ALEX PUNNOOSE

LIST OF REFEREED PUBLICATIONS AND PATENTS
(** indicates undergraduate students, * indicates graduate students)

2015


2014


12. Cytotoxicity of ZnO nanoparticles can be tailored by modifying their surface structure: A green chemistry approach for safer nanomaterials" Punnoose, Alex; Dodge, Kelsey**; Rasmussen, John; Chess, Jordan**; Wingett, Denise; Anders, Catherine*, ACS Sustainable Chem. Eng., 2014, 2 (7), pp 1666–1673.

13. Tuning the Bandgap and Cytotoxicity of ZnO by Tailoring the Nanostructures; Jianhui Zhang, Guanjun Dong*, Aaron Thurber, Yayi Hou, Dmitri A. Tenne, Charles B. Hanna, Min Gu, Zhongda Pan, Kaiyu Wang, Youwei Du, and Alex Punnoose, Particle and Particle System Characterization, Volume 32, Issue 5, pages 596–603, May 2015.


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17. Ferromagnetism in Annealed Ce$_{0.95}$Co$_{0.05}$O$_2$ and Ce$_{0.95}$Ni$_{0.05}$O$_2$ Nanoparticles, S. K. Misra, S. I. Andronenko, J. D. Harris, A. Thurber, G. L. Beausoleil II**, and A. Punnoose, Journal of Nanoscience and Nanotechnology, 13, 6798-805, 2013.


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26. Improving the selective cancer killing ability of ZnO nanoparticles using Fe doping, Aaron Thurber, Denise G. Wingett, John W. Rasmussen, Janet Layne*, Lydia Johnson*, Dmitri A. Tenne, Jianhui Zhang, Charles B. Hanna, and Alex Punnoose, Nanotoxicology, June 2012, Vol. 6, No. 4 : Pages 440-452.

27. Tuning the properties of ZnO, hematite, and Ag nanoparticles by adjusting the surface charge, Jianhui Zhang, Guanjun Dong, Aaron Thurber, Yayi Hou*, Min Gu, Dmitri A. Tenne, C. B. Hanna, and Alex Punnoose, Advanced Materials 24:1232-7 (2012).

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35. Highly shape-selective synthesis, silica coating, self-assembly, and magnetic hydrogen sensing of hematite nanoparticles, Jianhui Zhang, Aaron Thurber, Charles Hanna and Alex Punnoose, Langmuir 26, 5273 (2010).


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41. Influence of oxygen level on structure and ferromagnetism in Sn$_{0.95}$Fe$_{0.05}$O$_2$ nanoparticles. A. Thurber*, K. M. Reddy and A. Punnoose, Journal of Applied Physics, 105, 07E706 (2009).


47. Transition from n-type to p-type destroys ferromagnetism in semi-conducting Sn$_{1-x}$Co$_x$O$_2$ and Sn$_{1-x}$Cr$_x$O$_2$ nanoparticles. C. Van Komen**, A. Punnoose and M. S. Seehra. *Solid State Communications* 149, 2257 (2009).

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60. “Mapping ferromagnetism in Ti$_{1-x}$Co$_x$O$_2$ – Role of preparation temperature (200 – 900°C) and doping concentration (0.00015 < x < 0.1)”; K. M. Reddy and A. Punnoose, Journal of Applied Physics, 101 09H112 (2007).


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64. “Structural modifications of SnO$_2$ due to the incorporation of Fe into the lattice” Xavier Mathew, C. Mejía-García*, J. P. Enriquez, G. Contreras-Puente, J. Hays** and A. Punnoose, Journal of Applied Physics, 100, 073907 (2006).


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2003


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“Deviations from the curie-law variation of magnetic susceptibility in antiferromagnetic nanoparticles” M. S. Seehra and A. Punnoose; Physical Review B, 64, 132410/1-4, (2001).

“Structure, properties and roles of the different constituents in Pt/WO\textsubscript{x}/ZrO\textsubscript{2} catalysts” A. Punnoose, M. S. Seehra and I. Wender, Fuel Processing Technology, 74, 33-47 (2001).


**PATENTS**

1. US patent number 7,939,560, Fluorescent Particulates Comprising Nanoscale ZnO Layer and Exhibiting Cell-Specific Toxicity.


5. 13/079,594 filed April 4, 2011, Nanoparticles that Preferentially Associate with and Kill Diseased Cells for Diagnostic and Therapeutic Applications.

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