Instruments

The Materials Preparation and Measurement Laboratory (MPML) provides facilities for preparation, fabrication, processing, patterning and characterization of many types of samples. Instrumentation encompasses scanning probe microscopes (AFM and STM), scanning electron microscopes (SEM), optical lithography and imaging, sample cutting-polishing, surface coating, thermal characterization, optical characterization via steady-state and time-resolved fluorescence, absorbance, reflectance, Raman, and light scattering.

Available Instruments

3D Printer - Flashforge Creator Pro
AFM - Asylum Cypher ES
Ellipsometer - Gaertner Waferskan
Evaporator - General Thermal Fluorometer - Lifetime ChronosBH
Furnace - #6 Muffle
KRUSS SDT Spinning Drop Tensiometer
Microscope - Olympus BH2
SEM - Hitachi S-2700
Spincoater - SPS P6700
Wire Bonder - K&S 4526

3D Printer - Formlabs Form2
AFM - Bruker Multimode 5
Etcher - Plasma Etch PE-100LF
Evaporator - Gold Thermal
Furnace - #3 Blue Quartz Tube
Grinder/Polisher - ECOMET3
Laser Cutter - ULS VLS4.60
Microscope - Olympus LEXT OLS5000 Surface Metrology
Software - COMSOL Multiphysics
Sputter Coater - Ted Pella Cressington 208 HR
Zetasizer / DLS - Malvern NanoZS

3D Printer - Objet Connex 350
AFM - Bruker Multimode 8
Etcher - RIE
Evaporator - Silver Thermal
Furnace - #4 Quartz Tube
KRUSS DSA100 Drop Shape Analyzer
Lithography - UV Exposure System
SEM - Carl Zeiss Merlin
Spectrophotometer - Agilent 8453 UV/Vis
STM - Bruker Standalone

AFM - Asylum MFP3D-BIO
Diamond Saw
Evaporator - E-gun
Fluorometer - Horiba Fluorolog-3
Furnace - #5 Muffle High Temp
KRUSS K100 Force Tensiometer
Microscope - Horiba LabRAM HR Evo Confocal Raman
SEM - FEI NanoSEM
Spectrophotometer - Cary 5000 UV/Vis/IR UMA
TGA/DSC - TA Instruments SDT Q600