

Curriculum Vitae

Personal Information

Dr. rer. nat. Hendrik Ohldag
Staff Scientist, Stanford Synchrotron Radiation Laboratory, SLAC
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Education

Diplom Physiker (Dipl. Phys.), 1997
Institut für Angewandte Physik
Heinrich Heine Universität Düsseldorf, Germany
Thesis title: "Magneto- and Electron Optical Hysteresis Measurements"

Doktor der Naturwissenschaften (Dr. rer. nat.), 2002
Institut für Angewandte Physik
Heinrich Heine Universität Düsseldorf, Germany
Thesis title: "Exchange Coupling between Co or Fe and Antiferromagnetic NiO Investigated by Dichroism X-ray Absorption Spectromicroscopy"

Employment

- 6/2005 - today** Physicist at the Stanford Synchrotron Radiation Laboratory.
- 10/2002 - 5/2005** Postdoctoral Research Associate at the Stanford Synchrotron Radiation Laboratory.
- 10/1999 - 10/2002** Research Associate at the Stanford Synchrotron Radiation Laboratory.
- 10/1997 - 10/1999** Research Associate at the Institut für Angewandte Physik, Heinrich Heine Universität Düsseldorf.
- 07/1996 - 09/1997** Research Assistant at the Institut für Angewandte Physik, Heinrich Heine Universität Düsseldorf.

Visiting Positions

- 10/1999 - 5/2005** Visiting Scientist, Experimental Systems Group, Advanced Light Source Berkeley
- 07/1998 - 09/1998** Visiting Scientist, Material Science Division, Lawrence Berkeley National Laboratory

Research

- X-ray spectroscopy and microscopy of magnetic thin films and interfaces using synchrotron radiation
- Exchange coupling and interface phenomena of complex magnetic interfaces, e.g. antiferromagnetic/ferromagnetic interfaces
- Novel magnetic phenomena, like magnetic ordering in light elements, e.g. carbon
- Ordering phenomena in correlated materials

Honors

- 2006** **David A . Shirley Award** awarded by the Advanced Light Source for “Outstanding contributions in using Photoemission Electron Microscopy (PEEM) for the study of magnetic materials”
- 2002** **MRS Gold Award** awarded by the Material Research Society for the conduct of outstanding graduate research in the field of material sciences.
- 2001** **ALS Graduate Research Award** awarded by the Advanced Light Source for outstanding graduate research performed at the Advanced Light Source.

Professional Services

- 1/2008 - today** Chair of the Users’ Executive Committee at the Advanced Light Source, Lawrence Berkeley National Laboratory
- 1/2008 - today** Ex-officio member, Scientific Advisory Committee, Advanced Light Source, Lawrence Berkeley National Laboratory
- 1-2008 - today** Member, Synchrotron and Neutron Users Group
- 2008 - today** Reviewer for the Department of Energy, Office of Science, Basic Energy Science
- 2007 - today** Reviewer for the Major Research Instrumentation (MRI) Program at the National Science Foundation
- 1/2006 - today** Member of the Users’ Executive Committee at the Advanced Light Source, Lawrence Berkeley National Laboratory.
- 2006 - today** Member of the beamtime proposal review group at the Advanced Light Source
- 2001 - today** Referee activity for scientific journals like, Physical Review, including Physical Review Letters and Physical Review B, Journal of Magnetism and Magnetic Materials, Physica Status Solid Applied Physics Letters, Journal of Applied Physics, Journal of Physics, Review of Scientific Instruments, Surface Science, Journal of Vacuum Science and Technology and Journal of Thin Solid Films

Conference Organization

- 2007** Workshop on “X-ray Microscopy and Imaging”, at the 2007 SSRL Users’ Meeting, October 3rd 2007, Stanford, California USA
- 2007** Workshop on “Scanning Transmission X-ray Microscopy and Environmental Science”, July 9-10 2007, Stanford Synchrotron Radiation Laboratory, California USA
- 2006** Advanced Light Source Users Meeting 2006 - Program co-chair
- 2006** Workshop on “Advanced Magnetic Spectroscopies”, at the 2006 Advanced Light Source Users’ Meeting.
- 2005** 3rd Workshop on X-rays and Magnetism, Stateline NV, USA, April 3rd-7th 2005
- 2004** 2nd Workshop on X-rays and Magnetism, Squaw Valley CA, USA, April 11th -16th 2004
- 2003** 1st Workshop on X-rays and Magnetism, Squaw Valley CA, USA, April 14th-18th 2003

