

Biotransformation of naphthalene by *Aspergillus ochraceus*

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ABSTRACT - In biotransformation there is addition, deletion, substitution and hydroxylation reaction takes place by phase I enzymatic reaction while conjugation reaction take place in phase II enzymatic reaction. Most enzymatic reaction carried in liver tissue of animal and also in lung, kidney, skin and intestine to less extent. Microorganisms have ability to modify chemically a wide variety of organic compounds. These change are called biological or microbial transformation or more generally bioconversion. Naphthalene is a simplest aromatic hydrocarbon in nature. Polycyclic compounds are environmental pollutants due to their toxic mutagenic and carcinogenic properties. Biotransformation of Naphthalene by *Aspergillus ochraceus* occurs.

Key words - Ribbon fish, Drying methods, Biochemical composition

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Biototechnology employs microorganism as well as higher cell and their active principle with in the aim of achieving desirable conversion of various substrates. The desirable product of biotransformation are formed by enzymatic biotransformation of normal product or chemically synthesized substrate. Biotransformation reaction are also carried out in human body so as to convert xenobiotic toxic substance in to less toxic, easily extractable form. In biotransformation there is addition, deletion, substitution and hydroxylation reaction takes place by phase I enzymatic reaction while conjugation reaction take place in phase II enzymatic reaction. Most enzymatic reaction is carried out in liver tissue of animal and also in lungs, kidney, skin and intestine to less extent. Chemically microbial transformation reaction can be grouped under following categories : Oxidation, reduction, hydrolysis, condensation, and formation of new C-C bonds, introduction of hetrofunction. Oxidation reaction are particularly useful in industrial production (H.J.Rehm and G. Reed). Plant cell culture are being utilized for producing valuable product including secondary metabolites through biotransformation, a technique also utilized with the help of microbes. In this technique low cost

precursors are used as a substrate and are transformed into value added high cost product (Gupta, 2002).

