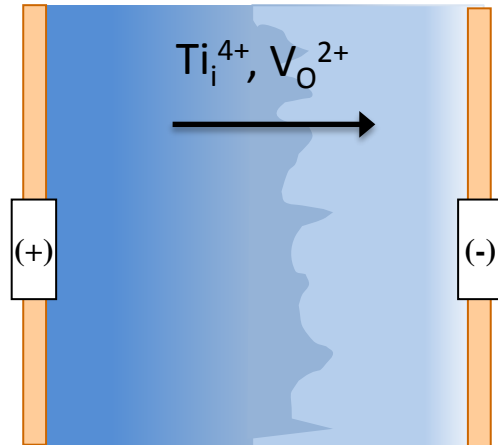


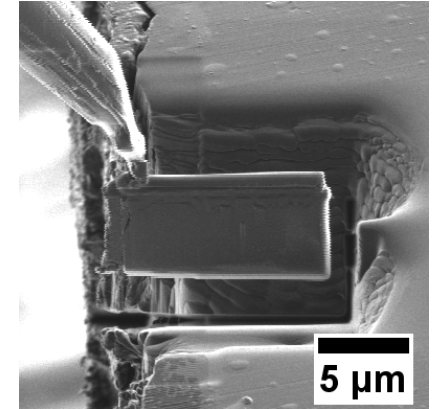
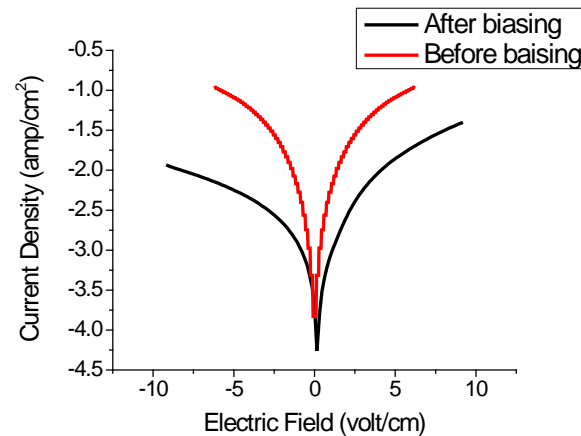
Field-induced Point Defect Redistribution in Metal Oxides: Mesoscopic Length Scale Phenomena

(Award 1132058, 9/15/11-9/14/15, Elizabeth Dickey, PI; Ali Moballegh, PhD student; Brandon Shaw, Undergraduate Student)

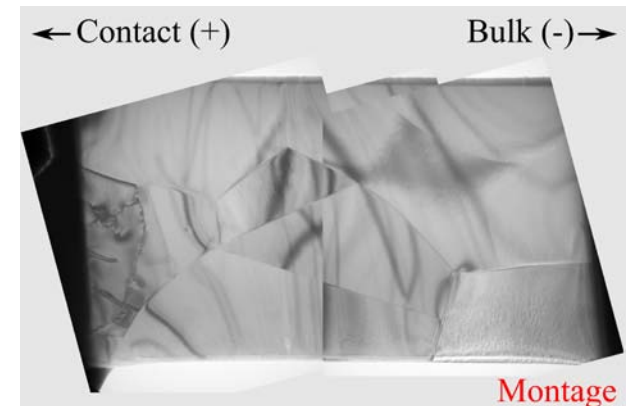


Schematic of charged point defect migration during DC biasing.

Electrode electrical characterization



Local microanalysis near electrodes



Program Goals:

To develop a phenomenological understanding of bias-induced defect redistribution in transition metal oxides at the mesoscopic length scale specifically taking into account the effects of extended lattice defects and electrode boundary conditions