Researchers at the University of South Florida have recently developed a hydrogen sensor which uses magnetic multilayers for enhanced detection.

This novel device uses magnetic multilayers which change the magnetization state of the system when exposed to hydrogen. These changes can be deciphered using electrical as well as optical measurement techniques. The structure includes nanometer thick layers which allows faster response time in sensing.

The electrical measurement needs the sensor to be powered. But optical measurements to sense hydrogen allow the operation of this device without needing any external power. Thus, this sensor can be used in applications that need deployment and remote sensing.

**ADVANTAGES:**

- Rapid response time
- Can be used as a remotely probed Hydrogen Sensor
- Does not have to be electrically powered

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