Participation in Training of Ph.D Students

1. Rajesh Dilip Kelekar, Department of Material Science, Stanford University (graduated in 2007)
2. John Paul Strachan, Department of Applied Physics, Stanford University (graduated in 2008)
3. William Frederick Schlotter, Department of Applied Physics, Stanford University (graduated in 2007)
4. David Bernstein, Department of Applied Physics, Stanford University (current)
5. Mark Burkhardt, Department of Applied Physics, Stanford University (current)

Collaborations over the past 5 years

1. Dr. Simone Anders, IBM Almaden Research Center, San Jose USA.
2. Dr. Stefan Maat, Hitachi Global Storage Technologies, San Jose USA.
3. Prof. Kannan Krishnan, University of Washington, USA.
4. Prof. David Lederman, West Virginia University, USA.
5. Dr. Alexandra Mougin, Universite de Paris Sud, France.
6. Prof. Pablo Esquinazi, University of Leipzig, Germany
7. Prof. Andreas Ney, University of Duisburg, Germany.
8. Dr. Elke Arenholz, Dr. Tolek Tylicszak, and Dr. Andreas Scholl, Advanced Light Source, Berkeley USA.
9. Prof. Yuri Suzuki, UC Berkeley, Berkeley USA.
10. Dr. Cheng-Jun Sun, National University of Singapore, Singapore.

Invited Talks at Conferences and Workshops

1. *A quick look at magnetism using time resolved soft x-ray microscopy*, Workshop on Synchrotron based picosecond x-ray science (SPX) at Argonne National Laboratory, May 2008, Argonne, IL
2. *X-rays and Magnetism - A Perfect Match*, Conference on X-ray Spectroscopy on Magnetic Solids 2008, Hamburg Germany, January 2008.
3. *Magnetic Carbon Made Visible Using X-Rays*, European Meeting on Magnetic Carbon, Madrid Spain, September 2007.
4. *X-rays and Magnetism - A Perfect Match*, 1st International Symposium on Advanced Magnetic Materials and Applications, Cheju Island, South Korea, May 2007.
5. *A Soft X-ray STXM for the study of magnetic and correlated Materials at the SSRL*, Workshop for the development of next generation STXM, Bodega Bay, USA, December 2006.
6. *X-ray Imaging of Magnetic Nanomagnets*, Annual workshop of the Center for Magnetic Nanotechnology, Stanford, CA USA, December 2006.
7. *How X-rays helped to solve the mystery of Exchange Bias*, Advanced Light Source, 2006 Users' Meeting, Berkeley, CA USA October 2006.
8. *Soft X-ray Microscopy at the SSRL*, Stanford Synchrotron Radiation Laboratory 2006 Users' Meeting, Stanford, CA USA, October 2006.
9. *XPEEM Imaging of exchange coupled Antiferromagnets*, 3rd International Workshop on Nanoscale Spectroscopy and Nanotechnology, University of Maryland, College Park, MD USA, December 2004.
10. *Exchange Bias and X-rays*, 1st International Workshop on Exchange Bias Anglet France, September 2004.
11. *Nanomagnetism and Polarized X-rays*, Workshop on Future Directions of the Advanced Photon Source, Lake Geneva, WI USA, September 2004.
12. *Imaging Compensated and Uncompensated Magnetic Order Using Polarized X-Rays*, 7th International Symposium on Synchrotron Radiation, Hiroshima Japan, March 2003.
13. *Polarized X-rays and Magnetic Interfaces*, 49th AVS International Symposium, Denver, CO USA, November 2002.
14. *Spectromicroscopy of Magnetic Interfaces using XPEEM*, 7th International Conference on X-Ray Microscopy, Grenoble France, July 2002.
15. *Interfaces and Exchange Bias - A Spectromicroscopy Study*, Workshop on prospects in magnetic oxide thin films and hetero-structures, Versailles, France, May 2002.
16. *Understanding Magnetic Coupling At Antiferromagnetic/Ferromagnetic Interfaces - A Spectromicroscopy Study* Spring Meeting of the Materials Research Society, San Francisco, CA USA, April 2001.
17. *Imaging Antiferromagnetic Domains at Surfaces and Interfaces using Dichroism XPEEM*, Inter-mag Europe 2002, Amsterdam The Netherlands, April 2002.
18. *Magnetic Coupling At Antiferromagnetic/Ferromagnetic Interfaces - A Spectromicroscopy Study*, XRMS01 Workshop, Halle Germany, December 2001.
19. *Interface magnetic structure of Co/NiO*, Highlights of young researchers, ALS Users Meeting, Berkeley, CA USA, October 2001. USA.
20. *Magnetic Coupling In Antiferromagnetic/Ferromagnetic Sandwiches - A Spectromicroscopy Study*, CRISM Review Meeting, Stanford, CA USA, February 2001.

