

Newer Faster Carbon Monoxide Sensor

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A better sensor to detect toxic carbon monoxide gas that causes fatalities has been developed by researchers at the Indraprastha University, Delhi claims a recent study published in the journal *Ceramics International*.

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Carbon monoxide is toxic to humans, causes poisoning when inhaled in lower quantities and could be fatal if inhaled for a long time. Since it is odorless, tasteless and non-irritating- sensory organs of the human body cannot detect it. Improper ventilated homes and factories with chimneys and appliances like boilers, air conditioners are at threat for accidents and death due to accidental leakage and accumulation of carbon monoxide toxic gas.

Researchers at the School of Basic and Applied Sciences, Guru Gobind Singh Indraprastha University, Delhi have synthesized a new and improved sensor for carbon monoxide by using silver metal and SnO₂ powder. It uses 23nm wide silver metal nanoparticles to make ultrathin 45nm wide silver-SnO₂ nanocomposite films that can be used to make sensors that efficiently sense as low as 500ppm carbon monoxide in 18-20 seconds compared to the best sensors that take 32-34 seconds to do this job. The manufacturing process is easy and takes a few hours to complete.

It is different from other carbon monoxide sensors because it deploys silver that enhances carbon monoxide capture and sensitivity. The scientists confidently say, "The annealed Ag-SnO₂ nanocomposite thin film is expected to be a promising CO gas sensing material".

Newer and better sensors in homes and factories could help prevent accidents and fatalities due to carbon monoxide leakage.

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