

NASA Glenn Research Center (GRC) Microsystems Fabrication Laboratory

- Demonstrated, unique capability to fabricate 500°C durable circuits of moderate complexity operational for extended periods.
- Design and build approach of a broad range of circuits based on the core technology potentially enabled by this work.
- Circuit fabrication and packaging based on these capabilities can be included as part of a proposal, assuming inclusion of associated costs.
- Circuit design choices limited. Identification and preliminary design of circuit by collaborator assumed. Feedback from NASA GRC on feasibility and costs can be provided for a proposal as appropriate.
- Please see <https://sic.grc.nasa.gov/> for published example circuits, and a Circuit Design and Modeling Guide.

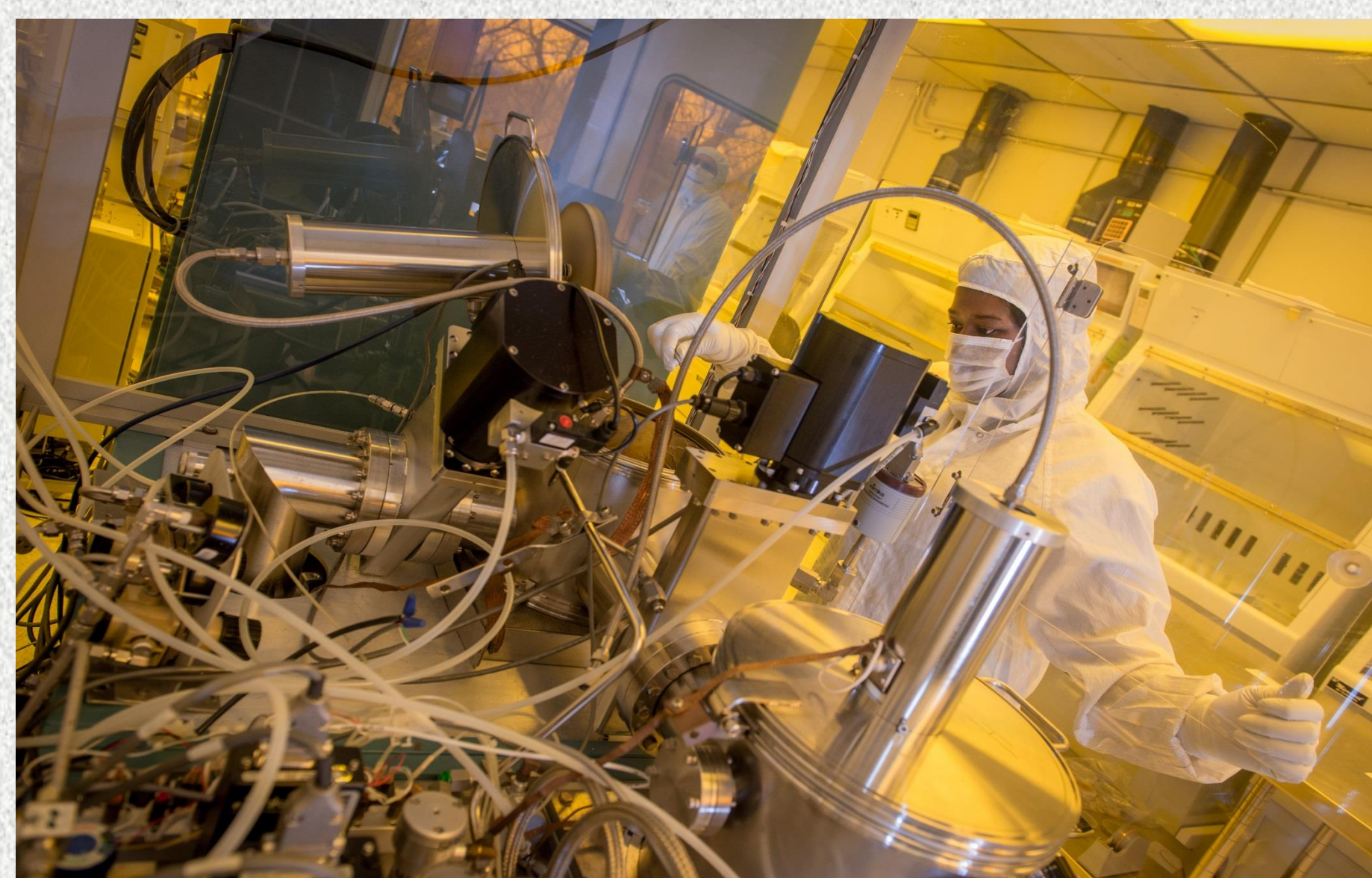
- 2500 square feet class 100 and 1000 cleanroom.
- Supports microfabrication of harsh environment sensors and integrated circuits.
- Physical vapor deposition, Oxidation and annealing, Chemical vapor deposition and plasma etching capabilities.
- Extensive microelectronics processing with photomask aligners & wet chemical etching stations



