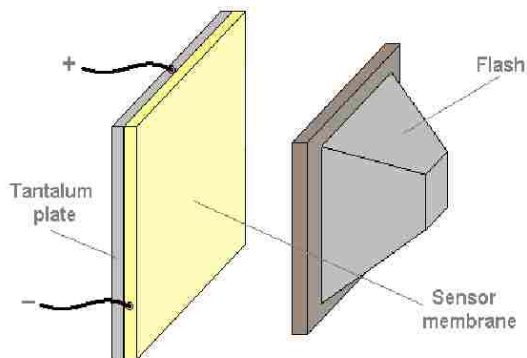


Multi-analyte Sensing

Description

The University of North Florida is developing novel chemical sensing technologies for waterborne pollutants and toxins, including many of those which might be employed by terrorists. One system uses photo-induced charge movements (PICM) on sensor surfaces, which are bathed in the water being analyzed. Toxins and other analytes are detected via their interactions with dyes fixed on sensing surfaces, modifying the PICM which result from brief light flashes in the absence of the analytes. Widely ranging analyte selectivities are available that allow detection of particular analytes, small groups and/or broad classes of analytes. Multiple sensors, arranged in a matrix, can function simultaneously. The sensor matrices can be changed autonomously in planned sequences, in patterns that are determined by the analytes detected, or in response to directives sent to the devices over the Internet or via other communication channels. These sensors can be put in a single small instrument and may be able to detect free oxygen, pH, heavy and other metal ions as well as some organic materials in water. Patent is pending on this system.



Advantages

- Multiple analyte sensing of specific and/or groups of analytes
- Remote automated sensing and reporting

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