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Conferences Organized

1. Co-chairman of Workshop on "New Frontiers in VUV Science with Synchrotron Radiation," Brookhaven NSLS Users' Meeting, May 1989.
2. Chairman of NSLS Workshop on "Sources and Applications of High Intensity UV-VUV Light," BNL, January 1990.
3. Chairman of 1990 NSLS Annual Users Meeting, May 1990.
4. Program Committee MMM Conference, Atlanta, Georgia, 1996
5. Vice-Chairman, Gordon Conference on Electron Spectroscopy, New Hampshire, July 1998.
6. Chairman of NSLS Workshop on "Complex Materials," BNL, NSLS Users' Meeting, May 1999.
7. Chairman of Workshop on Nanoscience and Technology, BNL, December 2000
8. International Program Committee, 8th International Conference on Electron Spectroscopy and Structure, Berkeley, August 2000.
9. Co-Chairman of Workshop on Applications of Synchrotron Radiation in Nanoscience and Technology, NSLS Annual Users Meeting, May 2001
10. Co-Chairman International Workshop on Low Energy Electrodynamics in Solids, Montauk October 2002
11. International Program Committee, 9th International Conference on Electron Spectroscopy and Structure, Uppsala University, July 2003
12. Co-Chairman of Workshop on Nanoscale Correlated Systems, NSLS Annual Users Meeting, May 2005.
13. Program Committee, LEES06 Conference Estonia, July 2006
14. International Advisory Board, Spectroscopies in Novel Superconductors, Sendai, Japan, August 2007
15. Advisory Board, LEES08, Vancouver, July 2008
16. International Advisory Board, ECOSS25, Liverpool, July 2008. Co-Chair of Symposium on "Electronic structure and quantum effects of two-dimensional systems"

Invited Talks

1. "Angle-resolved Photoemission Studies of Adsorbate Core and Valence Levels," Northwest Divisional Meeting of the American Chemical Society, Bozeman, Montana, June 17-19, 1982.
2. "Inverse Photoemission Studies of Metal Surfaces," March Meeting of the American Physical Society, Los Angeles, California, 1983.
3. "Inverse Photoemission from Clean and Adsorbate Covered Metal Surfaces," Gordon Research Conference on Electron Spectroscopy, New Hampshire, 1986.
4. "Inverse Photoemission Studies of the Unoccupied Levels in Molecular Adsorbates," Surface Canada '86, London, Ontario, 1986.
5. "Interface States, Surface States and Image States," Second Nordic Conference on Surface Science, Linkoping, Sweden, 1987.
6. "Spin Polarized Electron Spectroscopies," Workshop on Unoccupied States, ICTP, Trieste, Italy, 1988.
7. "Spin Polarized Photoemission Studies of Adsorbates on Fe(001)," Gordon Research Conference on Electron Spectroscopy, New Hampshire, 1988.
8. "Spin Polarized Photoemission Studies of Adsorbate Systems," March Meeting of the APS, St. Louis, 1989.
9. "Magnetism and Chemisorption," 4th International Conference on Electron Spectroscopy," Hawaii, 1989.
10. "Spin Polarized Photoemission Studies of Surface Magnetism," International Workshop on Monolayer Magnetism, West Virginia, 1989.
11. "Magnetic Studies of Oxygen Interacting with an Fe(001) Surface," Workshop on the use of Synchrotron Radiation in the Study of Magnetism," Brookhaven, 1990.
12. "Surface and Thin Film Magnetism," Symposium on Surface Magnetism, IBM Amalden, San Jose, 1991.
13. "Spin Polarized Studies of Surface and Thin Film Magnetism," MRS Spring Meeting, Anaheim, 1991.
14. "Absorption on Ferromagnetic Surfaces," Workshop on Surface Science, Brookhaven, 1991.
15. "Spin Polarized Photoemission," Synchrotron Radiation Instrumentation Conference, Louisiana State University, 1991.
16. "The Magnetism of Surfaces and Thin Films," Brookhaven Lecture Series, November 1991.

