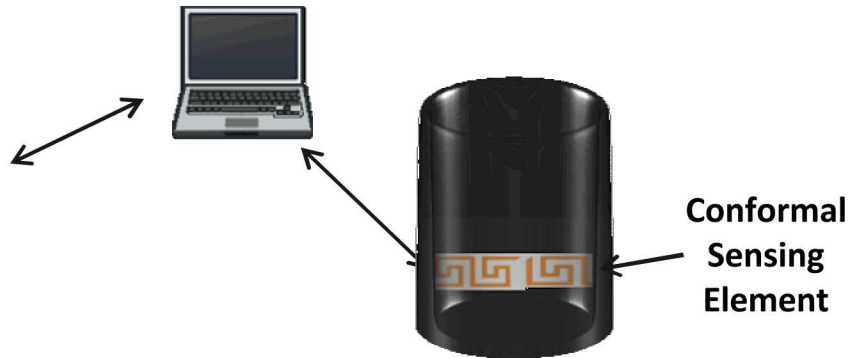
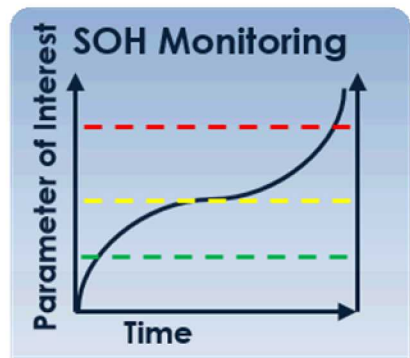
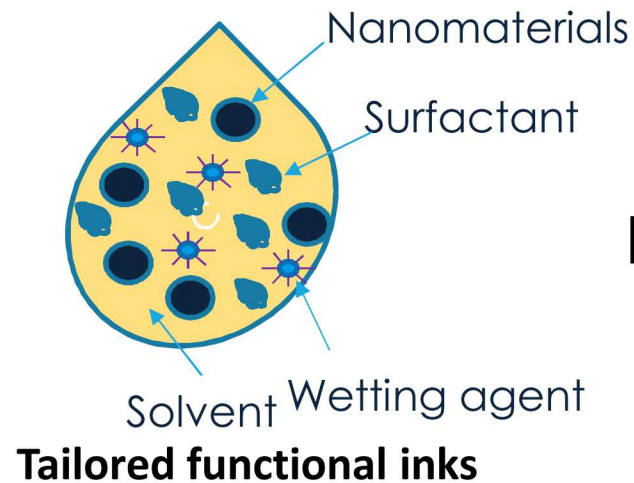


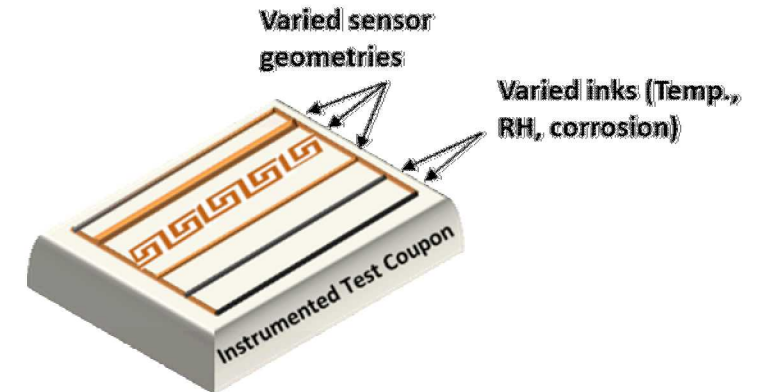
Conformal Printed Electronic Sensing Elements for In-Situ SOH Monitoring SAND2019-13658PE



A new paradigm in embedded SOH sensing using additive manufacturing to create self-aware, smart components



