

TECH-NEWS

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Presents Technological Update On

Biosensor: State-of-the-art

By

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Introduction:

Biosensor is an analytical device which incorporating a biological sensing element either intimately connected to or integrated within a transducer. According to International Union of Pure and Applied Chemistry (IUPAC), recommendations, a biosensor is a self contained integrated receptor-transducer device, which is capable of providing selective quantitative or semi-quantitative analytical information using a biological recognition element. The basic principle of a working biosensor is shown in figure.

Keywords: Biosensor, Pathogens, Enzyme linked immunosorbent assay (ELISA), Sensitivity

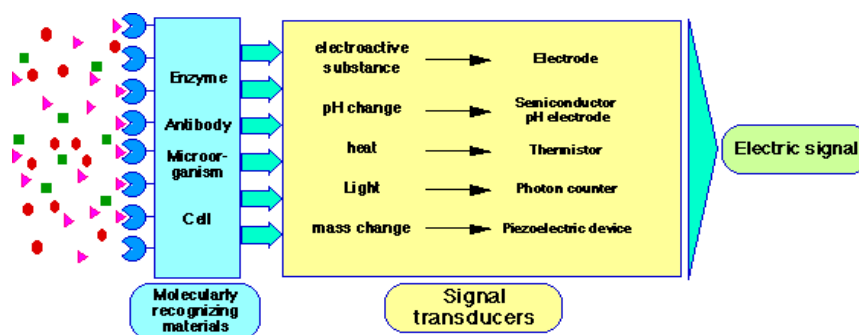


Figure: Representation of basic principle of biosensor

Potential Applications of Biosensor:

Following are the areas in which the biosensors are required:

1. Microbiology: Bacterial and Viral analysis
2. Pharmaceutical and drug analysis
3. Pollution control and environmental monitoring
4. Military applications
5. Mining industrial and toxic gases
6. Industrial effluent control
7. Process control
8. Fermentation control and analysis
9. Farm, Garden and veterinary analysis