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Education

<i>Undergraduate:</i>	Goshen College	Physics/Mathematics	B.A. 1983
<i>Graduate:</i>	University of Wisconsin-Madison	Physics	Ph.D. 1992

Appointments

Principal Member of Technical Staff, Sandia National Laboratories, 1992 - present

Research Associate, University of Wisconsin-Madison, 1986 - 1992

Senior Technical Associate, Bell Laboratories, Murray Hill, NJ, 1983 - 1986

Publications

1. *How Pb-Overlayer Islands Move Fast Enough to Self-Assemble on Pb-Cu Surface Alloys*, M. L. Anderson, N. C. Bartelt, P. J. Feibelman, B. S. Swartzentruber, and G. L. Kellogg, Phys. Rev. Lett., 98(9), 096106 (2007).
2. *Unusually Strong Space-Charge-Limited Current in Thin Wires*, A. A. Talin, F. Léonard, B. S. Swartzentruber, X. Wang, and S. D. Hersee, Phys. Rev. Lett., 101(7), 076802 (2008).
3. *One-Dimensional Defect-Meditated Diffusion of Si Adatoms on the Si(111)-5x2-Au Surface*, E. Bussmann, S. Bockenhauer, F. J. Himpsel, and B. S. Swartzentruber, Phys. Rev. Lett., 101(26), 266101 (2008).
4. *GaN Nanowire Light Emitting Diodes Based on Tempered and Scalable Nanowire Growth Process*, S. D. Hersee, M. Fairchild, A. K. Rishinaramangalam, M. S. Ferdous, L. Zhang, P. M. Varangis, B. S. Swartzentruber, and A. A. Talin, Electronics Letters, 45(1), 75 (2009).
5. *Diameter-Dependent Electronic Transport Properties of Au-Catalyst/Ge-Nanowire Schottky Diodes*, F. Léonard, A. A. Talin, B. S. Swartzentruber, and S. T. Picraux, Phys. Rev. Lett., 102(10), 106805 (2009).
6. *Electrical Transport in GaN Nanowires Grown by Selective Epitaxy*, A. A. Talin, B. S. Swartzentruber, F. Léonard, X. Wang, and S. D. Hersee, J. Vac. Sci. Tech. B, 27(4), 2040 (2009).
7. *Electronic Transport in Nanowires: From Injection-Limited to Space-Charge-Limited Behavior*, F. Léonard, A. A. Talin, A. M. Katzenmeyer, B. S. Swartzentruber, S. T. Picraux, E. Toimil-Molares, J.G. Cederberg, X. Wang, S. D. Hersee, and A. Rishinaramangalam, SPIE, 7406(1), 74060G (2009).
8. *Transport Characterization in Nanowires Using an Electrical Nanoprobe*, A. A. Talin, F. Léonard, A. M. Katzenmeyer, B. S. Swartzentruber, S. T. Picraux, E. Toimil-Molares, J.G. Cederberg, X. Wang, S. D. Hersee, and A. Rishinaramangalam, Sem. Sci. and Tech. (in press).

Graduate Advisor: M. B. Webb, University of Wisconsin-Madison

Thesis Advisor and Postgraduate – Scholar Sponsor: Ph.D. advisees: Lani Sanders, Meredith Anderson. Postdoc scholars sponsored: David Adams, Joseph Carpinelli, Ezra Bussmann, Julio Martinez. Undergraduate research students mentored: Mike Schacht, Melissa Heggen, Matt D'Amato. Graduate students mentored: Kyle Solis.

Synergistic Activities

Awards:

- 2002 Fellow of the American Physical Society
- 1997 Fellow of the American Vacuum Society
- 1997 Peter Mark Award, American Vacuum Society
- 1996 Office of Energy Research's Young Independent Scientist Award, Department of Energy
- 1996 Outstanding Scientific Accomplishment in Solid State Physics, DOE – BES
- 1991 Wayne B. Nottingham Prize, Physical Electronics Conference
- 1990 Student Award, American Vacuum Society – Electronic Materials & Processing Division
- 1990 Dean's Fellowship, UW-Madison
- 1989 Russell & Sigurd Varian Fellow, American Vacuum Society
- 1988 Department of Education Fellowship, UW-Madison
- 1986 Wisconsin Alumni Research Foundation Fellowship, UW-Madison

Publications: **72** journal articles.

Professional Activities

- Member/Fellow of American Physical Society
- Member/Fellow of American Vacuum Society
- Editorial Board of Journal of Scanning Probe Microscopy, 2005-2009
- Local Organizing Committee of the 3rd LEEM/PEEM Workshop, 2002
- Executive Committee of the Electronic Materials and Processing Division, AVS, 1999-2002
- Local Organizing Committee of the 61st Physical Electronics Conference, 2001
- Program Committee of the Nanoscale Science and Technology Division, AVS, 1999
- Executive Committee of the Nanoscale Science and Technology Division, AVS, 1997-1998