

InvenioIP - Technology Details

Institution: University of Maryland, Baltimore

Docket: RT-2007-027

Title: Analyte Sensor Devices and Holders, and Methods and Systems Utilizing the Same

Summary: Fiber optic sensors, especially fluorescence or photoluminescence-based sensors, have been used to determine analytes in solution at low concentrations in real time. In particular, fiber optic sensors have enabled the determination of metal ions in aqueous solutions such as fresh water, sea water, and cerebrospinal fluid in remote or inaccessible circumstances such as high depth in the ocean and inside the living brain, respectively. However, for finite samples such as those collected and stored in bottles, the fiber optic sensors can yield inaccurate measurements. The present invention presents an application for determining free metal ions in precollected samples, preferably those contained in bottles with direct and practical implications for research studies focused in key areas such as nutrition and environmental pollution.

Applications: • Analyte sensor device for free metal ion concentration detection.
• Broad scientific implications.

Advantages: • Offers novel approach for determining free metal ion concentrations in finite samples.
• Greater time efficiency.
• Reduced manpower, less labor intensive.
• Less complicated.
• Use as a research tool.

State of Development: Proof of concept validated.

R and D Required: More research and development is needed to develop final commercial product.

Licensing Potential: UMB seeks to develop and commercialize via an exclusive or non-exclusive license agreement and/or sponsored research with a company active in the area.

Patent Status: Patent pending

Related Publications: None

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