

5 Axis Manipulator for PEEM

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A new 5 axis sample manipulator is complete and undergoing testing and commissioning prior to installation in the PEEM 3 Microscope on BL 11.0.1 at the Advanced Light Source. Novel features and requirements of this device include; 5 degrees of positional freedom (excludes sample yaw) up to +/- 5 mm with .1 micron resolution, 20 kV isolation, heating and cooling from ~40 K to ~1300 K, feedback instrumentation, non-magnetic materials (<1 micro gauss), and high stability (1st translation mode ~300 Hz). Complete design details and initial test results will be presented.