Landon Prisbrey

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ACCOMPLISHMENTS

I have authored 7 scientific publications (4 as lead author, 1 invited) – most of which deal with development and application of nanoelectronic "lab on a chip" technology (analogous to "system on a chip"). As a founding member of the Minot Nanoelectronics Group, I have the unique experience of helping build a research group from scratch. Following my PhD, I was offered a handsome package to stay as a post-doctoral researcher. In this role I have supervised two undergraduate projects, and I currently have 3 lead author articles in the manuscript phase. I am practiced at communicating my work across a broad range of technical levels – with a background presenting at conferences, universities, and national labs across the United States and Europe.

EDUCATION

Oregon State University Corvallis, Oregon
2006-2011 **PhD** Physics
"Carbon nanotube devices engineered by atomic force microscopy"
PhD defense video: http://youtu.be/6Hp7RbxCjLc

University of Utah Salt Lake City, Utah
2003-2006 **BS** Physics

Utah Valley University Provo, Utah
2001-2003 **AS** Mathematics

WORK EXPERIENCE

Minot Nanoelectronics Research Group Corvallis, Oregon
2007-2011 Research assistant, 2012-Present Post-doc researcher
- Demonstrated novel, electronic single-enzyme activity measurements
- Developed cutting-edge, sub-nm transistors for single-molecule sensing applications
- Developed advanced scanning probe microscopy applications for nanoelectronics research

Loveland High Energy Research Group Corvallis, Oregon
2006-2007 Research assistant
- High energy physics experiments conducted at TRIUMF, Oak Ridge, and Argonne National Labs

Oregon State University - Physics Department Corvallis, Oregon
2006-2010 Teaching assistant
- Taught recitation and lab courses in upper and lower division physics and astronomy

Quickutz manufacturing Salt Lake City, Utah
2004-2007 Software writer and consultant
- Developed C++ code to enforce design rules in CAD designs

SKILLS

- Management: supervised two undergraduate research projects
- Characterization and fabrication:
  • Scanning probe microscopy • Nanolithography • Scanning electron microscopy • Photolithography
  • Direct write lithography • Chemical vapor deposition • Electron beam deposition
  • Thermal evaporation • Reactive ion etch • Raman spectroscopy • Electron transport measurements
- Technical software & programming:
  • IGOR Pro • LabVIEW • Maple • MATLAB • Origin • CAD • Excel • PyMol • Python • Latex • C++

AWARDS & HONORS

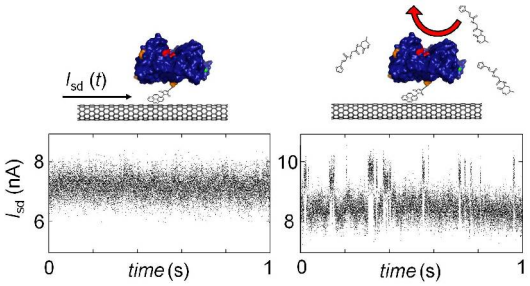
- OSU Physics Graduate Research Award – *Nominated 2010 & 2011*
- New Century Scholarship – *for simultaneously earning Associate degree and high school diploma*
- Wasatch Foundations Scholarship
- WesBanco Grant

SYNERGISTIC ACTIVITY

- Reviewer for *Applied Physics Letters*

SELECTED PUBLICATIONS

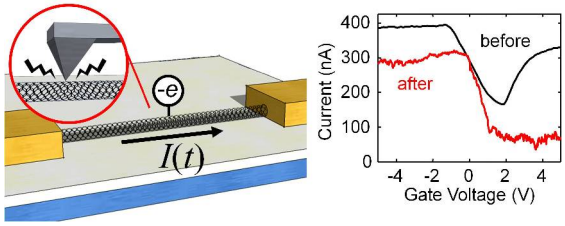
Single-enzyme activity monitored by a nanoelectronic biosensor
Prisbrey, Ripp, Blank, & Minot
(*In Preparation*)



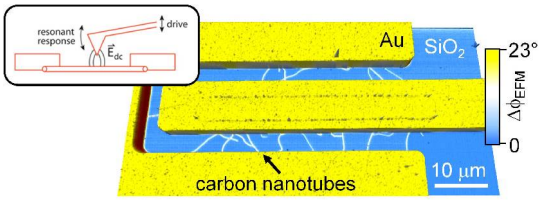
Sensing Angstrom-scale biological motion via Coulomb scattering in carbon nanotubes
Prisbrey, Minot, & Roundy
(*In Preparation*)

Real time monitoring of sp^3 defect creation in individual carbon nanotubes
Prisbrey, Ripp, Blank, Myles, Fifield, & Minot
(*In Preparation*)

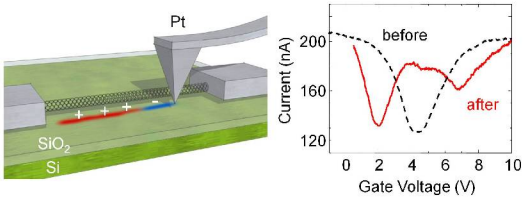
Electrical characteristics of carbon nanotube devices prepared with single oxidative point defects
Prisbrey, Roundy, Blank, Fifield, & Minot
J. Phys. Chem. C **116**, 1961 (2012)



Scanning probe techniques for engineering nanoelectronic devices
Prisbrey, Park, Blank, Moshar, & Minot
Microscopy and Analysis **26**, (2012)
Invited application note for *Asylum Research* (2011)



Controlling the function of carbon nanotube devices with re-writable charge patterns
Prisbrey, DeBorde, Park, & Minot
Appl. Phys. Lett. **99**, 053125 (2011)



Modeling the electrostatic signature of single enzyme activity
Prisbrey, Schneider, & Minot
J. Phys. Chem. B, **114**, 3330 (2010)

Isospin dependence of capture cross sections: the ^{36}S + ^{208}Pb reaction
Yanez, et al.
Phys. Rev. C **82**, 054615 (2010)

Fusion of ^{9}Li with ^{208}Pb
Vinodkumar, et al.
Phys. Rev. C **80**, 054609 (2009)

^{132}Sn + ^{96}Zr reaction: A study of fusion enhancement/hinderance
Vinodkumar, et al.
Phys. Rev. C **78**, 054608 (2008)

REFERENCES

Ethan Minot	Assistant Professor - Oregon State University	(541) 737-9671
Ji-Yong Park	Assistant Professor - Ajou University	+82-31-219-2573

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