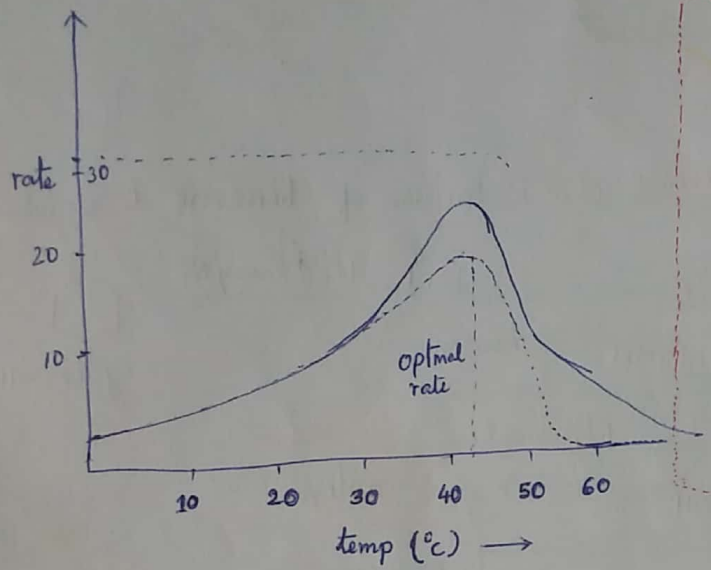
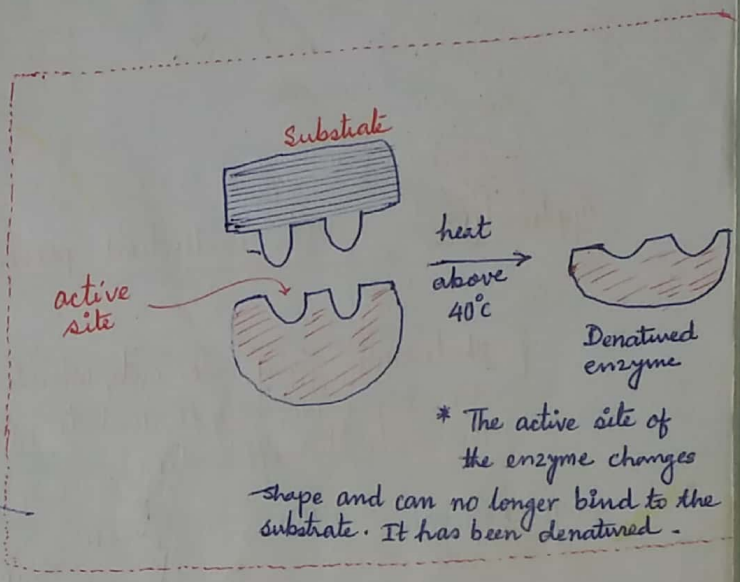
Denaturation of enzyme: Denatuation is a process in which enzymes lose the quaterary structues tertiary structue and secondary structue which are present in their native state by the application of some external stress or compound such as strong acid or base, a concentrated inorganic salt, an organic solvent, (e.g. alcohol or chloroform) or radiation or heat.





Man-made catalysts: (1) Raney Nickel
(2) Vanadium pentoxide.

1) Raney Nickel: (i) Named after American engineer Murray Raney. who first used it for hydrogenation of vegetable oils to make Dalda.

(ii) It is a nickel-alluminium aloy and is prepared by dissolving nickel in molten alluminium and then cooling (or quenching).

(iii) During cooling (or quenching) a third metal, such as zinc or chromium, are added to enhance the activity of the resulting catalyst. The third metal is called a 'promoter'. The promoter changes the mixture from a binary alloy to a ternary alloy which can lead to different quenching and leaching properties during activation.

(iv) Depending on the Ni:Al ratio, quenching produces a number of different phases.