Invited Talks at various Institutions

1. *X-rays and Magnetism - A Perfect Match*, Department of Physics, North Carolina State University, Raleigh NC, March 2008.
2. *X-rays and Magnetism - A Perfect Match*, Department of Physics, West Virginia University, Morgantown WV, May 2008.
3. *X-rays and Magnetism - A Perfect Match*, University of Duisburg-Essen, Germany, September 2007.
4. *X-rays and Magnetism - A Perfect Match*, SPRING-8 Synchrotron, Hyogo Japan, June 2007.
5. *Mikroskopie mit weicher Rntgenstrahlung Die magnetische Nadel im Heuhaufen finden*, University of Leipzig, Leipzig Germany, November 2006.
6. *Got X-rays?*, National Synchrotron Light Source, Brookhaven National Laboratory, Brookhaven NY, USA, December 2005.
7. *Got X-rays?*, Chemical and Material Sciences Seminar, Stanford Synchrotron Radiation Laboratory, Stanford USA, April 2005.
8. *Things you always wanted to do with polarized X-rays*, Condensed Matter Physics Seminar, Physics Department at the University of Texas in Austin, USA, April 2005.
9. *Things you always wanted to do with polarized X-rays*, University of Utrecht, October 2003, Utrecht, The Netherlands, October 2003.
10. *Science and Fun with Polarized X-rays*, University of Duisburg, Duisburg, Germany, October 2003.
11. *Imaging Compensated and Uncompensated Magnetic Order Using Polarized X-Rays*, National Synchrotron Radiation Research Center, Hsintchu, Taiwan, March 2003.
12. *Magnetische Grenzflaechen ins Licht gerueckt*, Seminar BESSY2 Synchrotron, Berlin Germany. January 2003.
13. *Shining Light on Magnetic Interfaces - X-Ray Photoemission Electron Spectromicroscopy*, Monthly seminar of the Santa Clara Valley IEEE Magnetics Society, Milpitas CA USA, September 2002.
14. *A Close Look At Antiferromagnetic/Ferromagnetic Interfaces - A Spectromicroscopy Study*, Swiss Light Source, Switzerland, December 2001.
15. *Imaging Coupled Antiferromagnetic/Ferromagnetic Domain Structure Using Photoemission Electron Microscopy*, Department of Material Science and Engineering, Stanford University, June 2000.

Contributed Presentations at Conferences

1. *Ferromagnetic Order in Metal Free Carbon at Room Temperature*, 2007 APS March Meeting, Denver CO, USA, March 2007.
2. *Dichroism Soft X-ray Absorption Spectromicroscopy and Antiferromagnetic Surfaces and Interfaces*, 2007 APS March Meeting, Denver CO, USA, March 2007.
3. *Ferromagnetic Order in Metal Free Carbon at Room Temperature*, 10th Joint MMM/Intermag Conference Baltimore MD, USA, January 2007.
4. *Dichroism Soft X-ray Absorption Spectromicroscopy and Antiferromagnetic Surfaces and Interfaces*, 10th Joint MMM/Intermag Conference Baltimore MD, USA, January 2007.
5. *Dichroism Soft X-ray Absorption Spectromicroscopy and Antiferromagnetic Surfaces and Interfaces*, XAFS-13 Conference, Stanford CA, USA, July 2006.

