



Contribution ID: 15

Type: **Poster**

## **Electrical properties and gas sensing properties of TiO<sub>2</sub>/GO nanocomposites for CO<sub>2</sub> sensor application**

*Wednesday, 24 May 2017 15:45 (15 minutes)*

Titanium dioxide (TiO<sub>2</sub>) nanostructures were prepared by microwave assisted and varying time. The morphology of TiO<sub>2</sub> nanostructures were studied by scanning electron microscopy (SEM), X-ray diffraction (XRD), electrical and gas sensing properties. SEM images revealed nanoparticles cluster of prepared products. XRD patterns showed anatase phase of TiO<sub>2</sub> with peak of (101), (004), (200), (105), (211) and (204). The I-V characteristics exhibited the behavior of the ohmic and diodes materials. The sensitivity was measured under CO<sub>2</sub> atmosphere showed high sensitivity of TiO<sub>2</sub>/GO composites in 60 second at 2.54.

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**Session Classification:** Poster Presentation I

**Track Classification:** Nanoscale Physics and Nanotechnology