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**PUBLICATIONS AND PRESENTATIONS**  
(Updated: May 11, 2006)

Refereed Publications in Print

43. "Possible large spin-phonon coupling in magnetite",  
R. J. McQueeney, M. Yethiraj, W. Montfrooij, J. S. Gardner, J. Honig,  
*Physica B*, in press.
42. "Investigation of the presence of charge order in magnetite by measurement of the spin wave spectrum",  
R. J. McQueeney, M. Yethiraj, W. Montfrooij, J. S. Gardner, J. Honig,  
*Phys. Rev. B* **73**, 174409 (2006).
41. "Invar model for  $\delta$ -phase Pu: Thermal expansion, elastic and magnetic properties",  
A. C. Lawson, J. A. Roberts, B. Martinez, M. Ramos, G. Kotliar, F. W. Trouw,  
M. R. Fitzsimmons, M. P. Hehlen, J. C. Lashley, H. Ledbetter, R. J. McQueeney,  
A. Migliori,  
*Philos. Mag.* **86**, 2713 (2006).
40. "Absence of magnetic moments in plutonium",  
J. C. Lashley, A. C. Lawson, R. J. McQueeney, and G. H. Lander,  
*Phys. Rev. B* **72**, 054416 (2005).
39. "The role of grain boundaries in determining the transport properties of magnetite",  
D. C. Mertens, K. Paul, W. Montfrooij, R. J. McQueeney, M. Yethiraj, J. M. Honig,  
*J. App. Phys.* **97**, 10A303 (2005).
38. "Magnetic structure of the local-moment antiferromagnet CeCuSn",  
S. Chang, V. O. Garlea, Y. Janssen, J. L. Zarestky, H. Nakotte, R. J. McQueeney,  
*J. Appl. Phys.* **97**, 10A913 (2005).
37. "Effect of the Verwey transition in the spin waves in magnetite",  
R. J. McQueeney, M. Yethiraj, W. Montfrooij, J. S. Gardner, J. Honig,  
*J. Appl. Phys.* **97**, 10A902 (2005).
36. "Magnetic Structure of  $Gd_5Ge_4$ ",  
L. Tan, A. Kreyssig, J. W. Kim, A. I. Goldman, R. J. McQueeney, D. Wermeille,  
B. Sieve, T. A. Lograsso, D. L. Schlagel, S. L. Budko, V. K. Pecharsky  
and K. A. Gschneidner, Jr.,  
*Phys. Rev. B* **71**, 214408 (2005).

Refereed Publications in Print (continued)

35. “YbGaGe: normal thermal expansion”,  
Y. Janssen, S. Chang, B. K. Cho, A. Llobet, K. W. Dennis, R. W. McCallum, R. J. McQueeney, and P. C. Canfield,  
*J. Alloys and Compounds* **389**, 10 (2005).
34. “Vibrational edge modes in intrinsically inhomogeneous doped transition metal oxides”,  
I. Martin, R. J. McQueeney, A. R. Bishop, Z. G. Yu,  
*Phys. Rev. B* **70**, 224514 (2004).
33. “Crystalline electric field effects in CeMIn<sub>5</sub> (M=Co, Rh, Ir): superconductivity and the influence of Kondo spin fluctuations”  
A. D. Christianson, E. D. Bauer, J. M. Lawrence, P. S. Riseborough, N. O. Moreno, P. G. Pagliuso, J. L. Sarrao, J. D. Thompson, E. A. Goremychkin, F. R. Trouw, M. P. Hehlen, R. J. McQueeney,  
*Phys. Rev. B* **70**, 134505 (2004).
32. “Crystalline electric field excitations in the heavy fermion superconductor CeCoIn<sub>5</sub>”  
E. D. Bauer, A. D. Christianson, J. M. Lawrence, E. A. Goremychkin, N. O. Moreno, N. Curro, J. L. Sarrao, J. D. Thompson, R. J. McQueeney, W. Bao, and R. Osborn  
*J. Appl. Phys.* **95**, 7201 (2004).
31. “Unusual phonon softening in δ-phase plutonium”,  
R. J. McQueeney, A. C. Lawson, A. Migliori, T. M. Kelley, B. T. Fultz, M. Ramos, J. C. Lashley, B. Martinez, S. Vogel  
*Phys. Rev. Lett.* **92**, 146401 (2004).
30. “Experimental electronic heat capacities of α- and δ-plutonium: Heavy-fermion physics in an element”,  
J.C. Lashley, J. Singleton, A. Migliori, J.B. Betts, R. A. Fisher, J. L. Smith, and R. J. McQueeney,  
*Phys. Rev. Lett.* **91**, 205901 (2003).
29. “The electronic heat capacity of high-purity alpha and stabilized-delta plutonium”,  
J.C. Lashley, A. Migliori, J. Singleton, R. J. McQueeney, M. Blau, R. A. Pereyra, and J. L. Smith,  
*J. of Metals* **55**, 34 (2003).