6. *Dichroism Soft X-ray Absorption Spectromicroscopy and Antiferromagnetic Surfaces and Interfaces*, SRMS-5 Conference, Chicago IL, USA, July 2006.
7. *Parallel versus Antiparallel Coupling in Exchange Biased Co/FeF₂*, MMM Conference, San Jose CA, USA, October 2005.
8. *Dichroism Soft X-ray Absorption Spectromicroscopy and Antiferromagnetic Surface and Interfaces*, X-Ray Microscopy XRM05, Himeji Japan, July 2005.
9. *Parallel Versus Antiparallel Interfacial Coupling In Exchange-biased Co/FeF₂*, American Physical Society March Meeting, Los Angeles CA, USA, March 2005
10. *Interfacial Magnetism in Co/FeF₂ Thin Films*, 9th Joint MMM/INTERMAG Conference, Anaheim CA, USA, January 2004.
11. *P-sec Magnetization Dynamics of Vortices Probed at High Spatial Resolution*, 4th International PEEM/LEEM workshop in Enschede, The Netherlands, May 2003.
12. *Unordinary X-ray Dichroism*, 4th International PEEM/LEEM workshop in Enschede, The Netherlands, May 2003.
13. *Chemical and Magnetic Characterization of Buried Antiferromagnet-Ferromagnet Interfaces Using Polarization Dependent Photoemission Electron Spectromicroscopy*, 61st Physical Electronics Conference, Taos NM, USA, June 2001.
14. *Magnetic Coupling In Antiferromagnetic/Ferromagnetic Sandwiches - A Spectromicroscopy Study*, Inaugural Spring Meeting of the California Section of the APS, Irvine CA USA, March 2001.
15. *Direct observation of parallel magnetic coupling in Co/NiO(001)*, 8th joint MMM-Intermag Conference, San Antonio TX, USA, January 2001.
16. *Investigating Exchange coupling in Co/NiO(001) using XPEEM*, 2nd PEEM/LEEM Workshop, Paris France, October 2000.
17. *Imaging antiferromagnetic domains on NiO(001) using PEEM*, Spring Meeting of the German Physics Society (DPG), Münster Germany, March 2000.
18. *Magnetic Moments of Mn in (Ga_{1-x}Mn_xAs)*, Spring Meeting of the German Physical Society, Münster Germany, March 2000.
19. *Magnetic Moments of Mn in (Ga_{1-x}Mn_xAs)*, 44th Annual Conference on Magnetism and Magnetic Materials, San Jose CA, USA August 1999.
20. *Imaging magnetic domains on microstructured Fe and Co stripes using PEEM*, Spring Meeting of the German Physical Society, Münster Germany, March 1999.
21. *Element specific investigation of magnetic domains on Fe and Fe/Co thin film systems using Scanning Transmission X-Ray Microscope*, Spring Meeting of the German Physical Society, Münster Germany, March 1999.

Publication List

The number of citations in peer reviewed journals of each article is given in parenthesis. Total number of citations is 760 as of September 2008

Articles in peer reviewed journals as a first author

1. *Electron Ferromagnetism in Metal-Free Carbon Probed by Soft X-Ray Dichroism* (24), H. Ohldag, T. Tyliczszak, R. Höhne, D. Spemann, P. Esquinazi, M. Ungureanu and T. Butz, Physical Review Letters vol. 98, p. 187204 (2007).
2. *Parallel versus Antiparallel Interfacial Coupling in Exchange Biased Co/FeF₂*, (14) H. Ohldag, H. Shi, E. Arenholz, J. Stöhr and D. Lederman, Physical Review Letters vol. 96, p. 027203 (2006).
3. *Correlation between exchange bias and pinned interfacial spins* (119), H. Ohldag, A. Scholl, F. Nolting, E. Arenholz, S. Maat, A.T. Young, M. Carey, J Stöhr, Physical Review Letters vol.91, p. 017203 (2003).
4. *Observation of In-Plane Magnetization Reversal Using Polarization Dependent Magneto-Optical Kerr Effect* (8), H. Ohldag, N.B. Weber, F.U. Hillebrecht and E. Kisker, Journal of Applied Physics vol. 91, p. 2228 (2001).
5. *Spectroscopic Identification and Direct Imaging of Interfacial Magnetic Spins* (87), H. Ohldag, T.J. Regan, J. Stöhr, A. Scholl, F. Nolting, J. Lüning, C. Stamm, S. Anders and R.L. White, Physical Review Letters vol. 87, 2001, p. 7201.
6. *Surface antiferromagnetism of NiO studied by photoemission microscopy* (0), H. Ohldag, N.B. Weber, C. Bethke and F.U. Hillebrecht, Journal of Electron Spectroscopy vol. 114-116, p. 765 (2001).
7. *Spin Reorientation at the Antiferromagnetic NiO(001) Surface in Response to an Adjacent Ferromagnet* (115), H. Ohldag, A. Scholl, F. Nolting, S. Anders, F.U. Hillebrecht and J. Stöhr, Physical Review Letters vol. 86, p. 2878 (2001).
8. *Magnetic moment of Mn in the ferromagnetic semiconductor (Ga_{0.98}Mn_{0.02})As* (64), H. Ohldag, V. Solinus, F.U. Hillebrecht, J.B. Goedkoop, M. Finazzi, F. Matsukura, H. Ohno, Applied Physics Letters vol. 76, p.2928 (2000).

