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Riddhipratim Mandal, Anupriya Baranwal, Ananya Srivastava, Pranjali Chandra



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# Evolving trends in bio/chemical sensors fabrication incorporating bimetallic nanoparticles

Riddhipratim Mandal<sup>1</sup>, Anupriya Baranwal<sup>1</sup>, Ananya Srivastava<sup>2</sup>, Pranjali Chandra<sup>1\*</sup>

<sup>1</sup>Department of Biosciences and Bioengineering, Indian Institute of Technology Guwahati,  
Guwahati-781039, Assam, India

<sup>2</sup>Department of Pharmacology and Toxicology, National Institute of Pharmaceutical  
Education and Research, Guwahati, 781006, Assam, India

\*Corresponding author. Tel.: +91-361-258-3207; fax: +91-361-258-2249.  
pchandra13@iitg.ernet.in

## Abstract

Biosensor designing took a giant leap in its path of evolution after its merger with a wing of nanotechnology. Dramatic properties like high surface area to volume ratio, enhanced chemical and optical properties of nanoscale materials have revolutionized sensor technology in terms of their analytical performance. Many metallic nanoparticles (MeNPs) like gold, silver, platinum, palladium nanoparticles, *etc.* have been tremendously exploited for improving sensor performance. Over the years, there has been slow but steady shift in nanoscience research with an aim to explore composite MeNPs like bimetallic, trimetallic nanoparticles, *etc.* So far, these engineered nanoparticles are shown to possess multifunctional properties which are providing several advantages over monometallic nanoparticles (mono-NPs). As a result of these properties, composite MeNPs, particularly bimetallic nanoparticles (BNPs), have sought the attention of sensor engineers and since then there has been rapid rise in the number of reports of sensors incorporating BNPs within a brief period of time. Keeping this pivotal fact in consideration, we

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