17. "Spin Polarized Photoemission Studies of Surface and Interfacial Magnetism," NSLS Users Meeting, 1992.
18. "Thin Magnetic Films and Interfacial Magnetism," DOE Basic Energy Sciences Meeting, Oak Ridge, 1992.
19. "Spin Polarized Photoemission Studies of Interfaces and Thin Films," Gordon Research Conference on Electron Spectroscopy, New Hampshire, 1992.
20. "Spin Polarized Photoemission Studies of Interfaces and Thin Films," International VUV 10 Conf., Paris, 1992.
21. "Spin Polarized Photoemission Studies of Quantum Well States in Thin Films," MRS Spring Meeting, 1993.
22. "Quantum Well States in Thin Films," VUV Workshop, NSLS Users Meeting, 1993.
23. "Spin Polarized Photoemission," NATO Summer School, Erice, Sicily, 1994.
24. "Spin Polarized Photoemission Studies of Magnetic Quantum Well States," 14th ICMFS/□-MRS, Duesseldorf, 1994.
25. "Spin Polarized Photoemission Studies of Interface and Quantum Well States in Thin Films," WE-Heraeus Seminar, Bad Honnef, 1994.
26. "Spin Polarized Quantum Wells," APS March Meeting, 1995.
27. "Magnetic Quantum Wells," S. Korean Vacuum Congress, Seoul, Korea, March 1996.
28. "Magnetic Quantum Wells," Gordon Research Conference on Electron Spectroscopy, New Hampshire, July 1996.
29. "Spin-resolved Photoemission," Synchrotron Radiation Research Center, Taiwan, R.O.C., November 1997.
30. "Spin-resolved Photoemission," 6th ISSP International Symposium (ISSP-6) on Frontiers in Synchrotron Radiation Spectroscopy, Tokyo, Japan, November 1997.
31. "High resolution photoemission studies of low dimensional oxide," Invited Speaker, NSLS Annual Users Meeting, BNL, May 19, 1998.
32. "High energy and momentum resolved photoemission studies of High T_c superconducting materials," International Workshop on Inelastic X-ray Scattering, Montauk, New York, October 21, 1998.
33. "High-resolution electron spectroscopy using an imaging analyzer," 11th U.S. National Synchrotron Radiation Instrumentation Conference (SRI'99), Stanford Linear Accelerator Center (SLAC), Stanford, California, October 14, 1999.
34. "Evidence for quantum critical behavior in a photoemission study of optimally doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$," International Workshop on Concepts in Electron Correlation, Hvar, Croatia, September 25-30, 1999.

35. "Nodal quasiparticles or no quasiparticles," Canadian Institute for Advanced Research, Toronto, Canada, October 1999.
36. "Fermi liquids or non-Fermi liquids: what can photoemission tell us," Gordon Research Conference on Superconductivity, Ventura, California, February 13-18, 2000.
37. "High resolution photoemission studies of high T_c superconductivity," European Physical Society CMD18, Montreux, Switzerland, March 13-17, 2000.
38. "High resolution photoemission studies of optimally doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$," American Physical Society March Meeting, Minneapolis, Minnesota, March 20-24, 2000.
39. "High resolution photoemission studies of high-temperature superconductivity," Cambridge, England, June 2000.
40. "High resolution photoemission studies of high-temperature superconductivity," Trieste, Italy, July 2000.
41. "Photoemission studies of self-energy effects in strongly correlated materials," 8th International Conference on Electron Spectroscopy and Structure, Lawrence Berkeley Laboratory, Berkeley, California, August 2000.
42. "Photoemission studies of self-energy effects in strongly correlated materials," Conference on High Temperature Conductivity, University of California, Santa Barbara, August 2000.
43. "Photoemission studies of self-energy effects in strongly correlated materials," 3rd International Conference on Stripes and High T_c Superconductivity, Universita di Roma, Roma, Italy, September 2000.
44. "High resolution photoemission studies of self-energy effects in high T_c superconductors," New³SC-3, Honolulu, Hawaii, January 2001.
45. "High resolution photoemission studies of self-energy effects in high T_c superconductors," 2001 Winter Conference on Condensed Matter Physics, "High T_c Superconductivity," Aspen, Colorado, January 2001.
46. "Self Energy Effects in high T_c superconductors and other materials," SNS 2001 Conference, Chicago, Illinois, May 2001.
47. "Self energy effects of high T_c superconductors and other materials," The International Conference on Vacuum Ultraviolet Radiation Physics (VUV-XIII), Trieste, Italy, July 2001.
48. "High resolution photoemission studies of self energy effects in high T_c superconductors," Gordon Research Conference on Superconductivity, Oxford, England, September 2001.
49. "Spectroscopy of complex materials," Advanced Light Source Workshop on Strongly Correlated Materials, Berkeley, California, October 2001.
50. "Shining a light on the world with synchrotron radiation," Plenary talk, IEEE Meeting, San Diego, California, November 2001
51. "Dispersion anomalies in photoemission and the neutron resonance mode," March Meeting

Indianapolis, 2002.

