Current-Induced Local Oxidation (CILO)

- CILO is a method for fabricating narrow lateral oxide barriers in thin metal films.
- A patterned constriction in the film results in a high current density which enhances oxidation.
- 60 nm-wide barriers have been fabricated using both AFM oxidation and electron beam lithography to define the constriction.
- Currently investigating role of different oxidation mechanisms and thin film current transport processes.