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## Chemical Sensor Based on an Array of Fluorophenes with Enhanced Emission

INVENTOR • William Euler

### ABSTRACT

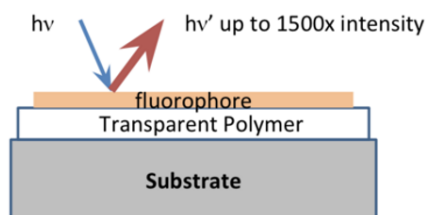
The technology is a fluorescence sensing system for the detection of analytes that are commonly found in explosives.

### APPLICATION

- Detection of concealed explosives
- Forensics
- Environmental monitoring
- Industrial manufacturing quality control

### FEATURES & BENEFITS

- Speed of detection
- Exceptional sensitivity
- Pattern recognition can be used for identification
- Useful for a variety of analytes
  - Drugs
  - Environmental pollutants
  - Breath analysis
- Simple optical design – a single UV source and a CCD camera as the detector
- Inexpensive components
- It uses an array of different fluorophore and polymer combinations to receive multiple emission responses, including signal quenching and enhancement to specifically identify analytes
- Common explosives including TNT, PENT, RDX, HMX, and TATP as gas phase species can all be uniquely identified at room temperature using only natural vapor pressure of the explosive to deliver a sample to the sensor
- Adaptable to new explosives



URIRF turns discoveries into deliverable products and services, creating jobs and economic growth.

- License URI inventions to industry partners
- Form new ventures
- Commercialize inventions
- Connect industry partners to University technology, facilities and people

### CONTACT TO DISCUSS LICENSING OPTIONS

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### PATENT STATUS

Provisional

### AVAILABILITY

Technology is available for licensing.