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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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TECHNOLOGY
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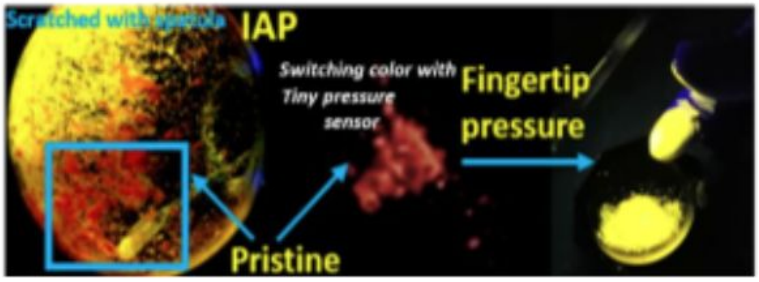
PENDING

(IN202211075459) Fluorescent indole-anthracenyl derivative molecules, method of synthesis, detection method and kit comprising the same



NEED

Detecting stimuli like pressure, acidity, or mechanical force is crucial in diverse industries. Current detection methods often lack sensitivity. But what if there was a way to measure these changes with high precision, using a simple, cost-effective method?

TECHNOLOGY OVERVIEW

This patent introduces a fluorescent indole-anthracenyl derivative molecule that reacts to different stimuli like pressure, viscosity, acids, and mechanical forces, emitting distinct fluorescence. It is usable in both liquid and solid states, offering a new way to monitor environmental changes.

TECHNOLOGY KEY FEATURES

Fluorescent indole-anthracenyl derivative molecules emit a different fluorescence when exposed to various stimuli, including acids, pressure, and viscosity. These molecules provide high sensitivity and versatility for detection applications in various environmental conditions.

Read more here

MARKET ANALYSIS

The global chemical sensors market is projected to grow at a 7.4% CAGR, reaching USD 30.5 billion by 2033. The market for fluorescent sensors is also expanding, driven by demand in healthcare, manufacturing, and safety monitoring. (Source: MarketsandMarkets, 2023)

Target Industries

Sensing device manufacturers; enterprises in safety monitoring and environmental sensing; academic institutions and research labs focusing on molecular sensors for industrial applications

AT A GLANCE

- SDG 9: Industry, Innovation, and Infrastructure; SDG 12: Responsible Consumption and Production

Technology is available for licensing/ co-development.

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