

Biomimetic studies with synthetic cofactor of MAO B**Babita Veer and Ram Singh**

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Monoamine oxidases B (MAO B; EC 1.4.3.4) is a flavin family enzyme that catalyzes the amine substrates through oxidative deamination process. The flavin mononucleotide (FMN) and flavin adenine dinucleotide (FAD) are 10-substituted isoalloxazine derivatives and also the cofactors of MAO B responsible for the oxidation in biological systems. This enzyme is responsible for the metabolism of neuroactive compounds mainly amines which are present in the central nervous system (CNS).

The study of MAO B with synthetic models is going to improve the design of psychoactive drugs. The chemical models of enzymes, 10-substituted isoalloxazine derivatives, have been used in the metabolism of various drugs and xenobiotics. Selected 10-substituted isoalloxazine derivatives have been synthesized by the modification of existing methods and have been utilized as the model for monoamine oxidase B.

Biography

Babita Veer received her B.Sc. in Physical Sciences from University of Delhi in 2010 and M.Sc. in Chemistry from Indira Gandhi National Open University in 2013. At present she is pursuing her Ph.D. under the supervision of Professor Ram Singh at Delhi Technological University, Delhi. Her research interests lie in the design and synthesis of heterocyclic molecules of medicinal importance and biomimetic reactions

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