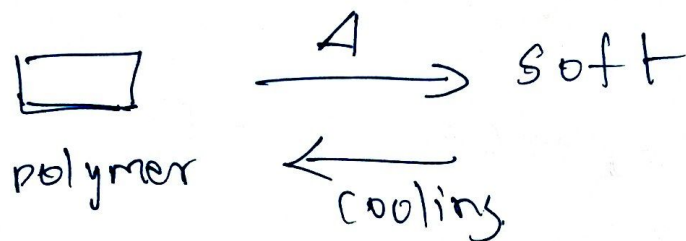


classifications

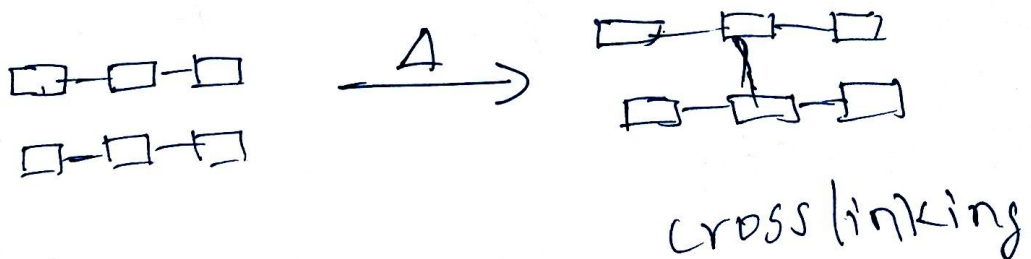
Based on Thermal response

(a) Thermoplastic

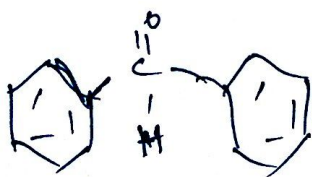


NO chemical change during heating

(b) Thermosetting



Phenol resin



cross linking

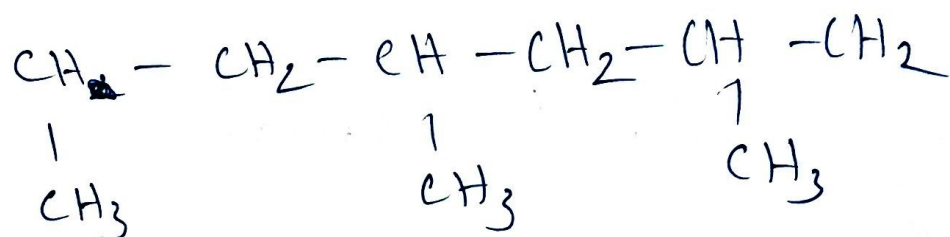
Δ Further heat

Charred
Burns

