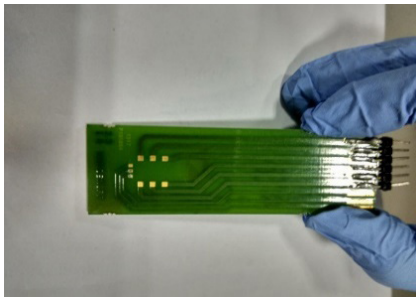
Gas sensor for environmental monitoring system based on ZnO hybrid microcrystal



At the Photonics Laboratory in IIT Bombay, we are developing various photonic devices based on different spectroscopic techniques. They are tailored for various opto-electronic and sensing applications in the agricultural, healthcare and environmental sector. One such device is the Gas sensor for environmental monitoring system based on ZnO hybrid microcrystal.

Motivation

- Highly responsive and regenerative Oxygen gas monitoring sensing platform for oxygen deficient places like mines, spacecrafts, etc.

Novelty

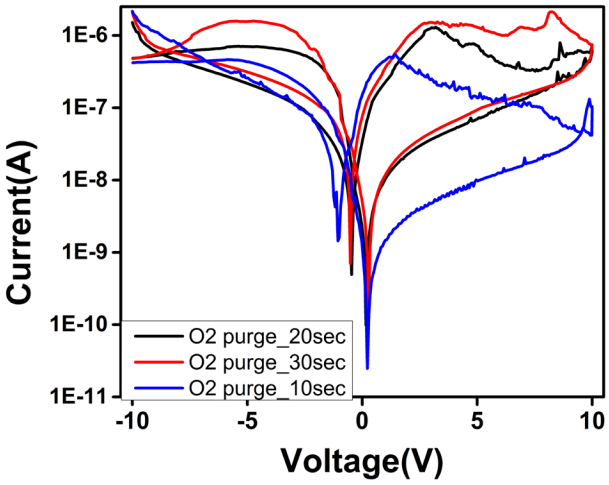
- Easy to chemically synthesise
- Lap-on-chip hand-held portable device

Salient features

- Highly sensitive; can sense pressure variations as low as 0.4 mbar and corresponding change in current is from nA to µA range

Applications

- Highly responsive Oxygen gas sensor



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