

Development of Exhaled Breath Analyzer

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This study investigates the elevated levels of acetone found in the exhaled breath of diabetic patients compared to healthy individuals. A gas sensor, constructed from Zinc Oxide nanoparticles, will be employed to quantify the acetone concentration in exhaled breath. The research primarily aims to explore the relationship between the material and electrical attributes and the gas sensing performance of Zinc Oxide nanoparticles under UV excitation.

Keywords: *Gas sensor, Zinc Oxide, Acetone, Nanoparticles, UV excitation*