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## Room temperature CH<sub>4</sub> gas sensor based on Au loaded ZnO nanorods: The effect of Au loading concentration on sensing properties.

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**Abstract content** (Max 300 words) [http://events.saip.org.za/getFile.py?target=\\_blank](http://events.saip.org.za/getFile.py?target=_blank) **Formatting & Special chars**

This study reports on the synthesis of ZnO and Au loaded ZnO nanostructures through the microwave-assisted hydrothermal method. X-ray diffraction (XRD), Scanning electron microscopy (SEM) and Transmission electron microscopy (TEM) were used to confirm the presence of the Au nanoparticles on the surface of the ZnO nanostructures. The effect of Au loading concentration on the sensing performance of the ZnO nanostructures to different concentrations of methane (CH<sub>4</sub>) at room temperature was also studied.

**Apply to be considered for a student award (Yes / No)?**

yes

**Level for award (Hons, MSc, PhD, N/A)?**

MSc

**Main supervisor (name and email) and his / her institution**

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**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

yes

**Please indicate whether this abstract may be published online (Yes / No)**

yes

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