

ME 8450: Nano/Microscale Mechanics

Mechanics of imperfections in crystals (point defects and dislocations), diffusion theory, time dependent plasticity (creep and viscoelasticplasticity), size-dependence of mechanical behavior, as well as mechanics of thin films/coatings, and mechanics of nanomaterials (nucleation and growth). Demonstration labs on mechanical behavior at the nano-/micro-scale using atomic force microscope and nanoindenter.

Credits: 3.0