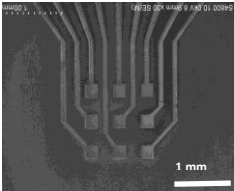
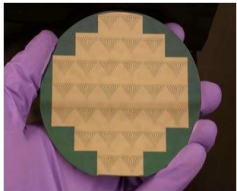


A NASA First in Nano- Technology: First Nano Biosensor for Water Quality Monitoring and Crew Health Management



This chip-based sensor system developed at Ames Research Center enables real-time, rapid analysis of water quality and routine health monitoring of astronauts.

Achievement	Chip-based electrochemical biosensors using carbon nanofibers were developed for the first time in 2010. Wafer-level processing of the chips and application of the biosensor for monitoring pathogens in water and detecting key biomarkers related to crew health management were demonstrated. Excellent detection sensitivities, low cost and small size are the desirable attributes for space missions.
Timeframe	2010
Location	NASA Ames Research Center
Mission Directorate	
Program	Center IRAD
Anticipated Benefits	The successful development will provide low cost biosensors for <i>in situ</i> water quality monitoring at the International Space Station (ISS) and on site crew health management in crew vehicles and space habitats.
Point of Contact	Jessica Koehne
Links	

NASA First: record breaking achievement