

Accepted Manuscript

Theoretical and numerical investigation of blast responses of continuous-density graded cellular materials

Minzu Liang, Zhibin Li, Fangyun Lu, Xiangyu Li

PII: S0263-8223(16)30751-6

DOI: <http://dx.doi.org/10.1016/j.compstruct.2016.12.065>

Reference: COST 8120

To appear in: *Composite Structures*

Received Date: 30 May 2016

Revised Date: 21 November 2016

Accepted Date: 22 December 2016



Please cite this article as: Liang, M., Li, Z., Lu, F., Li, X., Theoretical and numerical investigation of blast responses of continuous-density graded cellular materials, *Composite Structures* (2016), doi: <http://dx.doi.org/10.1016/j.compstruct.2016.12.065>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Optical carbon dioxide sensor based on fluorescent capillary array

Jian Wang^{1,2}, Zhihui Wen^{1*}, Bo Yang³, Xuefeng Yang²

¹*State Key Laboratory Cultivation Base for Gas Geology and Gas Control, Henan*

Polytechnic University, Jiaozuo 454000 China

²*Department of Physics and Chemistry, Henan Polytechnic University, Jiaozuo*

454000 China

³*School of Safety Science and Engineering, Henan Polytechnic University, Jiaozuo*

454000 China)

**Corresponding author: jianwang@hpu.edu.cn*

Telephone: 86-0391-3987811

Fax: 86-0391-3987811

Abstract: A novel carbon dioxide (CO₂) gas sensor based on capillary array is presented. The capillary array is composed of 51 capillaries and modified by fluorescent dye 8-hydroxy-1,3,6-pyrenetrisulfonic acid trisodium salt (HPTS, PTS⁻) and tetraoctylammonium cation (TOA⁺) doped porous ethyl cellulose. A Y-fiber is used to transmit exciting light and fluorescence. A fiber optic pigtail-contained spectrophotometer is used to collect and deal with optical signals. Due to its structural features, each capillary has the two rolling-up layers of inner and outer sensing films, which make the 2 cm long capillary

Download English Version:

<https://daneshyari.com/en/article/4912200>

Download Persian Version:

<https://daneshyari.com/article/4912200>

[Daneshyari.com](https://daneshyari.com)