

S. TOM PICRAUX

Publications = 275; h-factor = 42; citations > 6500

Nanoscience Related Publications

(Selected journal publications)

- STRAIN DISTRIBUTIONS AND ELECTRONIC PROPERTY MODIFICATIONS IN Si/Ge AXIAL NANOWIRE HETEROSTRUCTURES, J. G. Swadener and S. T. Picraux, *J. Appl. Phys.* 105, 044310 (2009).
- DIAMETER-DEPENDENT ELECTRONIC TRANSPORT OF Au-CATALYST/Ge-NANOWIRE SCHOTTKY DIODES, F. Leonard, A.A. Talin, B.S. Swartzentruber, S.T. Picraux, *Phys. Rev. Lett.* 102, 106805 (2009).
- CONTROLLED NANOPOROUS Pt MORPHOLOGIES BY VARYING DEPOSITION PARAMETERS, Antonia Antoniou, Dhriti Bhattacharrya, J. Kevin Baldwin, Peter Goodwin, Michael Nastasi, S. T. Picraux, Amit Misra, *Appl. Phys. Lett.* (accepted).
- ASSEMBLY AND MAGNETIC PROPERTIES OF NICKEL NANOPARTICLES ON SILICON NANOWIRES, S. Ingole, P. Manandhar, J.A. Wright, E. Nazaretski, J.D. Thompson, S.T. Picraux, *Appl. Phys. Lett.* 94, 223118 (2009).
- VERTICAL GROWTH OF Ge NANOWIRES FROM BIOTEMPLATED Au NANOPARTICLE CATALYSTS, Yajaira Sierra-Sastre, Sukgeun Choi, S. T. Picraux, Carl A. Batt, *J. of the Amer. Chem. Soc.* 130, 10488 (2008).
- EX-SITU DOPING OF SILICON NANOWIRES WITH BORON, S. Ingole, P. Manandhar, S.B. Chikkannanavar, E.A. Akhadov, D.J. Smith, S.T. Picraux, *J. Appl. Phys.* 103, 104302 (2008).
- ULTRAFAST ELECTRON AND HOLE DYNAMICS IN GERMANIUM NANOWIRES, R.P. Prasankumar, S. Choi, S.A. Trugman, S.T. Picraux, A.J. Taylor, *Nano Lett.* 8, 1619 (2008).
- CHARGE TRANSPORT CHARACTERISTICS IN BORON DOPED SILICON NANOWIRES, S. Ingole, P. Manandhar, S. B. Chikkannanavar, E. A. Akhadov, S. T. Picraux, *IEEE Trans. on Electron Devices* [special issue on Nanowire Electronics] 55, 2931-2938 (2008).
- MAGNETIC MOVEMENT OF BIOLOGICAL FLUIDS, A. A. Garcia, A. Egatz-Gomez, S. A. Lindsay, S. Melle, M. Marquez, P. Domínguez-Garcia, M. A. Rubio, S. T. Picraux, D. Yang, P. Aella, M. A. Hayes, D. Gust, S. Loyprasert, T. Vazquez-Alvarez, J. Wang, *J. of Magnetism and Magnetic Materials* 311, 238-243 (2007).
- EVAPORATIVE PROPERTIES AND PINNING STRENGTH OF LASER-ABLATED, HYDROPHILIC SITES ON LOTUS LEAF-LIKE, NANOSTRUCTURED SURFACES, M.L. McLauchlin, D. Yang, P. Aella, A.A. Garcia, S.T. Picraux, and M.A. Hayes, *Langmuir* 23, 4871-4877 (2007)

