



**A concise assessment of electrochemically synthesized polypyrrole
amperometric biosensors- A Review**

Salma Khan and Shruti Peshoria*

*Guru Gobind Singh Indraprastha University, Dwarka, Sec 16-C, Delhi-110078, **INDIA**

Email: shrutipeshoria@gmail.com

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ABSTRACT

Amperometric biosensors have gained an immense popularity in the clinical diagnostic area. Conducting polymers in amperometric biosensors are used to inhibit the reduction of other electroactive species besides the substrate of interest. Polypyrrole is used as a matrix for the enzyme immobilization on its surface electrochemically, owing to its good electrical conducting properties. Hydrogels, polyacrylamide are used to prevent the leaching of this enzyme from the polymer film. With the development of nanotechnology some enzyme less biosensors have also been reported in which nanoparticles act as a recognition site for the analyte. The synergistic combination of biotechnology, nanotechnology and polymer chemistry yields a biological recognition element which when coupled with a compatible transducer device leads to the formation of electrobio composites of polypyrrole. This review describes the use of amperometric biosensors for the detection of glucose and cholesterol.

Keywords: Amperometric, Polypyrrole, Transducer, Biosensors, Enzymes.
