

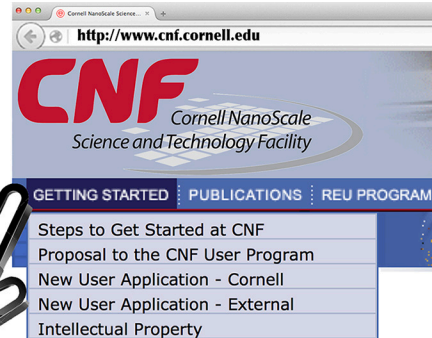
**A National Resource  
For Nanoscale Research**

**CNF** Cornell NanoScale  
Science and Technology Facility



**Cornell University  
Cornell NanoScale Science  
and Technology Facility**

**To begin your research, please visit our  
website and click on "Getting Started"**



**Cornell NanoScale Science &  
Technology Facility (CNF)**

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**CNF is a member of the National Nanotechnology Coordinated  
Infrastructure ([www.nnci.net](http://www.nnci.net)) and is supported by:**

**The National Science Foundation, Empire State Development's  
Division of Science, Technology and Innovation,  
Cornell University, Industry, and our Users.**

• COVER DEVICE BY PETER HARTWELL AND NOEL MACDONALD • CNF REU INTERNS PHOTOGRAPHED BY DONALD TENNANT •  
• DUFFIELD AERIAL SHOT BY CORNELL UNIVERSITY PHOTOGRAPHY • TOOL CLOSE-UPS BY CHARLES HARRINGTON PHOTOGRAPHY •

**Researchers from academia,  
industry, and government  
laboratories rely on the  
Cornell NanoScale Facility (CNF)  
to pursue their interests.**

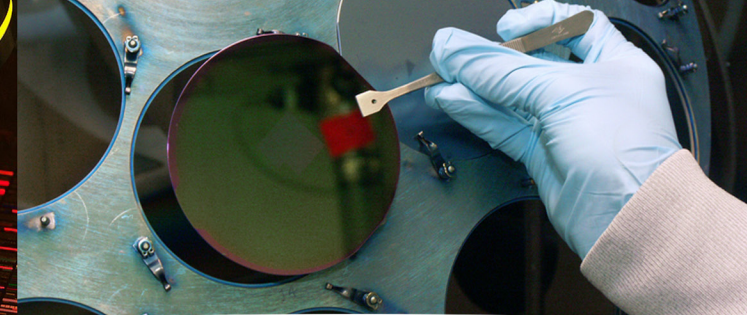
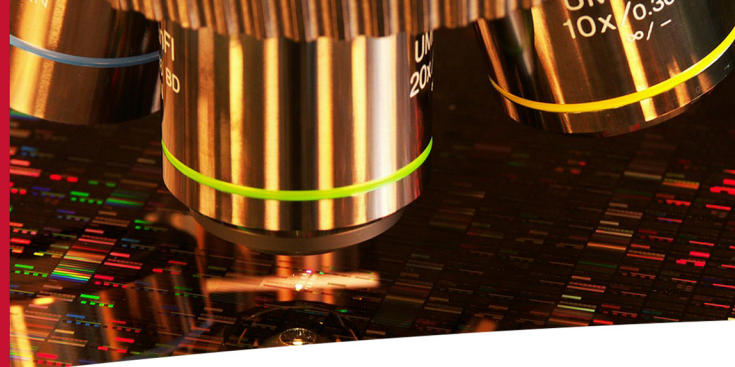
**Our facility – open nearly 24/7 –  
is an interactive learning and  
practicing environment, critical to  
successful cutting-edge research.**

**Our staff is experienced and  
highly trained with backgrounds in  
chemical, electrical and mechanical  
engineering, materials science,  
biology, and physics.**



## Forty One Years of Experience

Cornell NanoScale Science & Technology Facility has been serving the research community since 1997. We offer new user training sessions on a regular basis, state-of-the-art resources coupled with expert staff support, a biannual short course in Technology & Characterization at the Nanoscale, a summer internship program for undergraduates, vendor and topical workshops, an annual meeting open to the public, and facility tours for interested visitors, including K12 groups.



### Easy to Access

From your first contact with our user program managers, you are off to a rapid start on your new project. Weekly technical sessions allow you to call and discuss your project with our staff, to begin to organize your process and training before you arrive. Looking for inexpensive housing while in town? Exclusively for our visiting users, CNF maintains a low-cost apartment within walking distance of our facility and campus.

### Monday is Training Day

New users from academia, industry, and government are trained on a regular basis to learn to use the tools available at the CNF and carry out their research projects. Open 24 hours a day, nearly every day of the year, CNF provides the interactive and exciting learning and practicing environment critical to successful cutting-edge research.

### A Broad Range of Projects

Research at the CNF encompasses engineering, life sciences, and physical sciences, with a strong interdisciplinary emphasis. Every year, as many as 700 users from across the world use CNF resources for:

- Nanoscale Electronics; Carbon Nanotubes and Graphene
- Life Sciences and Medicine
- MEMs and NEMs
- Micro and Nano Fluidics
- Optics and Optoelectronics
- Organic Electronics
- Spintronics and Magnetics
- Energy Harvesting and Storage



### Resources

The CNF cleanroom is located in Duffield Hall; Cornell's center for engineering sciences and technology. The CNF's 17,000 square-foot clean room houses over 130 major tools designed for 4- and 6-inch wafer sizes, with other variations on select tools (small pieces, 8- and 12-inch wafers).

### Major Tool Sets

- 3D Printing
- Aligned Bonding
- Atomic Force Microscopy
- Atomic Layer Deposition
- Chemical Ink Jet Printing
- Chemical Mechanical Polishing
- Deep Silicon Etching
- Electron-Beam Lithography
- Furnace Deposition and Annealing
- Inductively-Coupled Plasma Reactive Ion Etching
- Mask Making
- Molecular Vapor Deposition
- Nano Imprinting
- Photolithography
- Plasma Enhanced Chemical Vapor Deposition
- Rapid Thermal Processing
- Scanning Electron Microscopy
- Plus, Supporting Tools for Characterization, Metrology, Dicing and Packaging