52. "Quasiparticles, dimensionality and high T_c superconductivity," Workshop on Emergent Materials and Highly Correlated Electrons, Trieste, Italy, August 2002.
53. "Photoemission and the influence of collective excitations," EPENS '02, Montauk, New York, September 2002.
54. "Photoemission and the influence of collective excitations," NATO Advanced Research Workshop on Concepts in Electron Correlation, Hvar, Croatia, September 2002.
55. "Photoemission and the influence of collective excitations," Workshop on Electron-Phonon Coupling, SRC Users' Meeting, Wisconsin, October 2002.
56. "Quasiparticle, dimensionality, coherence and high T_c superconductors," Gordon Conference on High T_c Superconductivity, Ventura, California, January 2003.
57. "Photoemission as a probe of strongly correlated systems, High T_c , etc.," ICAM Workshop on Quantum Criticality, Columbia University, March 2003.
58. "Quasiparticles, Coherence and High T_c Superconductors," The 7th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Conductors, Rio De Janeiro, Brazil, May 2003.
59. "High Resolution ARPES studies of quasiparticle lifetimes in strongly correlated systems," Spectroscopies in Novel Superconductors, Sitges, Spain, July, 2004
60. "High Resolution Photoemission as a Probe of the Collective Excitations in Condensed Matter Systems," Conference on Low Energy Electrodynamics in Solids, Plenary Talk, Kloster Banz, Germany July 2004
61. "High Resolution Photoemission as a Probe of Collective Modes," Phoenix Park, Korea, February 2005
62. "Photoemission studies of Strongly Correlated Systems, Part I," Phoenix Park, Korea, February 2005
63. "Photoemission studies of Strongly Correlated Systems, Part II," Phoenix Park, Korea, February 2005
64. "High Resolution Photoemission Studies of Strongly Correlated Systems," Dresden, April 2005
65. "Photoemission Studies of Highly Correlated Electron Systems," ECOSS Meeting, Berlin, Germany, September 2005.
66. "High Resolution Photoemission Studies of Strongly Correlated Systems," Hvar, Croatia, October 2005.
67. "One Hundred Years of Photoemission": From Einstein to the quantum World," Brookhaven Lecture Series, November 2005.
68. "A Century of Photoemission: From Einstein to the Modern Quantum World," Public Lecture, World's of Physics, Stony Brook, March 2006

69. "High Resolution Photoemission Studies of Strongly Correlated Systems," LEES06 Conference, Tallinn, Estonia July 2006.
70. "An Early History of the Photon and Photoemission," After Conference Dinner presentation, LEES06 Conference, Tallinn, Estonia July 2006.
71. "Alan Wretch, Zangers and Screwers: Learning the Trade with Bruce ," Talk presented in Neville Smith Memorial Session, ALS Users Meeting October 2006.
72. "Present and Future Photoemission Technologies," Workshop on Advanced Techniques in Angle-Resolved Photoemission, ALS Users Meeting October 2006.
73. "New Developments in High Resolution Photoemission Studies of High Tc Superconductivity --The Mass Renormalization Problem," VUVXV Conference Berlin August 2007.
74. "Particle-Hole Asymmetry in the Pseudogap Phase of the High Tc Superconductors," Montauk Conference on Strong Fluctuations in Low Dimensional Systems, September 2008.
75. "Particle-Hole Asymmetry in the Pseudogap Phase of the High Tc Superconductors," Hvar Conference on Concepts in Electron Correlation, September 2008.
76. "Particle-Hole Asymmetry in the Pseudogap Phase of the High Tc Superconductors," Workshop on Cuprate Fermiology, University of Maryland, November 2008.
77. "Fermi Arcs or Fermi Pockets," APS March Meeting, Pittsburgh, Pennsylvania, 2009.
78. "Fermi Arcs, Fermi Pockets and Pre-formed Pairs," Gordon Research Conference, Hong Kong, June 2009.
79. "Fermi Arcs, Fermi Pockets and Pre-formed Pairs," CORPES09 Workshop, Paris, France, July 2009.

Departmental Colloquia

"Inverse Photoemission Studies of Metal Surfaces," Physics Dept., Arizona State University, Phoenix, Arizona, Dec. 1983.

"Inverse Photoemission Studies of Metal Surfaces," Physics Dept., Stony Brook University, NY, April. 1984.

"Inverse Photoemission Studies," Physics Dept., Liverpool University, England, Jan. 1985.

"Spin Polarized Photoemission Studies of Surfaces," Physics Dept., BNL, Sept. 1990.

