Quantify the effect of random surface roughness on nucleate boiling characteristics for a variety of conditions.

- Random surface roughness produced by consistent method
- Wide range of surface roughness
- Working fluids include different wetting characteristics


- Quantify bubble nucleation characteristics from realistic surfaces in a statistically meaningful way
- Improve modeling of nucleate boiling heat transfer
- Assist in improved modeling of two-phase flow at the microscale
- Develop high-speed digital measurement techniques for bubble geometry near surfaces