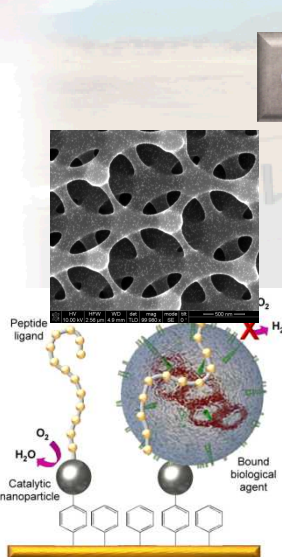


# Sensors Workshop

Wahid Hermina  
Senior Manager  
Microsystems RD&A\Integration  
Sandia National Labs

# Portable Multi-function Sensors

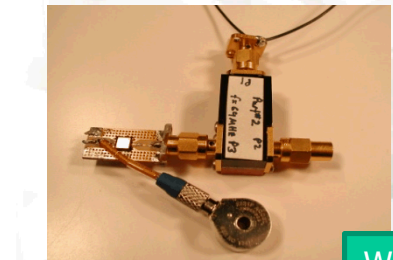


Peptide ligand

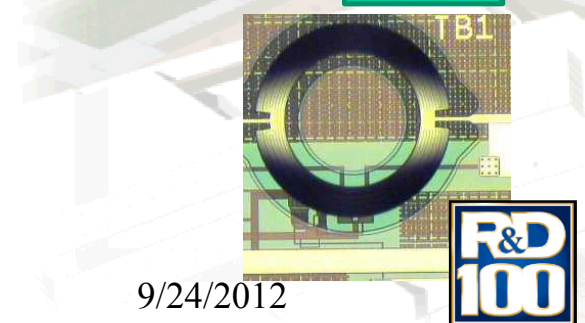
Catalytic nanoparticle

Bound biological agent

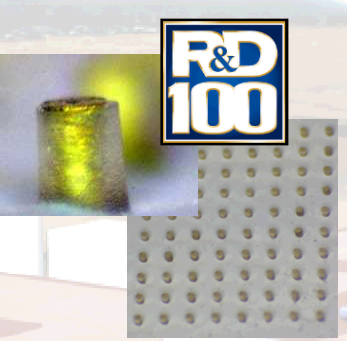
Biological



Wireless



R&D 100

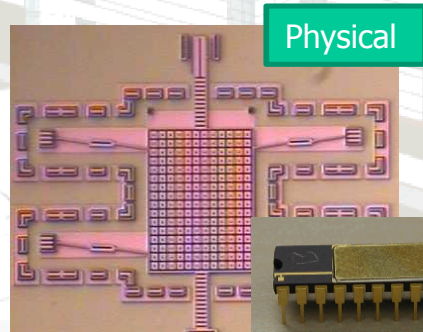


R&D 100

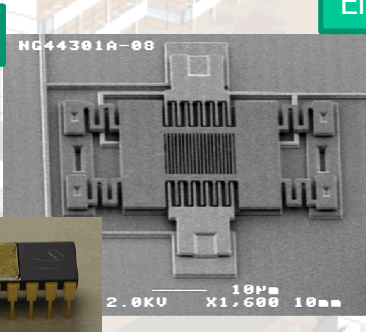
## MESA Facility

- Silicon Fab (rad-hard CMOS)
- Compound Semiconductor Fab
- Heterogeneous Integration
- Packaging
- Testing and Failure Analysis

DoD Trusted Foundry




Physical

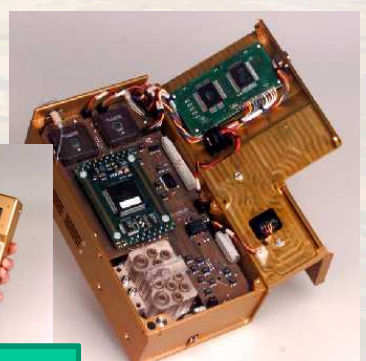


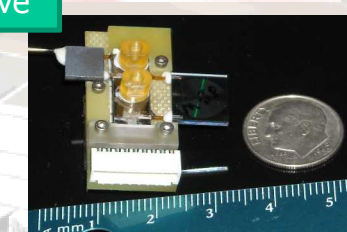
HC44301A-08

2.0KV X1,600 10µm

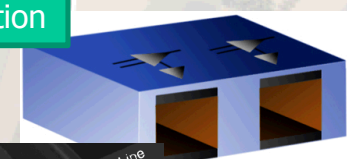


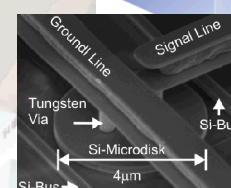
Chemical/explosive





EM/Radiation





Ground Line

Signal Line

Tungsten Via

Si-Microdisk

Si-Bus

4µm

9/24/2012

Wahid Hermina