Refereed Publications in Print (continued)

28. "Phonon dispersion in uranium measured using inelastic X-ray scattering",  
M. E. Manley, G. H. Lander, H. Sinn, A. Alatas, W. L. Hults, R. J. McQueeney,  
J. L. Smith, and J. Willit,  
*Phys. Rev. B* **67**, 052302 (2003).
27. "No role for phonon entropy in the fcc $\rightarrow$ fcc volume collapse transition in Ce<sub>0.9</sub>Th<sub>0.1</sub>",  
M. E. Manley, R. J. McQueeney, B. Fultz, T. Swan-Wood, O. Delaire,  
E. A. Goremychkin, J. C. Cooley, W. L. Hults, J. C. Lashley, R. Osborn,  
J. L. Smith,  
*Phys. Rev. B* **67**, 014103 (2003).
26. "In-plane anisotropy and temperature dependence of oxygen phonon modes in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>6.95</sub>",  
J.-H. Chung, T. Egami, R. J. McQueeney, M. Yethiraj, M. Arai, T. Yokoo,  
Y. Petrov, H. A. Mook, Y. Endoh, S. Tajima,  
*Phys. Rev. B*, **67**, 014517 (2003).
25. "Pharos — A Chopper Spectrometer for Inelastic-Neutron-Scattering Studies of Excitations in Materials",  
R. J. McQueeney and R.A. Robinson  
*Neutron News* **14**, 36 (2003).
24. "Phonon dispersion measurements of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>6.15</sub> and YBa<sub>2</sub>Cu<sub>3</sub>O<sub>6.95</sub> by time-of-flight neutron spectroscopy",  
J.-H. Chung, T. Egami, R. J. McQueeney, M. Yethiraj, M. Arai, T. Yokoo,  
H. A. Mook, Y. Endoh, S. Tajima, C. Frost,  
*J. of Superconductivity* **15**, 327 (2002).
23. "Electron-phonon interactions in HTSC cuprates",  
T. Egami, J.-H. Chung, R. J. McQueeney, M. Yethiraj, H. A. Mook, C. Frost,  
Y. Petrov, F. Dogan, Y. Inamura, M. Arai, S. Tajima, Y. Endoh,  
*Physica B* **316**, 62 (2002).
22. "Lattice and charge effects in high-temperature superconductors",  
T. Egami, R. J. McQueeney, J.-H. Chung, M. Yethiraj, H. A. Mook, M. Arai,  
Y. Inamura, Y. Endoh, S. Tajima, C. Frost,  
*Appl. Phys. A* **74**, S1635 (2002).
21. "New oxygen lattice modes in the metallic region of La<sub>2-x</sub>Sr<sub>x</sub>CuO<sub>4</sub>",  
R. J. McQueeney, J. L. Sarrao, P. G. Pagliuso, P. W. Stephens, R. Osborn,  
*Appl. Phys. A* **74**, S1621 (2002).

Refereed Publications in Print (continued)

