

Magnetic Nanoassemblies

Relevant Publications

Nanopatterning of Magnetic Materials

Marek Malac, Marvin Schoefield, Yimei Zhu, and Ray Egerton, "Exposure characteristics of cobalt fluoride (CoF₂) self-developing electron-beam resist on sub-100 nm scale" *J. Appl. Phys.* **92**, 1112 (2002).

Advanced TEM-based Magnetic Domain Imaging

Y. Zhu, V.V. Volkov and M. De Graef, "Understanding magnetic structures in permanent magnets via in-situ Lorentz microscopy, interferometric and non-interferometric phase-reconstructions", *J. of Electron microscopy*, 50 447-455 (2001)

V.V. Volkov, Y. Zhu and M. De Graef, "A new symmetrized solution for phase retrieval using the Transport of Intensity Equation", *Micron* 33 411-416 (2002).

Interactions in Magnetic Nanodispersions

D.C. Crew, J. Kim, L.H. Lewis, K. Barmak. Interdiffusion in bilayer CoPt/Co films: potential for tailoring the magnetic exchange spring. *Journal of Magnetism and Magnetic Materials* 233, 257-273 (2001)

L.H. Lewis, A.R. Moodenbaugh, D.O. Welch and V. Panchanathan. Stress, strain and technical magnetic properties in 'exchange-spring' Nd₂Fe₁₄B+α-Fe nanocomposite magnets. *Journal of Physics D: Applied Physics* 34, 744-751 (2001)

R. V. Chamberlin, J. Hemberger, A. Loidl, K. D. Humfeld, D. Farrell, S. Yamamoto, Y. Ijiri, and S. A. Majetich, "Percolation, relaxation halt, and retarded van der Waals interaction in dilute systems of iron nanoparticles" *Phys. Rev. B* **66**, 172403 (2002).

J. van Lierop, L. H. Lewis, K. E. Williams and R. J. Gambino, "Magnetic exchange effects in a nanocomposite Ni/NiO film", *J. Appl. Phys.*, **91** 7233 (2002).

Tianbo Liu, "An Unusual Slow Self-Assembly of Giant Inorganic Ions in Aqueous Solution", *J. Am. Chem. Soc.*, **2003**, 125, 312-313.

Synchrotron Magnetic Speckle Imaging

C. Sanchez-Hanke, D. Lott, J. Stohr, and C.-C. Kao, "Application of polarization modulation spectroscopy to the study of magnetic materials", *Rev. Sci. Instrum.* **73**, 1639 (2002).

Computation and Theory of Magnetic Nanosystems

W. Fernando, R. E. Watson, M. Weinert, A. N. Kocharian, A. Ratnaweera, and K. Tennakone, "Magnetic moment of iron in metallic environments", *Phys. Rev. B* **61**, 375 (2000).

Matej Komelj, Claude Ederer, James W. Davenport, and Manfred Fähnle "From the bulk to monatomic wires: An ab initio study of magnetism in Co systems with various dimensionality", *Phys. Rev. B* **66**, 140407 (2002).