Drug Discovery & Development


# Using Liquid Crystal To Detect Endotoxin In The Presence Of One Or More Potential Masking Agents

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## The Invention

Devices and methods for using changes in the configuration of micrometer sized dispersed liquid crystal domains to detect or quantify analytes in a test sample, including endotoxin lipopolysaccharide (LPS), are disclosed. The test sample includes one or more potential masking agents, such as a non-ionic surfactant, a chelating agent, a divalent cation, a protein, or a nucleic acid, and may also include a buffer. The dispersed liquid crystal microdomains are exposed to the test sample, and any changes in the configuration in the liquid crystal microdomains, such as from the bipolar to radial configuration, are detected. Such changes in configuration signal the presence of analyte in the test sample, and the proportion of liquid crystal microdomains exhibiting the change in configuration is correlated with the quantity of analyte in the test sample.

**Tech Fields**

- Diagnostics & Biomarkers : Diagnostics
- Drug Discovery & Development : Drug production & design
- Research Tools : Synthesis & purification

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854

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