

# Session 5: Final Processing

Charge questions:

- What are the important differences in the final structure in relation to the observed properties?
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- What Changes need to be made?
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- What new things should be tried?
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# Session 5: Final Processing

- Goals: Better, Faster, Cheaper (Pick 2?) Make it routine, low cost (**less important**)
  - Can we mechanically polish, do a light chemical polish and be done? (Reece)
    - What should that process be? (Mechanical, CBP [30-40 micron removal], EP[low T], 120 bake)
      - Low T harder on multicells
      - Optimal T still unknown
    - What roughness (as a function of scale) is good enough?
      - Non HF-based processes to achieve ~15 microns

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- Can point repair close cavity performance distributions and reduce initial processing? (Ge)
  - Laser Re-melting: Purity, Surface Roughness (scale)
  - Vortex Removal (Gigi, Alex G.)
  - Flaw Detection (Beardon) Speed vs Resolution (roughness question above)
    - Faster automated inspection systems
    - Build library of flaws
    - In fabrication process

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- New surface treatments and Films
  - Plasma Treatments (Upadhyay) (Dry vs Wet?)
  - Layered Superconductor Growth (Proslie)

# Session 5: Final Processing

- What are the important differences in the final structure in relation to the observed properties?
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- What Changes need to be made?
  - Control
  - Press for standards
- What new things should be tried?
  - Understand the underlying physics/engineering of mechanical polishing, and all other processes
  - What state of the surface is really necessary