Sandia's aerosol jet additive manufacturing process



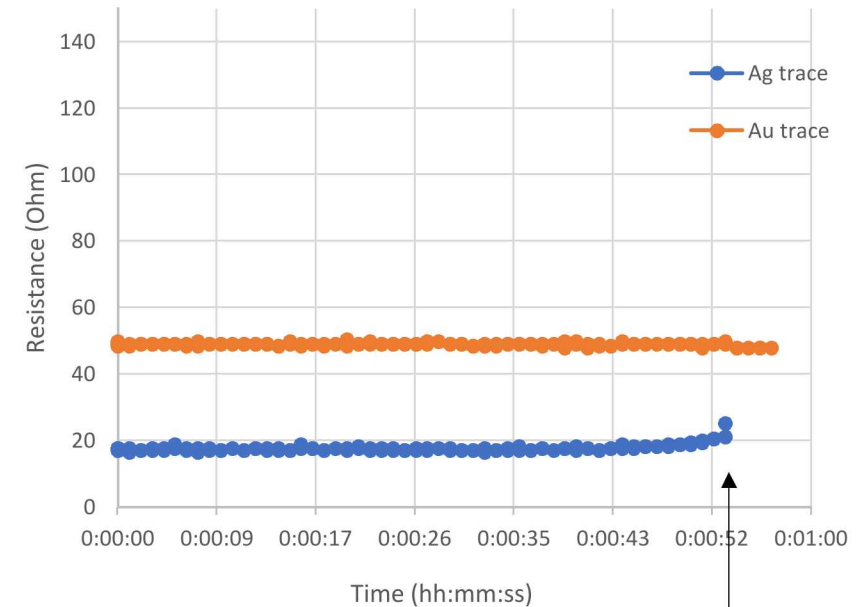
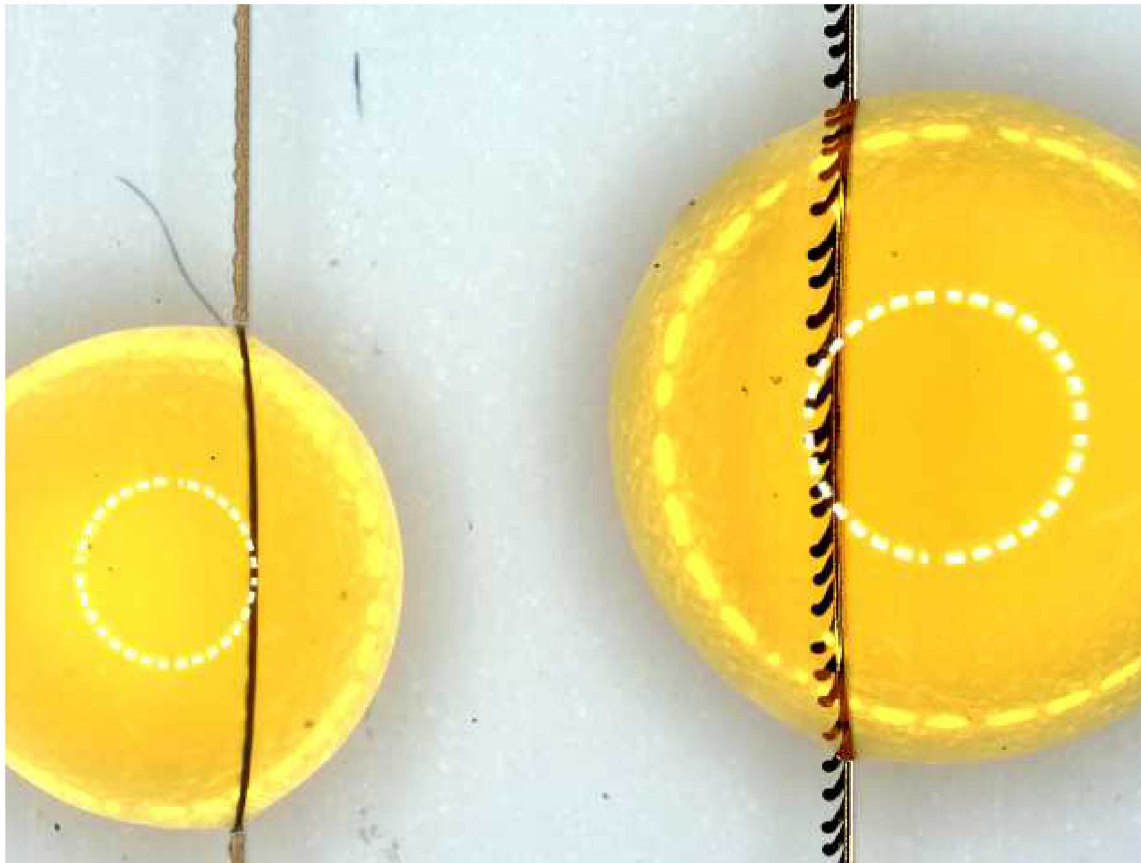
Multifunctional sensing element arrays

Printed ink approach enables on-the-fly ability to design and print various sensor geometries, including multi-element sensor arrays, for rapid testing and exploration

Printed Corrosion Sensor Demonstrator

Ag

Au



The silver trace was fully dissolved by the ferric nitrate solution and an OL condition was observed. The gold conductor was not affected.