2.9 References

Allman, B.E., P.J. McMahon, J.B. Tiller, K.A. Nugent, D. Paganin, A. Barty, I. McNulty, S.P. Frigo, Y. Wang, and C.C. Retsch (2000) "Non-interferometric quantitative phase imaging with soft x-rays," J. Opt. Soc. Am. A **17**, 1732.

Balucani, U., and Zoppi (1994) *Dynamics of the Liquid State* (Clarendon Press, Oxford).

Balucani, U., et al. (1993) Phys. Rev. E **47**, 1677.

Bearden, J.A. (1965) Phys Rev. **137 B**, 455.

Bearden, J.A. (1967) Rev. Mod. Phys. **39**,78.

Bhushan, B., J.N. Israelachvili and U. Landman (1995) Nature **374**, 607.

Blume, M., and D. Gibbs (1988) Phys. Rev. B **37**, 1779.

Born,M., and E. Wolf (1980) *Principles of Optics* (Cambridge University Press, Cambridge).

Burns, C., et al. (in preparation)

Canham, L.T. (1990) *Appl. Phys. Lett*. **57**, 1046

Chetwynd, D.G., N.O. Krylova, P.J. Bryanston-Cross, and Z. Wang (1998) Nanotechnology **9**, 125.

Clark, A.E. (1979) in *Handbook of the Physics and Chemistry of Rare Earths*, K.A. Gschneidner and L. Eyring eds. (North-Holland).

Delaire, O., K.T. Erwin, A.T. Motta, R.C. Birtcher, J. Maser and B. Lai (in press) "Study of Alloying Elements in the Zr matrix of Zircaloy-4 and ZIRLO using the Advanced Photon Source at Argonne," Proc. ICONE 8, 8th International Conference on Nuclear Engineering, April 2-6, 2000, Baltimore, MD, paper 8320.

Demirel, L. and S. Granick (1996) Phys. Rev. Lett. **77**, 2261.

Ebbsjoe, I., et al. (1980) J. Phys. C: Solid St. Phys. **13**, 1865.

Eng, P., M. Newille, M.L. Rivers, S.R. Sutton (1998) “X-Ray Beam and Microtechnology Applications,” SPIE Proc. p.145.

Erwin, K.T., O. Delaire, A.T. Motta, R.C. Birtcher, Y.S. Chu, and D.C. Mancini (in press) "Study of second phase particles in Zr Alloys Using the Advanced Photon Source at Argonne," Proc. ICONE 8, 8th International Conference on Nuclear Engineering, April 2-6, 2000, Baltimore, MD, paper 8319.

Experimental Facilities Division Progress Report 1997-1998, Argonne National Laboratory Report No. ANL/APS/TB-34 (Sept. 1998).

Fezzaa, K., and W.-K. Lee (2000) in *Synchrotron Radiation Instrumentation: Eleventh US National Conference*, P. Pianetta, J. Arthur, and S. Brennan, eds. (AIP CP521) p. 571.

Frydman, E., H. Cohen, R. Maoz, and J. Sagiv (1997) Langmuir **13**, 5089.

Gao J.P. et al. (1995) Science **270**, 605.

Gao, J.P., W.D. Luidtke and U. Landman (1997) J. Phys. Chem. **B101**, 4013.

Garzarolli and H. Stehle, (1986) in: IAEA Symposium on Improvements in Water Reactor Fuel Technology and Utilization (Stockholm, IAEA SM 288/24) p. 387-407.

Graeff, W., and U. Bonse (1997) Z. Physik **B27**, 19.

Granick, S. (July 1999) *Physics Today*, p. 26, and references therein.

Hirano, K., K. Izumi, T. Ishikawa, S, Annaka, and S. Kikuta (1991) Jpn. J. Appl. Phys. **30**, L407.

Hu, M. (1999) PhD thesis, Northwestern University.

Hu, M., T.S. Toellner, P.M. Hession, J.P. Sutter, E.E. Alp (1999a) Nucl. Instrum. Methods A **428**, 551.

Hu, M., T.S. Toellner, W. Sturhahn, P.M. Hession, J.P. Sutter, E.E. Alp (1999b) Nucl. Instrum. Methods A **430**, 271.

Hunter Dunn, J., et. al. (2000) Phys. Rev. Lett. **84**, 1031.

Ishimatsu, N., H. Hashizume, S. Hamada, N. Hosoito, C.S. Nelson, C.T. Venkataraman, G. Srajer, and J.C. Lang (1999) Phys. Rev. B **60**, 9596.

Keppler, C., K. Achterhold, A. Osterman, U. van Bürck, A.I. Chapman, R. Rüffer, W. Sturhahn, E.E. Alp,. F.G. Parak (2000) Eur. Biophys. J. **29**, 146.

Keune, W., and W. Sturhahn (1999) Hyperfine Interactions **123**, 847.

Koval, S., et al. (1996) Phys. Rev. B **54**, 7151.

Lang, J.C., and G. Srajer (1995) Rev. Sci. Instrum. **66**, 1540.

Lang, J.C., G. Srajer, C. Detlefs, A.I. Goldman, H. Konig, X. Wang, B.N. Harmon, R.W. McCallum (1995) Phys. Rev. Lett. **74,** 4935.

Lang, J.C., G. Srajer, J. Wang, and P.L. Lee (1999) Rev. Sci. Instrum. **70**, 4457.

Lemaignan, C., and A.T. Motta (1994) "Zirconium in Nuclear Applications," in: *Nuclear Materials*, vol. 10B, B.R.T. Frost, ed. (New York, VCH) p. 1-52.

