SOLID-STATE CARBON DIOXIDE SENSOR





CO2 is Critical for Life

Healthcare

Environment

Detect Alert

Agriculture

Industrial

Inform Decisions

The Problem

Existing CO₂ sensors face **significant limitations** in functionality, adaptability and accuracy making them unsuitable for diverse environments.

Nanomaterial Solutions Excel

Solid-state **Precise and reliable** Wide range of temperature humidity and pressure

Minimal power Compact **Rapid and accurate Cost-effective**



Outperforming Existing Solutions

Design Advantages	NDIR	Metal Oxide	Silicon Nanowires
Low Cost	X		X
Accurate Sensitivity		X	X
Low Power Consumption	X	X	
Lightweight	X		
Variable Environment Functioning	X	X	
Mobile Integration	X		X



Ambient Monitoring For CO2 Intoxication Risk Alerts

Confined Space Hypoxia

5% Concentration

Respiratory acidosis and hypercapnia

10% Concentration

Convulsions, coma, and death



30% Concentration

Loss of consciousness within

seconds

Expected Market Growth

Assumptions

- 1. Climate change driven growth
- 2. Personal health conscious population
- 3. Increasing regulatory trends
- Funding 4.







