



## LOW-COST, FULL-SCALE HYDROGEN SENSOR

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Current hydrogen monitoring sensors may determine hydrogen concentration by measurements of thermal conductivity and can have a measurement range limited to concentrations of less than 50%. The sensors are also relatively expensive and can exhibit cross sensitivity to other gases which can be a problem in the measurement of hydrogen-natural gas mixtures because of the complex makeup of natural gas.

### Overview

### The Invention

UW Madison researchers have developed a simple, low-cost hydrogen sensor that can work in a mixed gas environment to provide a wide measurement range. The robust gas sensor works by interrogating a limited frequency range and using polarization for baseline correction of low-amplitude Raman scattering shifts unique to particular gases.

### Additional Information

#### For More Information About the Inventors

- [Scott Sanders](#)

#### Tech Fields

- [Analytical Instrumentation, Methods & Materials: Spectroscopy](#)

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