

## Puxian Gao - Full Publication List

K.-T. Liao, P. Shimpi, and P.X. Gao, "Thermal oxidation of Cu nanofilm on three dimensional ZnO nanorod arrays," J. Mater. Chem., 2011, DOI:10.1039/C1JM10762C.

P. Shimpi, S. Yadav, R. Ramprasad, and P.X. Gao, "Conversion of [0001] Textured ZnO Nanofilm into [01-10] Directed Nanowires Driven by CO Adsorption: In-Situ Carbothermal Synthesis and Complementary First Principles Thermodynamics Simulations," J. Phys. Chem. C, 2011, 115, 7372.

G. Liu, and P.X. Gao, "A review of NO<sub>x</sub> storage/reduction catalysts: Mechanism, materials and degradation studies," Catal. Sci. Technol., 2011, DOI:10.1039/C1CY00007A.

H.Y. Gao, M. Staruch, M. Jain, P.X. Gao, P. Shimpi, Y.B. Guo, W.J. Cai, and H.-J. Lin, "Structure and magnetic properties of three-dimensional (La,Sr)MnO<sub>3</sub> nanofilms on ZnO nanorod arrays," Appl. Phys. Letts, 2011, 98, 123105.

S. Dardona, A. Peles, G. Wrobel, M. Piech, P.X. Gao, "Gas adsorption and high-emission current induced degradation of field emission characteristics in solution-processed ZnO nanoneedles," J. Appl. Phys., 2010, 108, 124318.

P. Shimpi, Y. Ding, E. Surez, J. Ayers, and P.X. Gao, "Annealing induced nanostructure and photoluminescence property evolution in solution-processed Mg-alloyed ZnO nanowires," Appl. Phys. Lett., 2010, 97, 103104.

Conference Proceedings: P.X. Gao, P. Shimpi, et al., Hierarchical Composite Nanowires for Energy, Environmental and Sensing Applications, Proceedings of SPIE Photonics West, San Francisco, CA, Jan. 22-27, 2011. (invited)

P. Shimpi, Y. Ding, E. Surez, J. Ayers, and P.-X.Gao, "Annealing induced nanostructure and photoluminescence property evolution in solution-processed Mg-alloyed ZnO nanowires," Appl. Phys. Lett., 2010, 97, 103104.

P.-X. Gao, "Metal-catalyzed Nanoarchitectures of Zinc Oxide and their Applications", Chapter 13 in Metal Oxide Nanostructures and Their Applications, Volume 5, pp. 513-545, Ahmad Umar Eds, American Scientific Publisher, Stevenson Ranch, CA, 2010. (invited)

M.F. Sarac, P. Shimpi, J.A. Mackey, D.S. Kim, and P.-X.Gao, "Surface Dezincification and Selective Oxidation induced Heterogeneous Semiconductor Nanowire/Nanofilm Network Junctions," Cryst. Growth Des., 2010, Article ASAP, DOI: 10.1021/cg100486g.

H.Y. Gao, W.J. Cai, P. Shimpi, H.-J. Lin, and P.-X. Gao, "(La,Sr)CoO<sub>3</sub>/ZnO nanofilm-nanorod diode arrays for photo-responsive moisture and humidity detection," J. Phys. D: Appl. Phys., 2010, 43, 272002. (Fast track communication)

D.S. Kim+, P. Shimpi+, and P.-X. Gao, "Isothermal gas flow separation of helical ZnS nanowires and nanobelts," Sci. Adv. Mater., 2010, 2(3), 421-427. (invited; + equal contribution)

W.J. Cai, P. Shimpi, D.L. Jian, and P.-X. Gao, "Oxide-catalyzed growth of Ag<sub>2</sub>O/Zn<sub>2</sub>SnO<sub>4</sub> hybrid nanowires and their reversible catalytic ambient ethanol/oxygen detection," J. Mater. Chem., 2010, 20, 5265-5270. (Front Cover)

P. Shimpi, and P.-X. Gao, "Carbon-assisted and strain driven lateral alignment of silica nanowires," Crys. Eng. Comm., 2010, DOI: 10.1039/c000516a..

Y. Xi, C. G. Hu, P.-X. Gao, R. S. Yang, X. S. He, and X. Wang, "Temperature-dependent phase-transformation associated shape-evolution and catalytic degradation activity of Cu<sub>x</sub>O (x=1, 2) nanocrystals," Mater. Sci. Eng. B, 2010, 166, 113.