

Anneal

Lateral
gradient
LSA

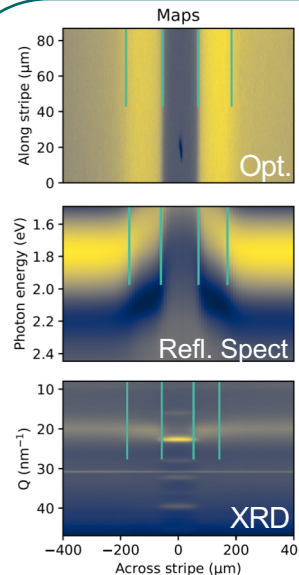
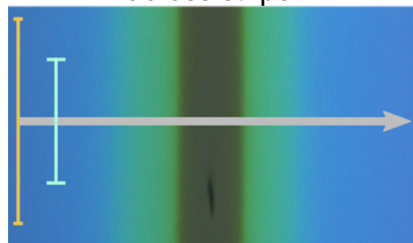
Laser anneal
stripe traps
metastable
phases
in oxide thin
films

Scanning
Direction

Analyze

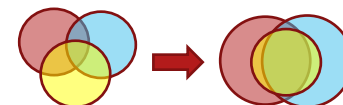
Collect

In-lab: Collect optical microscope image and
reflectance spectra across stripe
CHESS: Collect spatially resolved μ -WAXS
across stripe



Identify conditions of
transitions and compare
effectiveness of
techniques

Result:
Conditions for materials
transitions seen via XRD
also identified via optical
techniques



Prior knowledge of
material transition
conditions for beamtime!