



Contribution ID: 423

Type: Poster Presentation

## Gas sensing properties of annealed and unannealed CoWO<sub>4</sub> for air quality monitoring

The cobalt tungstate (CoWO<sub>4</sub>) nanostructures were prepared using the hydrothermal method. Nanostructures were annealed to compare the structural, optical and gas sensing properties of annealed and unannealed CoWO<sub>4</sub>. The UV-VIS spectroscopy, x-ray diffraction (XRD), scanning electron micro-scope (SEM) and energy dispersive x-ray spectroscopy (EDS) were used to examine the samples optical, structural, morphological and composition properties respectively. The samples showed different XRD phases, where unannealed was hexagonal and annealed sample was monoclinic in structure. Different SEM morphologies and optical band gaps of nanostructures were observed. The samples were further tested for their gas sensing properties and the unannealed CoWO<sub>4</sub> showed the promising gas sensing performance towards NH<sub>3</sub>.

### Apply for student award at which level:

None

### Consent on use of personal information: Abstract Submission

Yes, I ACCEPT

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**Session Classification:** Poster Session

**Track Classification:** Track A - Physics of Condensed Matter and Materials