Wet Chemical Work Stations and Mask Aligner



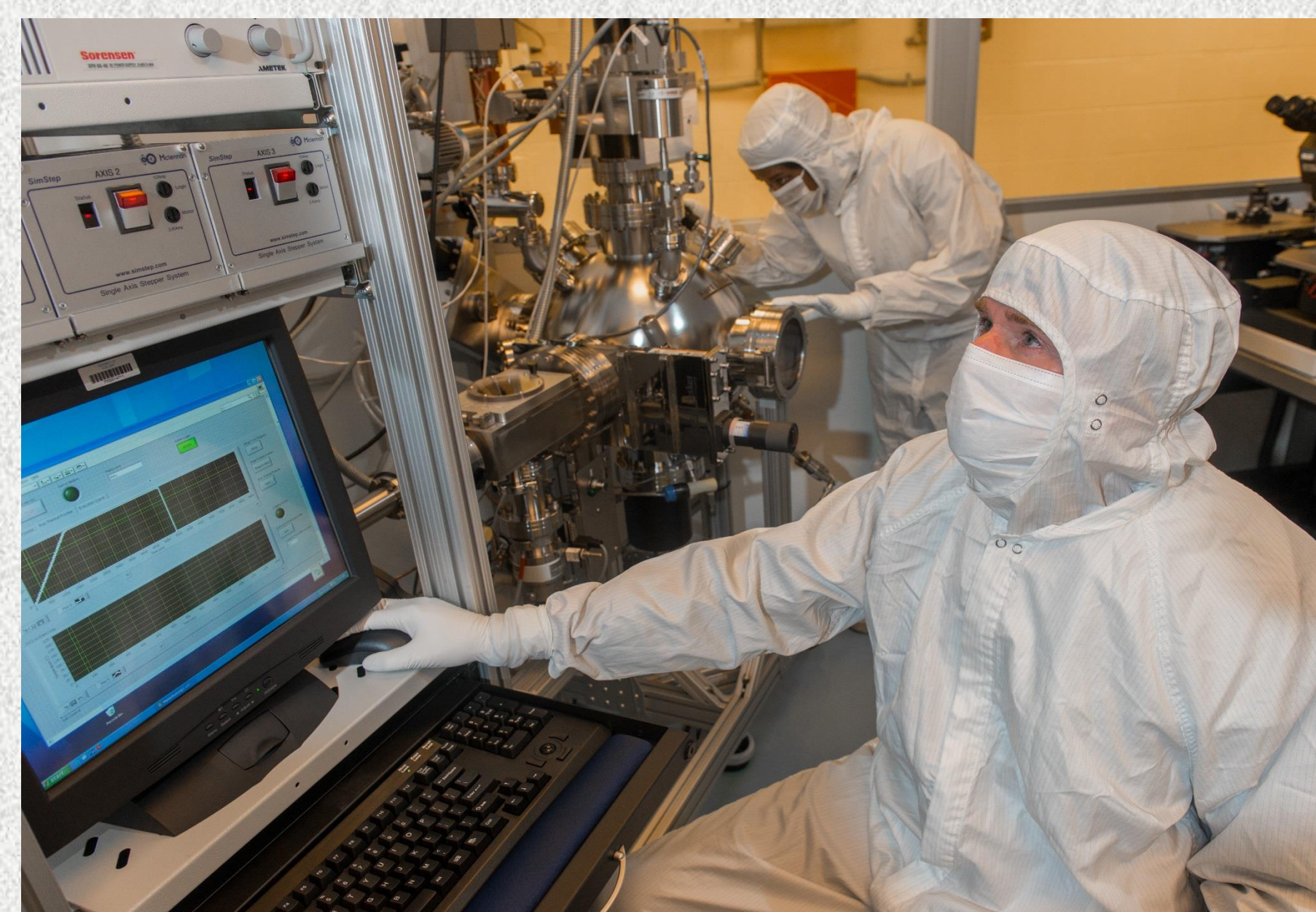
Rapid Thermal Annealer



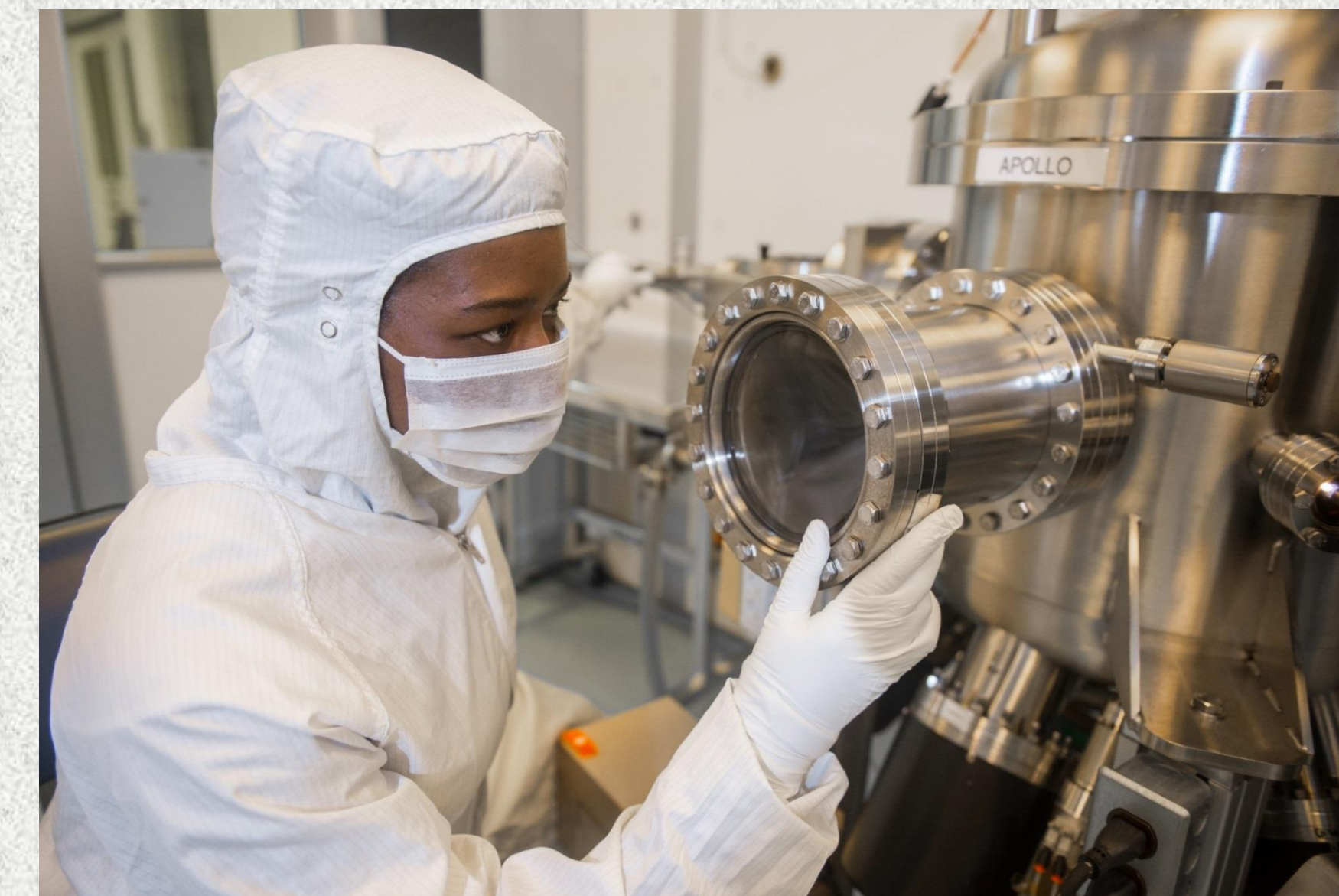
Reactive Ion Etcher