20. "Vibrational and electronic entropy of  $\beta$ -cerium and  $\gamma$ -cerium measured by inelastic neutron scattering",  
M. E. Manley, R. J. McQueeney, B. Fultz, R. Osborn, G. H. Kwei,  
P. D. Bogdanoff,  
*Phys. Rev. B* **65**, 144111 (2002).
19. "Bond-stretching phonon anomalies in stripe-ordered  $\text{La}_{1.69}\text{Sr}_{0.31}\text{NiO}_4$ ",  
J. M. Tranquada, K. Nakajima, M. Braden, L. Pintschovius, R. J. McQueeney,  
*Phys. Rev. Lett.* **88**, 075505 (2002).
18. "Mixed lattice and charge states in high-temperature superconductors",  
R. J. McQueeney, J. L. Sarrao, P. G. Pagliuso, P. W. Stephens, R. Osborn,  
*Phys. Rev. Lett.* **87**, 077001 (2001).
17. "Unexpected similarity of the dynamic magnetic susceptibility of  $\beta$ -cerium and  $\gamma$ -cerium",  
R. J. McQueeney, M. E. Manley, B. Fultz, G. H. Kwei, R. Osborn, P. Bogdanoff,  
*Philos. Mag. B* **81**, 675 (2001).
16. "Large harmonic softening of the phonon density-of-states of Uranium",  
M. E. Manley, B. Fultz, R. J. McQueeney, C. M. Brown, J. L. Hults, J. L. Smith,  
D. Thoma, R. Osborn, J. L. Robertson,  
*Phys. Rev. Lett.* **86**, 3076 (2001).
15. "Phonon densities of states of  $\gamma$ -cerium and  $\delta$ -cerium measured by TOF inelastic neutron scattering",  
M. E. Manley, R. J. McQueeney, J. L. Robertson, B. Fultz, and D. A. Neumann,  
*Philos. Mag. Lett.* **80**, 591 (2000).
14. "Charge localization and phonon spectra in hole-doped  $\text{La}_2\text{NiO}_4$ ",  
R. J. McQueeney, A. R. Bishop, Ya-sha Yi, Z. G. Yu,  
*J. Phys.: Condens. Matter* **12**, L317 (2000).
13. "Commensurate dynamic magnetic correlations in  $\text{La}_2\text{Cu}_{0.9}\text{Li}_{0.1}\text{O}_4$ ",  
Wei Bao, R. J. McQueeney, R. Heffner, J. L. Sarrao, P. Dai, J. Zarestky,  
*Phys. Rev. Lett.* **84**, 3978 (2000).
12. "Phonon densities of states of  $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ : Evidence for strong electron-lattice coupling",  
R. J. McQueeney, J. L. Sarrao, and R. Osborn  
*Phys. Rev. B* **60**, 80 (1999).

Refereed Publications in Print (continued)

11. "Phonon densities of states of  $\gamma$ -cerium and  $\delta$ -cerium measured by inelastic neutron Scattering",  
J. L. Robertson, H. N. Frase, B. Fultz, and R. J. McQueeney,  
*Philos. Mag. Lett.* **79**, 297 (1999).
10. "Anomalous dispersion of LO phonons in  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$  at low temperatures",  
R. J. McQueeney, Y. Petrov, T. Egami, M. Yethiraj, G. Shirane, and Y. Endoh,  
*Phys. Rev. Lett.* **82**, 628 (1999).
9. "Dynamic radial-distribution function from inelastic neutron scattering",  
R. J. McQueeney,  
*Phys. Rev. B* **57**, 10560 (1998).
8. "A local dynamic correlation function from inelastic neutron scattering",  
R. J. McQueeney,  
*Physica B* **241-243**, 412 (1998).
7. "Observation of transverse phonon modes in the first Brillouin zone in aluminum",  
R. A. Robinson, R. J. McQueeney and T. M. Kelley,  
*Physica B* **241-243**, 161 (1998).
6. "Nonuniform metallic state in manganites and cuprates",  
T. Egami, D. Louca, and R. J. McQueeney,  
*J. Supercond.* **10**, 323 (1997).
5. "Wide and asymmetric oxygen bond-stretching phonons in  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ ",  
R. J. McQueeney, T. Egami, G. Shirane, and Y. Endoh,  
*Phys. Rev. B* **54**, R9689 (1996).
4. "Unconventional electron-phonon interaction and anharmonicity in superconducting cuprates",  
T. Egami, R. J. McQueeney, W. Dmowski, N. Seiji, H. Yamauchi, M. Arai,  
S. Ishihara, and M. Tachiki,  
*Physica B* **219&220**, 145 (1996).
3. "Lattice effects in HTSC cuprates observed by neutron scattering",  
T. Egami, R. J. McQueeney, and S. Ishihara,  
*Czech. J. of Phys.* **46**, 1249, (1996).