Articles in peer reviewed journals as an author with significant contributions

1. *Insulating behavior of magnetic spots in proton-bombarded graphite* (0), K. Schindler, N. Garcia, P. Esquinazi and H. Ohldag, Physical Review B vol. 78, p. 045433 (2008).
2. *X-ray Magnetic Circular Dichroism of Heusler Alloy Co₂Cr_{1-x}Fe_xAl* (3), R. D. Kelekar, H. Ohldag and B.M. Clemens, Physical Review B vol. 75, p. 014429 (2007).
3. *Mn L₃₂ X-ray Absorption and Magnetic Circular Dichroism in Ferromagnetic Ga_{1-x}Mn_xP* (4), P. R. Stone, M. A. Scarpulla, R. Farshchi, I. D. Sharp, E. E. Haller, O. D. Dubon, K. M. Yu, J. W. Beeman, E. Arenholz, J. D. Denlinger and H. Ohldag, Applied Physics Letters vol. 89, p. 12504 (2006).
4. *Direct Imaging of Asymmetric Magnetization Reversal in Exchange-Biased Fe/MnPd Bilayers by X-Ray Photoemission Electron Microscopy* (18), P. Blomqvist, K. Krishnan and H. Ohldag, Physical Review Letters vol. 90, p. 107203 (2005).
5. *Magnetostrictive domain walls in antiferromagnetic NiO* (13), N.B. Weber, H. Ohldag, H. Gomonaj, F.U. Hillebrecht, Physical Review Letters vol.91, p.237205 (2003).

6. *Measurement of local magnetic fields in photoelectron emission microscopy by restriction of the electron beam* (2), S.A Nepijko, N.N. Sedov, H. Ohldag and E. Kisker, Rev. Sci. Inst. 73(3), pp 1224 (2002).
7. *Chemical Effects at Metal/Oxide Interfaces Studied By X-ray Absorption Spectroscopy* (111), T.J. Regan, H. Ohldag, C. Stamm, F. Nolting, J. Lning, J. Stöhr and R.L White, Phys. Rev. B. 64(21), 2001, pp 4422.
8. *Magnetic Moments at the Surface of Antiferromagnetic NiO(100)* (57), F. U. Hillebrecht, H. Ohldag, N.B. Weber, C. Bethke, U. Mick, M. Weiss and J. Bahrtdt, Phys. Rev Lett. 86(15), 2001, pp. 3419-3422.
9. *Sigmalike phase and nanoscale segregation in polycrystalline Fe_xCr_{1-x} films: an element-resolved magnetic and structural study* (20), J.B. Kortright, S. Kim, and H. Ohldag, Phys. Rev. B 61(1), 2000, pp. 64-67.

