Glossary

Enzyme: protein catalysts that speed up the rate of chemical reactions in living organisms.

Coenzyme: non-protein component of an enzyme (e.g. FMN) that assists in the reaction.

Conformational flexibility: Movement of flexibility of the structure of enzymes.

Induced fit model: Exposure of an enzyme to a substrate (key) causes the active site of the enzyme (lock) to change shape in order to allow the enzyme and substrate to bind forming an enzyme-substrate complex.

Biotechnology: is the use of living systems and organisms to develop or make products.

Activation energy: the minimum quantity of energy that reacting species must possess in order to undergo a specific reaction.

Electrostatic catalysis: Enzymes stabilise the distribution of electrical charge in the transition states of the reaction.

Covalent catalysis: Reaction involving the formation of an intermediate state in which the substrate is covalently attached to a nucleophilic group on the enzyme.

Quantum tunneling: A reaction where a small reactant becomes a product when there isn't enough energy in the mix to let the reaction occur by classical routes.

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