

NANOTECH-BASED REAGENT FOR ENHANCED BIOSENSING DIAGNOSTIC

A nanotechnology-enabled reagent that improves sensitivity and performance in point-of-care diagnostic tests

Problem / Market Need

Point-of-care (POC) diagnostic technologies are vital for timely and accurate disease detection, particularly in decentralized or resource-limited settings. However, many diagnostic platforms suffer from limited sensitivity and inconsistent test performance. There is a growing demand for novel reagents that can improve the accuracy and efficiency of biosensing systems across global health markets.

Description of Solution / Technology

Developed by Prof. Chris Vorster and his team at North-West University, this nanotech reagent significantly enhances detection sensitivity and signal consistency in POC diagnostics. Its superior performance stems from a specialised synthesis method and proprietary know-how. This expertise is essential for the reagent's successful reproduction, formulation, and integration into diagnostic platforms.

Key Benefits / Advantages

- Enhanced sensitivity and accuracy in biosensing
- Improved consistency for reliable diagnostic results
- Adaptable across various POC diagnostic formats
- Backed by proprietary know-how and technical expertise

Applications / Relevant Industries

The nanotech-based reagent has been proven to be highly sensitive and is multifunctional with tunable properties. The reagent can be used as a tool for detecting specific substances. It has diverse applications, including:

- Specialty Chemicals: Production of nanomaterials with specific properties.
- Biotechnology: Development of medical diagnostics and therapeutics.
- Biomedical imaging: For enhanced light absorbing properties and multifunctionality

Stage of Development

The reagent has been validated in the lab and successfully used in commercial diagnostics, proving its effectiveness. NWU is now seeking partners to license and expand its use across additional diagnostic applications and markets.

Intellectual Property Status

Licensing is based on proprietary know-how and technical expertise, with NWU providing access to critical synthesis methods and application support under license.

Opportunity

North-West University invites diagnostic companies, biotech developers, and investors to license this high-performance nanotech reagent. Licensing options include exclusive or non-exclusive agreements tailored to different applications and markets. NWU offers collaborative support to facilitate technology transfer and product integration.



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