Stereo regularity | Tacticity

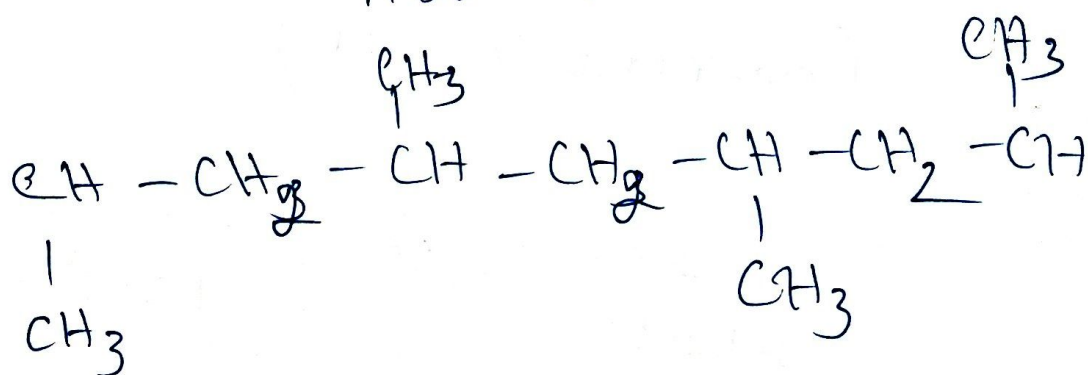
Orientation of pendant (side) groups

(a) Same side - ISOTACTIC

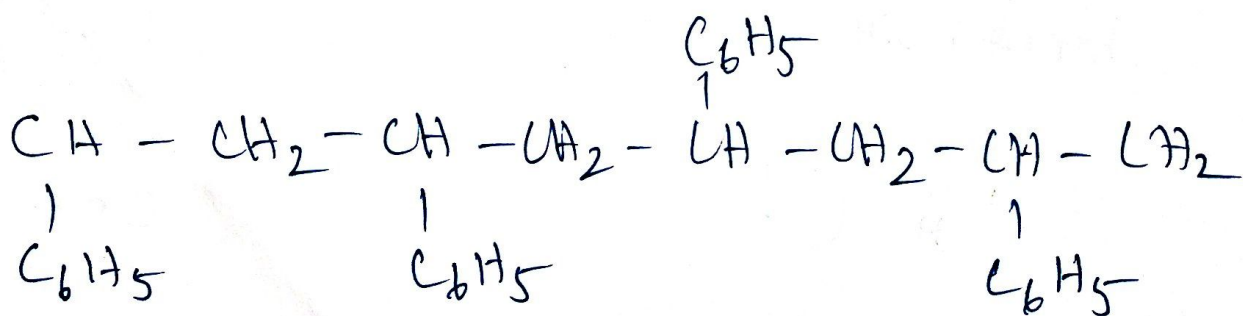


(b) SYNTIOTACTIC

- Above & below alternative

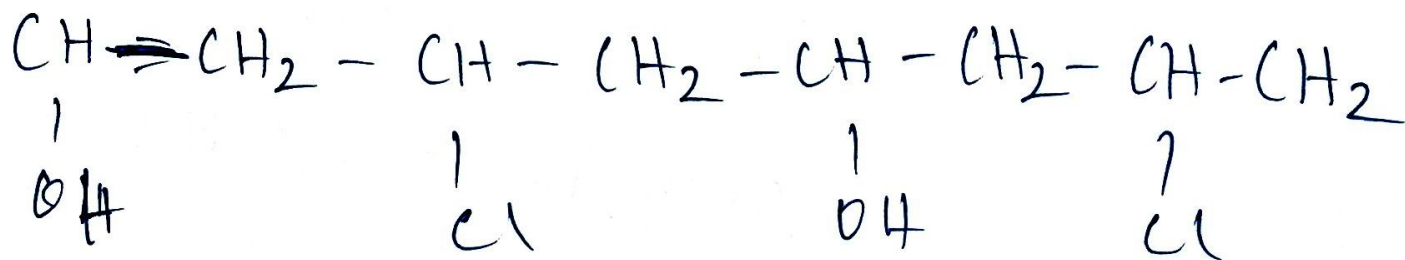
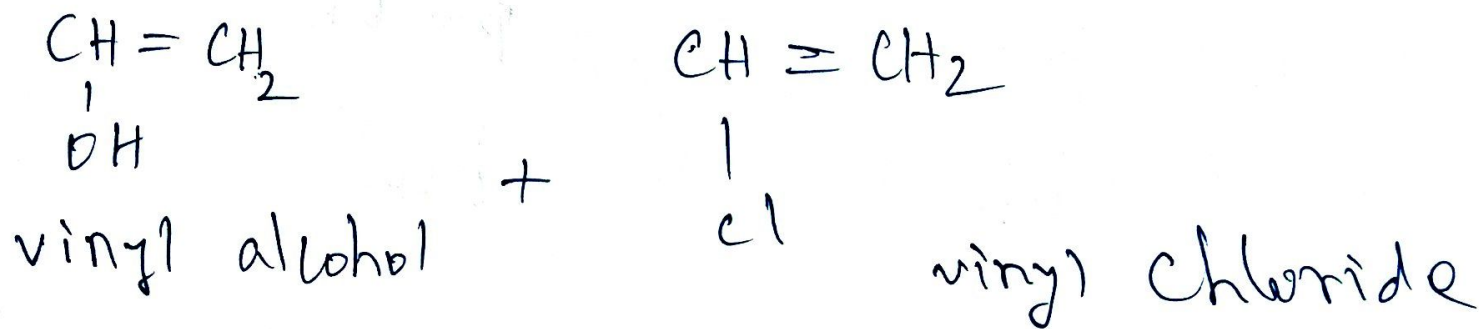


(c) ATACTIC - irregularly (Random)



