Electrical response of multi-walled carbon nanotubes to ammonia and carbon dioxide

ABSTRACT

This paper presents the electrical response of Multi-Walled Carbon Nanotube (MWCNT) towards the presence of gases at room temperature. The preparation of MWCNT and the experimental setup are also discussed. The resistance of MWCNT elements is extracted from current-voltage measurements done at room temperature. The results show that there is a change in the resistance when the sensing element is exposed to either ammonia or carbon dioxide gas. Fast response time and recovery time have been achieved.

Keyword: Electrical response; Multiwalled carbon nanotubes (MWCN); Gas sensing