"Spin Polarized Photoemission Studies of Surfaces," Physics Dept., Villanova University, Nov. 1990.

"Spin Polarized Photoemission Studies of Surfaces and Thin Films," Physics Dept., Rhode Island University, Dec. 1990.

"Thin Film and Interfacial Magnetism," Max Planck-Institut Fur Mikrostrukturphysik, Halle/Saale, Germany, Nov 1992.

"Thin Film and Interfacial Magnetism," Institute Fur Festkorperforschung, KFA, Julich, Germany, Nov 1992.

"Magnetic Nanostructures," Physics Dept., City College, New York, Nov 1993.

"Magnetic Nanostructures," Physics Dept., New York University, New York, Feb 1994.

"Magnetic Quantum Wells," University of Nebraska, Lincoln, Nebraska (Colloquium), October 1995.

"Photoemission and Ferromagnetism," Physics Dept., Beijing University, February 1996.

"Magnetic Quantum Wells," Physics Dept., Beijing University, February 1996.

"Spin Polarized Photoemission and Electron Spectroscopy at the NSLS," Institute of High Energy Physics, Chinese Academy of Science, Beijing, March 1996.

"High T_c Superconductivity Quasiparticles, Spinons, Holons, or What?," Physics Dept., BNL, Nov. 2000.

"Shining a light on high T_c superconductivity," Materials Science Dept., SUNY-Stony Brook, October 31, 2001.

"Experimental Studies of the Elementary Excitations in Strongly Correlated Materials," Physics Department, Boston College, February 19, 2004.

"Experimental Studies of the Elementary Excitations in Strongly Correlated Materials," University of Wisconsin, Madison, Wisconsin, March 5, 2004.

"Experimental Studies of the Elementary Excitations in Strongly Correlated Materials," City College, New York, Sept. 2004

"One Hundred Years of Photoemission: From Einstein to the Modern Quantum World," Physics Department, University of Stony Brook, November 2005.

"A Century of Photoemission: From Einstein to the Modern Quantum World," Physics Department, City College, New York, Apr. 2006

"Einstein, Millikan, Thomson and the Birth of the Photon," Physics Department, UCSD, April 2007

Publications

1. "A Helium Metastable Source for Surface Spectroscopy," P. D. Johnson and T. A. Delchar, *J. Phys. E*, Vol. 10, 428 (1977).
2. "Electron Ejection by Helium Metastable Atoms Incident on the Clean and Chalcogen Covered Ni(100) Surface," P. D. Johnson and T. A. Delchar, *Surf. Sci.* 77, 400 (1978).
3. "The Interaction of Helium Metastable Atoms with a Clean and CO Covered Polycrystalline Tungsten Surface," P. D. Johnson and T. A. Delchar, *Surf. Sci.* 82, 237(1979).
4. "Photon and Electron-stimulated Desorption from a Metal Surface," D. P. Woodruff, M. M. Traum, H. H. Farrell, N. V. Smith, P. D. Johnson, D. A. King, R. L. Benbow, and Z. Hurych, *Phys. Rev. B* 21, 5642 (1980).
5. "Crystallographic Incident Beam Effects in Quantitative Auger Electron Spectroscopy," A. F. Armitage, D. P. Woodruff, and P. D. Johnson, *Surf. Sci.* 100, L483 (1980).
6. "Adsorption Studies Using Auger Electron Spectroscopy from Cylindrical Single Crystals," A. F. Armitage, D. P. Woodruff, and P. D. Johnson, *ECOSS 3 Conference Proceedings* (1980).
7. "Photoelectron Diffraction Studies of Chemisorbed Overlayers," P. D. Johnson, D.P. Woodruff, H. H. Farrell, M. M. Traum, and N. V. Smith, *ECOSS 3 Conference Proceedings* (1980).
8. "Structural sensitivity of Photoelectron Diffraction Azimuthal Patterns," B. W. Holland, M. S. Woolfson, D. P. Woodruff, P. D. Johnson, D. Norman, H. H. Farrell, M. M. Traum, and N. V. Smith, *Solid State Comm.* 35, 225 (1980).
9. "Photoelectron Diffraction Study of I Chemisorbed on Ag(111)," H. H. Farrell, M. M. Traum, N. V. Smith, W. A. Royer, D. P. Woodruff, and P. D. Johnson, *Surf. Sci.* 102, 527 (1981).
10. "Photon and Electron-stimulated Desorption of Adsorbates from W(110),"D. P. Woodruff, P. D. Johnson, M. M. Traum, H. H. Farrell, N. V. Smith, R. L. Benbow, and Z. Hurych, *Surf. Sci.* 104, 527 (1981).
11. "The Interaction of Metastable Helium Atoms with Metal Surfaces," D.J. Titley, T.A. Delchar, and P.D. Johnson, *Surf. Sci.* 102, L59 (1981).
12. "Atomic Exchange Potentials and Angle Resolved Photoemission," M. S. Woolfson, P.D. Johnson, D. P. Woodruff, and B. W. Holland, *Vacuum* 31, 411 (1981).
13. "Inverse Photoemission Observation of an Unoccupied Surface State on Pd(111), P.D. Johnson and N. V. Smith, *Phys. Rev. Lett.* 49, 290 (1982)