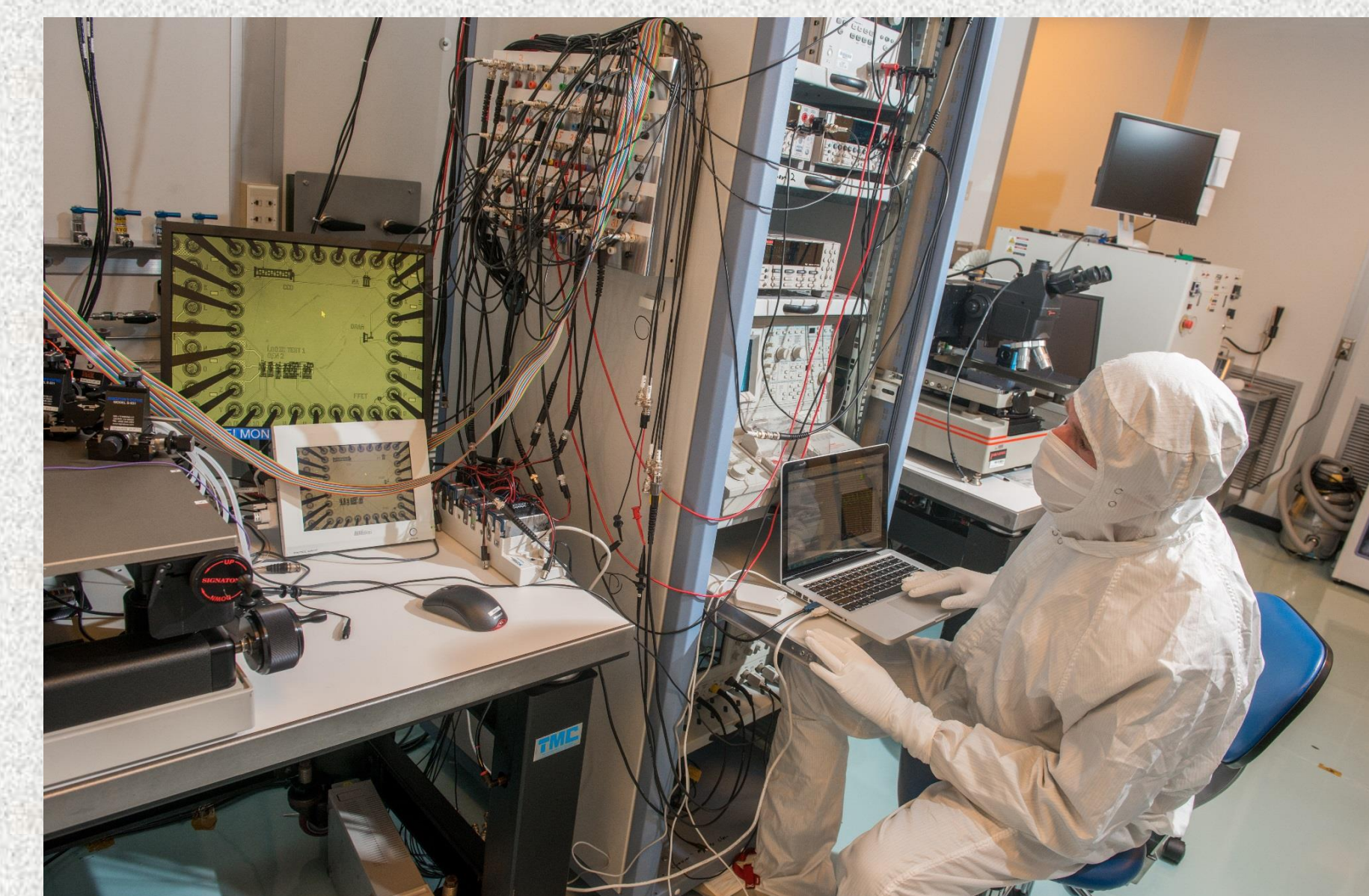
Oxidation and Annealing Furnaces and Silicon Dioxide Low Pressure Chemical Vapor Deposition System



Tantalum Silicide Sputter Deposition System



Ultra High Vacuum Metal Deposition System



Probe Test Station



Inductively Coupled Plasma Etcher (Background) and Chemical Work Stations