

## Steven M. Winder

503 Onteora Boulevard, Asheville, NC 28803, (828)274-9318, cell: (803)351-5756  
[smwinder@yahoo.com](mailto:smwinder@yahoo.com)

### Research Interests

carbon materials synthesis, graphite crystal growth

### Skills

UHV (Ultra-High Vacuum) system design and assembly  
QCM (Quartz Crystal Microbalance) implementation  
STM (Scanning Tunneling Microscopy) in air and UHV  
SEM (Scanning Electron Microscopy)  
Electronic circuit design and assembly

### Education

North Carolina State University	2003	PhD	Physics
North Carolina State University	1998	MS	Physics
University of North Carolina, Asheville	1993	BS	Physics

### Academic and Professional Experience

Spring 1992	Participant in Science & Engineering Research Semester at Oak Ridge National Laboratory
Fall 1993-Spring 1994	Research Assistant, NCSU Precision Engineering Center
Fall 1994-Spring 1996	Teaching Assistant, NCSU Physics Department
Fall 1996-Spring 1998	Research Assistant, NCSU Optics Laboratory
Fall 1998-Fall 2002	Research Assistant, Nanoscale Tribology Laboratory
Spring 2003-Fall 2004	Research Assistant, USC Dept. of Chemical Engineering, Columbia

### Honors

National Merit Scholarship Recipient	Fall 1989-Spring 1993
NCSSM Graduate	1989

### Professional Activities

American Physical Society member since 1992  
American Vacuum Society member since 1999

### Scholarly Communication

- *Synthesis of Curved Kish Graphite*, S.M.Winder, D.Liu, & J.W.Bender, October 2005 Appalachian Regional Microscopy Society conference poster, Boone, North Carolina.
- *On the current status of superconductivity-dependent sliding friction*, B.L.Mason, S.M.Winder, & J.Krim, **Tribology Letters**, Vol.10, No.1-2, p.59, 2001.
- *Quartz Crystal Microbalance Measurements of Sliding Friction of Inert Gas Films on Lead, Copper, Nickel, and Graphene Surfaces*, Steven M. Winder, PhD thesis supervised by Jacqueline Krim, NCSU, 2003, <http://www.lib.ncsu.edu/theses/available/etd-10292003-223120/>
- *Sliding Friction of Xenon Monolayers and Bilayers on Pb and Cu Substrates*, S.M.Winder, B.Mason, J.Krim, October 1999 AVS conference talk, Seattle.
- *Sliding Friction of Xenon Monolayers and Bilayers on Ni(111)*, Steve Winder, Jacqueline Krim, March 2001 APS conference talk, Seattle.
- *Quartz Crystal Microbalance Studies of Chemically Synthesized Carbon Films*, Steve Winder, Jacqueline Krim, March 2002 APS conference poster, Indianapolis.