Levine, Z.H., A.R. Kalukin, S.P. Frigo, I. McNulty, and M. Kuhn (1999) Appl. Phys. Lett. **74**, 150.

Levine, Z.H., A.R. Kalukin, M. Kuhn, S.P. Frigo, I. McNulty, C.C. Retsch, Y. Wang, U. Arp, T. Lucatorto, B. Ravel, and C. Tarrio (2000) J. Appl. Phys. **87**, 4483.

Mao, H.K., J. Xu, V.V. Sturzkin, J. Shu, R.J. Hemley, W. Sturhahn, M.Y. Hu, E.E. Alp, L. Vocadlo, D. Alfe, G.D. Price, M. J. Gillan, M. Schwoerer-Bohning, D. Häusermann, P. Eng, G. Shen, H. Giefers, R. Lubbers, G. Wortmann (submitted to Phys. Rev. Lett.).

Margulies, L., M.J. Kramer, R.W. McCallum, S. Kycia, D.R. Haeffner, J.C. Lang, A.I. Goldman (1999) Rev. Sci. Instrum. **70**, 3554.

McNulty, I., S.P. Frigo, C.C. Retsch, Y. Wang, Y.P. Feng, Y. Qian, E. Trakhtenberg, B. Tieman, B.-C. Cha, K. Goetze, T. Mooney, and W.S. Haddad (1998) SPIE Proc. **3449**, 67.

Moldovan, N. (1999) "Deformations and stress in PMMA during hard x-ray exposure for deep lithography," SPIE Proc. **3875**, 155.

Momose, A. (1995) Nucl. Instrum. Methods **A352**, 622.

Mooney, T.M., T. Toellner, W. Sturhahn, E.E. Alp, S.D. Shastri (1994) Nucl. Instrum. Methods A **347**, 348.

Nelson, C.S. (1999) Ph.D. thesis, Northwestern University.

Nelson, C.S., G. Srajer, J.C. Lang, C.T. Venkataraman, S.K. Sinha, H. Hashizume, N. Ishimatsu, and N. Hosoito (1999) Phys. Rev. B **60**, 12234.

Osborn, R., S. Rosenkranz, D. N. Argyriou, L. Vasiliu-Doloc, J. W. Lynn, S. K. Sinha, J. F. Mitchell, K. E. Gray, S. D. Bader (1998) Phys. Rev. Lett. **81**, 3964.

Osgood III, R.M., S.K. Sinha, J.W. Freeland, Y.U. Idzerda, and S.D. Bader (1999) J. Magn. Magn. Mater. **198-199**, 698.

Paganin, D., and K.A. Nugent (1998) Phys. Rev. Lett. **80**, 2586-2589.

Parkin, S.S.P., et al. (1999) J. Appl. Lett. **85**, 5828.

Pollmann, J., G. Srajer, J. Maser, J.C. Lang, C.S. Nelson, C.T. Venkataraman, and E.D. Isaacs (2000) Rev. Sci. Instrum. **71**, 2386.

Sage, T., et al. (in preparation)

Sette, F., et al. (1995) Phys. Rev. Lett. **75**, 850.

Shu, D., T. Toellner, E.E. Alp, (submitted)

Sinn, H., et al. (1997) Phys. Rev. Lett. **78**, 1715.

Sinn, H., E.E. Alp, A. Alatas, J. Barraza, G. Bortel, E. Burkel, D. Shu, W. Sturhahn, J.P. Sutter, T.S. Toellner, (submitted).

Srajer, G., et al., to be published

Sturhahn, W., T.S. Toellner, E.E. Alp, X. Zhang, M. Ando, Y. Yoda, S. Kikuta, M. Seto, C.W. Kimball, B. Dabrowski, (1995) Phys. Rev. Lett. **74,** 3832.

Sutter, J. (2000) PhD thesis, Purdue University.

Sutter, J., et al. (in press) Phys. Rev. B.

Thompson, P.A., G.S. Grest and M.O. Robbins (1992) Phys. Rev. Lett. **68**, 3448.

Toellner, T.S., T. Mooney, S. Shastri, E.E. Alp, (1992) "High Energy Resolution, High Angular Acceptance Crystal Mono-chromator," in *Optics for High-Brightness Synchrotron Radiation Beamlines*, ed. J. Arthur, SPIE Proc. **1740**, 218.

Toellner, T.S., M.Y. Hu, W. Sturhahn, K. Quast, E.E. Alp (1997) Appl. Phys. Lett. **71**, 2112.

Toellner, T.S. (2000) Hyperfine Interact. **125**, 3-28.

van der Laan, G. (1999) Phys. Rev. Lett. **82**, 641.

van Veenendaal, M., J.B. Goedkoop, and B.T. Thole (1997) Phys. Rev. Lett. **78** 1162.

Vasiliu-Doloc, L., S. Rosenkranz, R. Osborn, S. K. Sinha, J. W. Lynn, J. Mesot, O. Seeck, G. Preosti, A. Fedro, J. F. Mitchell (1999) Phys. Rev. Lett. **83**, 4393.

Wang, Y., F. De Carlo, I. Foster, J. Insley, C. Kesselman, P. Lane, G. von Laszewski,

D. Mancini, I. McNulty, M.-H. Su, and B. Tieman (1999) SPIE Proc. **3772**, 318.

X-ray Microscopy and Spectromicroscopy (1998) J. Thieme, G. Schmahl, D. Rudolph, and E. Umbact, eds. (Springer-Verlag, Berlin Heidelberg).

Yu, C.-J., A.G. Richter, A. Datta, M.K. Durbin and P. Dutta (1999) Phys. Rev. Lett. **82**, 2326.