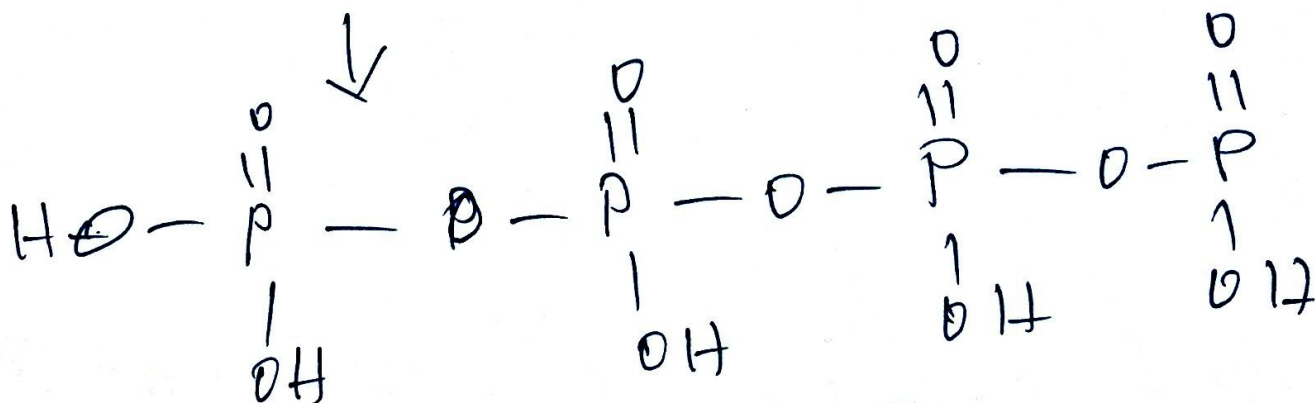
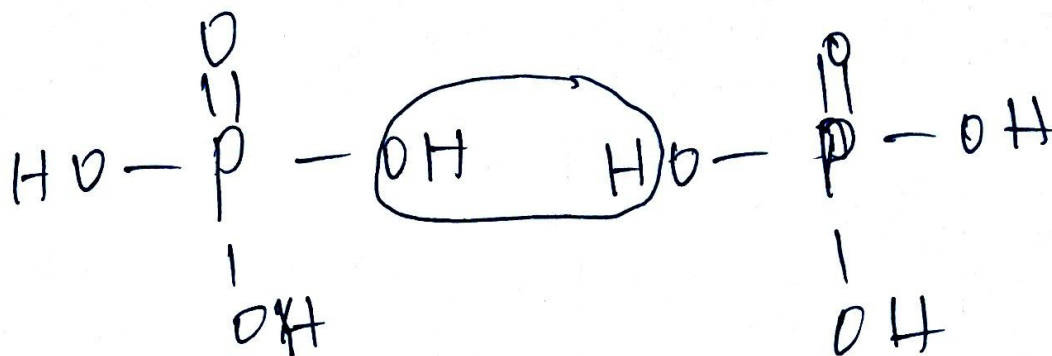
Heteropolymer (or) Copolymer

Two or more monomer



Inorganic

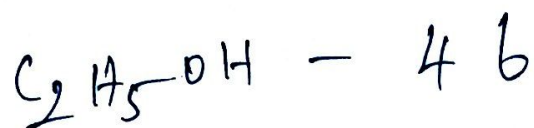
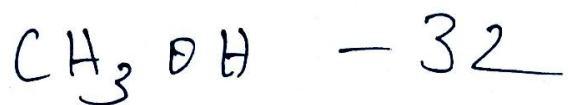
Phosphoric Acid



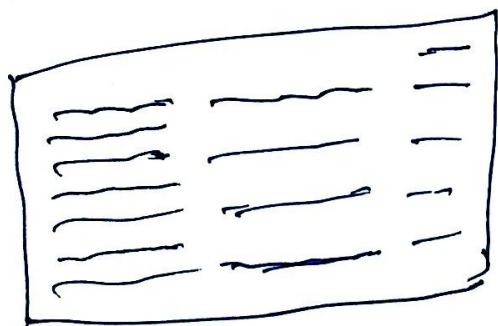
polyphosphoric Acid

m. wt of polymer

Discrete molecules



But polymer sample



polyethylene

various m. wt for same sample

5 molecules \rightarrow 2800

7 molecules \rightarrow 5600

4 molecules \rightarrow 11200

number
of molecules