Articles in peer reviewed journals as a contributing author

1. *Observation and resonant x-ray optical interpretation of multi-atom resonant photoemission effects in O 1s emission from NiO.* (1), N. Mannella, S.-H. Yang, B. S. Mun, F. J. Garcia de Abajo, A. W. Kay, B. C. Sell, M. Watanabe, H. Ohldag, E. Arenholz, A. T. Young, Z. Hussain, M. A. Van Hove and C. S. Fadley, Phys. Rev. B, vol. 74, no 16 ,p 165106-1-11 (2006).
2. *Creation of an antiferromagnetic exchange spring* (26), A. Scholl, M. Liberati, E. Arenholz, H. Ohldag, J. Stöhr, Physical Review Letters vol. 92, p.247201 (2004).
3. *Domain-size-dependent exchange bias in Co/LaFeO₃* (11), A. Scholl, F. Nolting, J.W. Seo, H. Ohldag, J Stöhr, S. Raoux, J.P. Locquet, J. Fompeyrine, Appl. Phys. Lett., vol.85, no.18, p.4085-7 (2004).
4. *Determination of the antiferromagnetic spin axis in epitaxial LaFeO₃ films by x-ray magnetic linear dichroism spectroscopy* (11), J. Lünig, F. Nolting, A. Scholl, H. Ohldag, J.W. Seo, J. Fompeyrine, J.P. Locquet, J. Stöhr, Phys. Rev B, vol.67, no.21, p.214433 (2003).
5. *Transverse magneto-optical Kerr effect of Fe at the Fe 3p threshold* (9), M. Pretorius, J. Friedrich, A. Ranck, M. Schroeder, J. Voss, V. Wedemeier, D. Spanke, D. Knabben, I. Rozhko, H. Ohldag, F.U. Hillebrecht and E. Kisker, Phys.Rev B 55(21), 1997, pp.14133-5.

Review articles in scholarly and scientific books and journals

1. *Micromagnetic Structure*, H. Ohldag (invited) in preparation for *Magnetic Properties of Antiferromagnetic Oxide Materials*, edited by L. Duo, M. Finazzi and A. Ciccacci, WILEY-VCH
2. *X-rays and Magnetism.* H. Ohldag (invited) in preparation for Journal of Physics - Applied Physics, Fall/Winter 2008.
3. *Magnetic Structure and Coupling at Ferromagnet-Antiferromagnet Interfaces: Studies with Polarization Dependent PEEM*, A. Scholl, H. Ohldag, F. Nolting, S. Anders, and J. Sthr in *Magnetic Microscopies of Nanostructures* edited by H. Hopster, H P Oepen, Springer (2005).
4. *X-Ray photoemission electron microscopy, a tool for the investigation of complex magnetic structures*(26), A. Scholl, H. Ohldag, F. Nolting, J. Stöhr and H.A. Padmore, Rev. Sci. Inst. 73(3), pp. 1362 (2002).
5. *Imaging of Antiferromagnetic Domains by Linear Magnetic Dichroism in Photoemission Microscopy of NiO(100)* (0), H. Ohldag, N.B. Weber, C. Bethke, U. Mick, F. U. Hillebrecht, M Weiss and J. Bahrtdt Synchrotron Radiation News 13(6), 2000, pp 25-32.

Articles in Conference Proceedings

1. *Spin reorientation transitions in perpendicularly exchange-coupled thin films studied using element specific imaging* (0), Y. S. Chun, H. Ohldag and K. M. Krishnan, IEEE Transactions on Magnetics; June 2007; vol.43, no.6, p.3004-6.
2. *Exploring the microscopic origin of exchange bias with photoelectron emission microscopy* (7), A. Scholl, F. Nolting, J. Stöhr, T.J. Reganm J. Lüning, J.W. Seo, J.P. Loquet, J. Fompeyrine, S. Anders, H. Ohldag and H.A. Padmore. Proceedings of the Eighth Joint Magnetism and Magnetic Materials Intermag Conference, 7-11 Jan. 2001, San Antonio, TX, USA, Jour. Appl. Phys. 89(11), pp 7266 (2001).
3. *Studies of the magnetic structure at the ferromagnet-antiferromagnet interface* (0), A. Scholl, F. Nolting, J. Stöhr, J. Lüning, J.W. Seo, J.P. Locquet, J. Fompeyrine, S. Anders, H. Ohldag and H.A. Padmore. Proceedings of the Eleventh International Conference on X-Ray Absorption Fine Structure. XAFS XI, 26-31 July 2000, Aka, Japan Journ. Synch. Rad., 8(2), 2001, pp.101.
4. *Magnetization imaging using scanning transmission x-ray microscopy* (n/a), J.B. Kortright, S. Kim, H. Ohldag, G. Meigs, and T. Warwick, X-ray Microscopy: Proceedings of 6th International Conference of the X-ray Microscopy August 2-6,1999, Berkeley CA, USA, AIP Conference Proceedings Vol. 507, p 49-55 (2000).
5. *Element-specific Magnetic Moments in Invar Alloys from Circular Dichroism* (n/a), H. Ohldag, D. Knabben, C. Bethke, D. Spanke, V. Solinus, F.U. Hillebrecht, H.A. Dürr and G. van der Laan. Activity Report 1998, Daresbury Synchrotron Radiation Laboratory, p. 150 (1998).