Refereed Publications in Print (continued)

2. "Temperature dependent x-ray diffuse scattering from single crystals of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ",  
W. Dmowski, R. J. McQueeney, T. Egami, Y. P. Feng, S. Sinha, T. Hinatsu, and S. Uchida,  
*Phys. Rev. B* **52**, 6829 (1995).
1. "Dynamic local lattice distortion in  $\text{YBa}_2\text{Cu}_4\text{O}_8$ ",  
T. Egami, W. Dmowski, R. J. McQueeney, M. Arai, N. Seiji, and H. Yamauchi,  
*J. Supercond.* **8**, 587 (1995).

Contributed Papers.

11. "Electrons and spins: Can't we all just get along?"  
R. J. McQueeney, J. Ma, S. Chang, J.-Q. Yan, M. Hehlen, F. Trouw  
*LANSCE Activity Report - Research Highlight* (2006).
10. "The importance of high temperature electron-phonon coupling to the thermodynamic properties of  $\text{Ce}_{0.9}\text{Th}_{0.1}$  and other *f*-electron bonded metals",  
M. E. Manley, R. J. McQueeney, B. Fultz, T. Swan-Wood, O. Delaire, E. A. Goremychkin, J. C. Cooley, W. L. Hults, J. C. Lashley, R. Osborn, J. L. Smith,  
*Mat. Res. Soc. Symp. Proc.*, **802** (2004).
9. "Phonon dispersion in actinides measured with inelastic x-ray scattering: New opportunities to solve some old problems",  
M. E. Manley, G. H. Lander, H. Sinn, A. Alatas, W. L. Hults, R. J. McQueeney, J. C. Lashley, J. L. Smith, J. Willitt,  
*Plutonium Futures – The Science*, edited by G. D. Jarvinen, AIP, pp. 15-18 (2003).
8. "Plutonium - Phonon Measurements on Pharos"  
R.J. McQueeney, A.C. Lawson, M. Ramos, B. Martinez, T.M. Kelley, B.T. Fultz,  
*LANSCE Activity Report - Research Highlight* (2003).
7. "The nature of vibrational softening in  $\alpha$ -uranium",  
M. E. Manley, B. Fultz, R. J. McQueeney, W. L. Hults, J. L. Smith, D. J. Thoma, C. M. Brown, R. Osborn, J. L. Robertson,  
*NIST Special Publication*, 977 38-39 (2002).

Contributed Papers (continued).

6. “Phonons and Superconductivity”,  
R.J. McQueeney, T. Egami, Y. Petrov, M. Yethiraj, H. Mook, R. Osborn  
*LANSCE Activity Report – Research Highlight* (2001).
5. “Evidence for Strong Electron-lattice Coupling in  $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ ”,  
R. J. McQueeney and J. L. Sarrao,  
*High-Temperature Superconductivity*, ed. S. E. Barnes, American Institute of Physics, p. 278 (1999).
4. “Low temperature anomaly of LO phonons in  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$  and  $\text{YBa}_2\text{Cu}_3\text{O}_7$ ”,  
T. Egami, R. J. McQueeney, Y. Petrov, M. Yethiraj, G. Shirane, and Y. Endoh,  
*High-Temperature Superconductivity*, ed. S. E. Barnes, American Institute of Physics, p. 231 (1999).
3. “Role of local lattice deformation in high temperature superconductivity”,  
T. Egami, W. Dmowski, T. R. Sendyka, R. J. McQueeney, N. Seiji, H. Yamauchi,  
T. Hinatsu, and S. Uchida,  
*Anharmonic Properties of High  $T_c$  Cuprates*, World Scientific (1995).
2. “Experimental evidence of local lattice distortion in superconducting oxides”,  
T. Egami, W. Dmowski, R. J. McQueeney, T. R. Sendyka, S. Ishihara, M. Tachiki,  
H. Yamauchi, T. Hinatsu, and S. Uchida,  
*Polarons and Bipolarons in High- $T_c$  Superconductors and Related Materials Conference Proceedings* (1995).
1. “Nature of electron-lattice interaction in superconducting oxides”,  
T. Egami, W. Dmowski, T. R. Sendyka, R. J. McQueeney, N. Seiji, H. Yamauchi,  
T. Hinatsu, and S. Uchida,  
*Oxide Superconductor Physics and Nano-Engineering Conference Proc.* p.27  
(1994).