

## Publications in Peer Reviewed Journals

1. Yue Wu, Zhihua Xu, Bin Hu, and Jane Howe, "Tuning magnetoresistance and magnetic-field-dependent electroluminescence through mixing a strong-spin-orbital-coupling molecule and a weak-spin-orbital-coupling polymer," *Phys. Rev. B* **75**, 035214 (2007)
2. Y. Wu, A. P. Li, J. Howe, J. Shen, and B. Hu, "Magnetic Field-Dependent Electroluminescence in Organic Polymer with Ferromagnetic Cobalt Nanocluster Electrode," accepted, *Advanced Materials* (2006).
3. R. Jin, Z. X. Zhou, D. Mandrus, I.N. Ivanov, G. Eres, J.Y. Howe, A.A. Puretzky, and D.B. Geohegan, "The Effect of Annealing on the Electrical and Thermal Transport Properties of Macroscopic Bundles of Long Multi-Wall Carbon Nanotubes," *Physica B* **388** 326–330 (2007).
4. Ilia Ivanov, Alexander Puretzky, Gyula Eres, Hsin Wang, Zhengwei Pan, Hongtao Cui, Rongying Jin, Jane Howe, and David B. Geohegan, "Fast and Highly Anisotropic Thermal Transport Through Vertically Aligned Carbon Nanotube Arrays," *Appl. Phys. Lett.* **89**, 223110 (2006).
5. J.Y. Howe, G.G. Tibbetts, C. Kwag, and M.L. Lake, "Heat treating carbon nanofibers for optimal composite performance," *J. Mater. Res.* **21**(10) 2646-2652 (2006).
6. Stephen Jesse, Michael A. Guillorn, Ilia N. Ivanov, Alexander A. Puretzky, Jane Y. Howe, Phillip F. Britt, and David B. Geohegan, "In situ electric-field-induced contrast imaging of electronic transport pathways in nanotube-polymer composites," *Appl. Phy. Lett.* **89** 013114 (2006).
7. Yue Wu, Bin Hu, and Jane Howe, "Morphology-dependent exciton emission and energy transfer in fluorene-polymer-related fluorescent and phosphorescent composite films spin cast from a mixture of two dissimilar organic solvents," *J. Appl. Phy.* **98** 103510 (2005).
8. G. Zhang, J.Y. Howe, D.W. Coffey, D.A. Blom, L.F. Allard, and J. Cho, "A biomimetic approach to the deposition of ZrO<sub>2</sub> films on self-assembled nanoscale templates," *Mater. Sci. Eng. C* (on line) (2005).
9. R.D. Evans, J.Y. Howe, J. Bentley, G.L. Doll, and J.T. Glass, "Influence of deposition parameters on the composition and structure of reactively sputtered nanocomposite TaC/a-C:H thin films," *J. Mater. Res.* **20**(9) 2583-96 (2005)
10. Zun Chen, Rodney Trice, Hsin Wang, Wally Porter, Jane Howe, Matthew Besser, and Daniel Sordelet, "Co-Doping of Air Plasma-Sprayed Yttria- and Ceria-Stabilized Zirconia for Thermal Barrier Applications," *J. Am. Ceram. Soc.* **88**[6] 1584–1590 (2005).
11. Zheng Gai, J. Y. Howe, Jiandong Guo, D. A. Blom, E. W. Plummer, and J. Shen, "Self-assembled FePt nanodot arrays with mono-dispersion and -orientation," *App. Phy. Lett.* **86** 023107 (2005), (selected for *Virtual Journal of Nanoscale Science & Technology* - January 17, 2005, Volume 11, Issue 2).
12. J.Y. Howe, L.E. Jones, "Influence of boron doping on the oxidation behavior of graphite fiber, P120," *Carbon* **42** 461-467 (2004).
13. X. Fan, R. Buczko, A.A. Puretzky, D.B. Geohegan, J.Y. Howe, S.T. Pantelides, and S.J. Pennycook, "Nucleation of Single-Walled Carbon Nanotubes," *Phys. Rev. Lett.* **90**(14) 145501 (2003).
14. D. B. Geohegan, A. A. Puretzky, I. N. Ivanov, S. Jesse, G. Eres, and J.Y. Howe, "*In-situ* Growth Rate Measurements and Length Control During Chemical Vapor Deposition of Vertically-Aligned Multiwall Carbon Nanotubes," *Appl. Phy. Lett.* **83**, 1851 (2003).
15. H. Cui, G. Eres, J.Y. Howe, A. Puretzky, M. Varela, D.B. Geohegan, and D.H. Lowndes, "Growth Behavior of Carbon Nanotubes on Multilayered Metal Catalyst Film in Chemical Vapor Deposition," *Chem. Phy. Lett.* **374**(3/4) 222-228 (2003).
16. J.Y. Howe, C.J. Rawn, L.E. Jones, and H. Ow, "Improved Crystallographic Data for Graphite", *Powder Diffraction* **18**(2) 150-154 (2003).

17. J.Y. Howe, L.E. Jones, and D.N. Braski, “An Auger and XPS Study of CVD and Natural Diamonds,” Mat. Res. Soc. Symp. Proc. **593** 453-458 (2001).
18. J.Y. Howe, L.E. Jones, and D.W. Coffey, “The evolution of microstructure of CVD diamond by oxidation,” *Carbon* **38** 931-933 (2000).