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A REVIEW ON SYNTHESIS AND POTENTIAL APPLICATIONS OF NANOMATERIAL BASED BIO-NANOSENSORS

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ABSTRACT

The target is recognised by biological substances by means of biosensors, which then use output components that can transform the biorecognition event into electrical, optical, or mass-sensitive signals. Common examples of effective biosensors include blood glucose metres, home pregnancy strips, and COVID-19 fast testing. Nano-sensors are essential in the field of nanotechnology for (a) spotting physical and chemical changes, (b) keeping track of biomolecules and biochemical changes in cells, and (c) assessing harmful and polluting substances found in the workplace and the environment.One of these platforms that offer many benefits, such as being affordable, selective, particular, quick, and portable, is the electrochemical biosensor platform. The development ofhigh-sensitivity and decomposition power monitors has resulted from the simultaneous application of the benefits of electrical methods and nanostructures. Over the past few years, research on nanomaterials has evolved swiftly, and some of their potential applications have already been realized. In the foreseeable future, one of the major technologies is projected to be made possible by nanomaterials. The development of point-of-care diagnosis, the integration of diagnostics with therapies, and personalized medicine are all expected to be made possible by nanotechnologies, which promise to expand the capabilities of present molecular diagnostics. The development of nanosensors and nanotechnology must be vigorously pursued due to their importance.

KEYWORDS: Environment, Biorecognition, Nanomaterials, Covid-19.