S. Tom Picraux - Publications

- SILICON NANOWIRE AND POLYETHYLENE SUPERHYDROPHOBIC SURFACES FOR DISCRETE MAGNETIC MICROFLUIDICS, Ana Egatz-Gómez, John Schneider, P. Aella, D. Yang, P. Domínguez-García, Solitaire Lindsay, S. T. Picraux, Miguel A. Rubio, Sonia Melle^{1,5}, Manuel Marquez^{1,6}, Antonio A. García, Appl. Surface Science 254, 330-334 (2007).
- INFLUENCE OF PLASMA STIMULATION ON Si NANOWIRE NUCLEATION AND ORIENTATION DEPENDENCE, P. Aella, S. Ingole, W. T. Petuskey, S.T. Picraux, Adv. Matls. 19, 2603-2607 (2007). [Cover Picture for Adv. Matls for Sept. 2007 (Issue 18)].
- SELF ASSEMBLY OF NANOWIRE-METAL CONTACTS USING ELECTRODEPOSITION, S. Ingole, P. Aella, Sean J. Hearne, S.T. Picraux, Appl. Phys. Lett. 91, 33106 (2007). [Cover Picture for APL 16 July 2007 issue].
- PHOTON CONTROL OF LIQUID MOTION ON REVERSIBLY PHOTORESPONSIVE SURFACES, D. Yang, M. Piech, N.S. Bell, D. Gust, S. Vail, A.A. Garcia, J. Schneider, C-D Park, M.A. Hayes, S.T. Picraux, Langmuir 23, 10864-10872 (2007).
- ON BEAM ANALYSIS OF VLS GROWN Ge NANOSTRUCTURES ON Si, J.L. Taraci, T. Clement, J.W. Dailey, J. Drucker, S.T. Picraux, Nuclear Instrum. & Methods B 242, 205-208 (2006).
- THE FORMATION OF NANOPOROUS NOBLE METAL THIN METAL FILMS ON Si BY ELECTROCHEMICAL DEALLOYING OF Pt_xSi_{1-x}, J. C. Thorp, K Sieradzki, T. Michael, P. Crozier, D. Mitlin, A. Misra, M. Nastasi, S.T. Picraux, Appl. Phys. Lett. 88, 33110-33112 (2006).
- METHOD FOR STRAIN MAPPING IN NANOWIRES, J.L. Taraci, M.J. Hÿtch, T. Clement, P. Peralta, M.R. McCartney, Jeff Drucker, S.T. Picraux, Nanotechnology 16, 2365-2371 (2005)
- IN SITU STUDY OF SEMICONDUCTOR NANOWIRE GROWTH USING OPTICAL REFLECTOMETRY, T. Clement, S. Ingole, S. Ketharanathan, J. Drucker, and S.T. Picraux, Appl. Phys. Lett. 89, 163125 (2006) <http://link.aip.org/link/?APL/89/163125>
- DISCRETE MAGNETIC MICROFLUIDICS, Ana Egatz-Gómez, Sonia Melle, Antonio A. García, S.A. Lindsay, M. Marquez, P. Domínguez-García, M.A. Rubio, S.T. Picraux, J. L.. Taraci, T. Clement, D. Yang, Mark A. Hayes, Devens Gust, Pablo Domínguez-García, Appl. Phys. Lett. 89, 034106 (2006).
- NANOPILLAR GROWTH MODE BY VAPOR-LIQUID-SOLID Epitaxy, J. Taraci, J. W. Dailey, T. Clement, David J. Smith, Jeff Drucker, S. T. Picraux, Appl. Phys. Lett. 84, No. 26, 5302-5304 (2004). [also in June 28, 2004 issue of Virtual Journal of Nanoscale Science & Technology]
- LOTUS EFFECT AMPLIFIES LIGHT-INDUCED CONTACT ANGLE SWITCHING, R. Rosario, D. Gust, A. A. Garcia, M. Hayes, J. Taraci, T. Clement, J. W. Dailey, S. T. Picraux, J. Phys. Chem. B Letters 108, 12640-12642 (2004).

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- VAPOR-LIQUID-SOLID GROWTH OF GERMANIUM NANOSTRUCTURES ON SILICON, J.W. Dailey, J. Taraci, T. Clement, D.J. Smith, J. Drucker, S.T. Picraux, J. Appl. Phys. 96, 7556-7567 (2004).
- DIRECT OBSERVATION OF PHOTO SWITCHING IN TETHERED SPIROPYRANS USING THE INTERFACIAL FORCE MICROSCOPE, B. C. Bunker, B. I. Kim, J. E. Houston, R. Rosario, A. A. Garcia, M. Hayes, D. Gust, and S. T. Picraux, Nano Letters 3, 1723-1727 (2003).
- IMPLICATIONS OF EMERGING MICRO- AND NANOTECHNOLOGIES, S.R.J. Brueck, S. T. Picraux, et al. (The National Academies Press, Washington, 2002) pp 1-243.