

National Aeronautics and
Space Administration

A NASA First in Nano-Technology: First Nano-Sensors on a Cell Phone



First nanochemical sensor on a cell phone – a carbon nanotube (CNT)-based sensor array in a chip form - was developed and miniaturized to plug in a cell phone. The phone nanosensor has low power consumption and is able to identify a variety of gases/vapors and estimate their concentration.

Achievement	This is the first device that integrated the nanosensor and cellphone for chemical sensing with data acquisition, sampling, signal processing, communication and network sensing all in one.
Timeframe	2012
Location	NASA Ames Research Center
Mission Directorate	
Program	Center IRAD
Anticipated Benefits	The applications for this electronic “nose” include deployment in nanosats/phonesats, leak detection in crew vehicles, crew cabin air quality monitoring, biomedical/clinical diagnostics, security threat detection, and environmental monitoring.
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Links	

NASA First: record breaking achievement