Articles written by third parties

1. "First Proof of Ferromagnetic Carbon", ALS science highlight July 2007, http://www-als.lbl.gov/als/science/sci_archive/147carbon.html.
2. "Elemental Magnetism", INTUTE June 8th 2007, http://www.intute.ac.uk/sciences/spotlight/issue49/Elemental_magnetism.html.
3. "Carbon Joins the Magnetic Club", PULSE magazine US Department of Energy, June 4th 2007, http://www.ornl.gov/info/news/pulse/pulse_v236_07.htm.
4. "Carbon's mysterious magnetism", Science News Magazine June 2nd 2007, featured in the on-line version of the Encyclopedia Britannica, see <http://www.britannica.com/eb/topic-357206/magnetic-moment>.
5. "Carbon Joins the Magnetic Club", SSRL Science highlight May 29th 2007, http://www-ssrl.slac.stanford.edu/research/highlights_archive/c_ferromagnetism.html.
6. "Magnetic properties of Carbon Identified", The Stanford Daily May 22nd 2007, <http://daily.stanford.edu/article/2007/5/22/magneticPropertiesOfCarbonIdentified>.
7. "Carbon Joins the Magnetic Club - Element holds promise for information technology", Stanford Report May 16th 2007, <http://news-service.stanford.edu/news/2007/may16/magcarb-051607.html>.
8. "Carbon Joins the Magnetic Club", SLAC press release May 11th 2007, <http://home.slac.stanford.edu/pressreleases/2007/20070511.htm>.
9. "Parallel and Antiparallel Interfacial Coupling in AF-FM bilayers", ALS Activity Report 2006.
10. "Parallel and Antiparallel Interfacial Coupling in AF-FM bilayers", ALS science highlight August 2006, http://www-als.lbl.gov/als/science/sci_archive/131exchange_bias.html.

11. "Direct Imaging of asymmetric magnetization reversal", ALS science highlight September 2005, http://www-als.lbl.gov/als/science/sci_archive/107exchange_bias.html.
12. "Creation of an Antiferromagnetic Exchange Spring", ALS Activity Report 2004.
13. "Creation of an Antiferromagnetic Exchange Spring", ALS science highlight December 2004, http://www-als.lbl.gov/als/science/sci_archive/91antiferromagnetic.html.
14. "Pinning Down Exchange Bias", ALS science highlight April 2004.
15. "Pinning Down Exchange Bias", ALS Activity Report 2003, http://www-als.lbl.gov/als/science/sci_archive/78exchange_bias.html.
16. "Antiferromagnetic Domain Walls in Nickel Oxide", ALS Activity Report 2003.
17. "Antiferromagnetic Spin Reorientation at the NiO Interface in Response to an Adjacent Co Layer", ALS Activity Report 2001.
18. "Antiferromagnetic Spin Reorientation", ALS science highlight June 2001, http://www-als.lbl.gov/als/science/sci_archive/peem_spin.html.
19. "Solving a Forefront Problem in Materials Science", SSRL science highlight 12/2002.
20. "Shining Light on Interfaces" ALS Activity Report 2001.
21. "An der Grenze gerüttelt" Wissenschaft Online, December 12th 2001, <http://www.wissenschaft-online.de/artikel/584469&druck=1>.
22. "Uncovering a New Layer" Physical Review Focus December 5th 2001, <http://focus.aps.org/story/v8/st31>.
23. "Uncovering a New Layer" Materials Today February 2002 (SCAN).