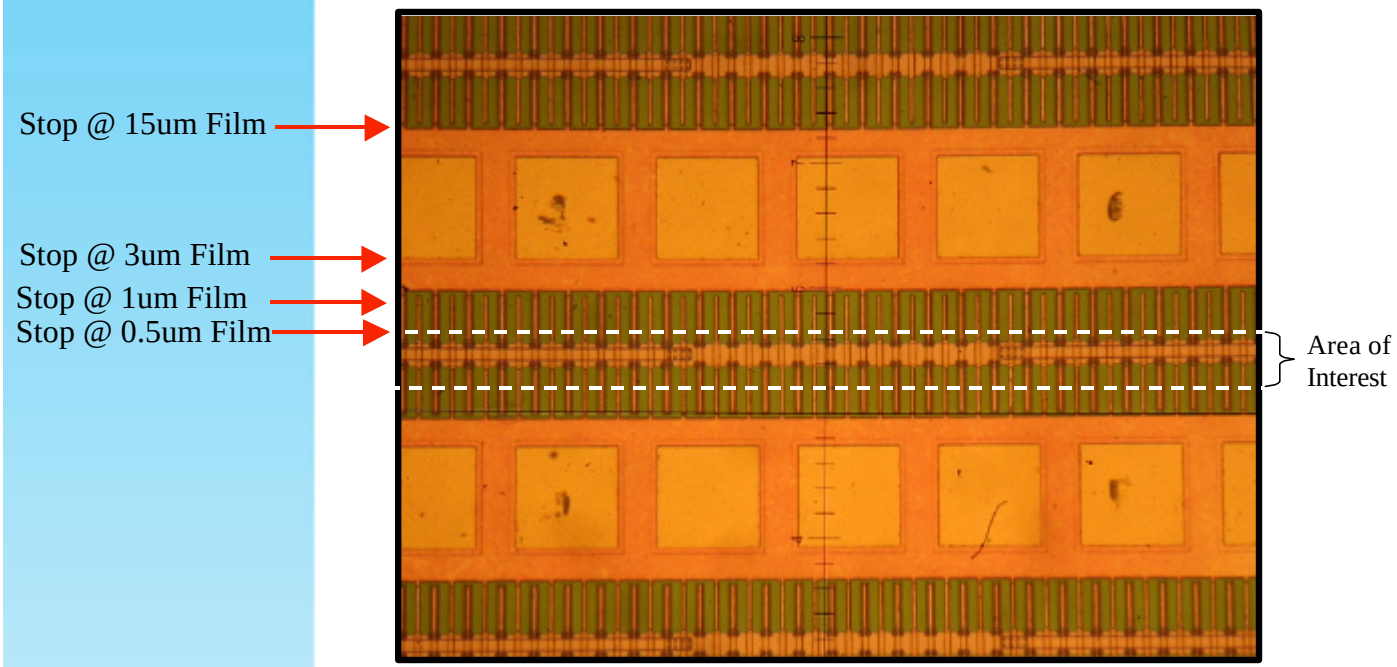
SOUTH BAY TECHNOLOGY, INC.

Cross Section Mechanical Preparation of GaAs



Basic Procedure

1. Cleave cover slip glass to same size as GaAs device area.
2. Epoxy glass cover slip to top surface (device side) of GaAs device.
   Minimize epoxy interface by using sample clips
   Use the least amount of epoxy as possible
3. Sliver epoxy GaAs device w/coverslip onto polishing stub, leaving 2-4mm overhanging.
   Use the least amount of epoxy as possible
4. Start polishing with 15um diamond lapping film. Use the above image as a polishing stop guide for each abrasive size. Polishing platen speed was 50-60 RPM and polishing direction is parallel to sample interface.
5. Final polishing is performed with CS1 colloidal silica on MultiTex™ cloth for 10-15 minutes. Polishing platen speed was 50-60 RPM and polishing direction is perpendicular to sample interface starting from bottom of GaAs device toward glass cover slip.