

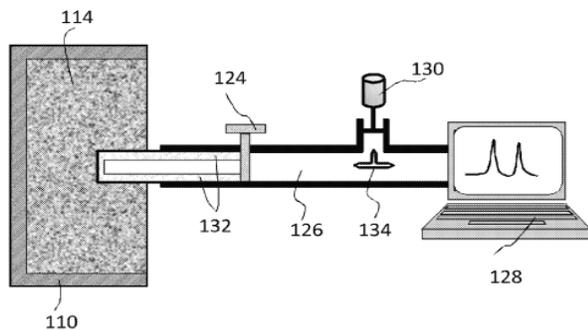
## Apparatus and Methods for Detecting Propellant Degradation in Solid Propellant Fuel

### INTRODUCTION

This technology relates to a gas sensor, a gas collecting chamber including: a nano-porous wall including alumina, on a portion of the gas collecting chamber in the near vicinity of the solid propellant fuel; a micro pump attached to the gas collecting chamber; and a gas analysis device connected to the gas collecting chamber. The gas analysis device measures both type and concentration of gases collected in the gas collecting chamber via the nano-porous wall, the gases measured being selected from the group consisting of CO, CO.sub.2, NO, N.sub.2O, NO.sub.2 and combinations thereof. The present disclosure also relates to a method of sensing propellant degradation in solid fuel and a method of using a gas collecting chamber to sense such degradation.

### CONCEPT

The technology is a device that measures both type and concentration of gases collected in the a chamber via the nano-porous wall.



### INVENTION OVERVIEW

The technology is a device that measures both type and concentration of gases collected in the gas collecting chamber via the nano-porous wall. It also relates to a method on sensing propellant degradation in solid fuel and a method of using a gas collection chamber to sense such degradation.

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- Improved method for detecting propellant degradation in solid propellant fuel.
- Improved applications related to gas sensing.
- U.S. Patent Number: [8,590,404 B2](#)
- Application Number: 13,405,469
- Date of Patent: 26 Nov 2013.

### POTENTIAL MARKET

- Gas Sensor Industries

### DOING BUSINESS WITH AMRDEC

AMRDEC is a leader in partnering with domestic firms. Successfully developed and implemented innovative tools to ease the technology transfer process such as:

- Patent License Agreements
- Cooperative Research and Development Agreements
- Test Services Agreements

### CONTACT INFORMATION

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