14. "k-resolved Inverse Photoelectron Spectroscopy and its Applications to Cu(100), Ni(001), and Ni(110)," D. P. Woodruff, N. V. Smith, P. D. Johnson and W. A. Royer, *Phys. Rev.* 26, 2943 (1982).
15. "Spin-polarized Inverse Photoelectron Spectroscopy of Solid Surfaces: Ni(100)," J. Unguris, A. Seiler, R. J. Celotta, D. T. Pierce, P. D. Johnson, and N. V. Smith, *Phys. Rev. Lett.* 49, 1047 (1982).
16. "Photoelectron Diffraction from Te on Ni(100) and Cu(100)," P. D. Johnson, and D. P. Woodruff, H. H. Farrell, N. V. Smith, M. M. Traum, *Surf. Sci.* 129, 366 (1983).
17. "Production of Circularly Polarized Light from Synchrotron Radiation in the Vacuum Ultraviolet Region," P. D. Johnson and N. V. Smith, *Nucl. Instr. and Methods* 214, 505 (1983).
18. "Slit-width Calibration with a Radioactive Photon Source," P. D. Johnson, and M. J. Perlman, *Nucl. Instr. and Methods* 206, 593 (1983).
19. "Inverse Photoemission," D. P. Woodruff, P. D. Johnson, and N. V. Smith, *J. Vac. Sci. Tech.* A1(2), 1104 (1983).
20. "Image Potential States and Energy Loss Satellites in Inverse Photoemission," P. D. Johnson and N. V. Smith, *Phys. Rev. B* 27, 2527 (1983).
21. "Carbon KVV Auger Spectroscopy using a Plane Grating Monochromator at the National Synchrotron Light Source," P. D. Johnson, H. H. Farrell, and N. V. Smith, *Vacuum* 33, 775 (1983).
22. "Response to Comment on k-Resolved Inverse Photoelectron Spectroscopy and its Applications to Cu(001), Ni(001) and Ni(110)," D.P. Woodruff, N.V. Smith, P.D. Johnson, and W.A. Royer, *Phys. Rev. B* 30, 1047 (1984).
23. "A Normal-Incidence Monochromator Branch Line on the FEL-Undulator for Experimental Studies in the 5-30 eV Region," P. D. Johnson, N. G. Stoffel, R. Klaffky, and N. V. Smith, *Nucl. Inst. & Meth.* 222, 66 (1984).
24. "Photoemission Spectra and Band Structure of d-band Metals. XI. Inverse Photoemission from Pd(111)," D. A. Wesner, P. D. Johnson, and N. V. Smith, *Phys. Rev. B* 30, 503 (1984).
25. "Role of Multiple Scattering within Inverse-Photoemission Studies of Unoccupied Molecular Adsorbate Levels," P. D. Johnson, D. A. Wesner, J. W. Davenport, and N. V. Smith, *Phys. Rev. B* 30, 4860 (1984).
26. "Photon Energy Dependent Branching Ratios of the Inner Valence Satellites in the Photoemission of Solid Ethylene," V. Murgai, S. L. Hulbert, P. D. Johnson, M. Strongin, and W. Eberhardt, *Chem. Phys. Lett.* 111, 157 (1984).
27. "Undulator Based Beamline Studies on U5," L. McDonnell, P. D. Johnson, R. W. Klaffky, and N. V. Smith, *NSLS Annual Report 1985*, eds., R. Klaffky, and W. Thomlinson, BNL Report Number 51840, pg. 85 (1984).

28. "A Low-Energy High-Brightness Electron Gun for Inverse Photoemission," N. G. Stoffel, and P. D. Johnson, Nucl. Inst. & Meth. A 234, 230 (1985).
29. "Photoemission Studies of Carbon Monoxide and Tantalum-supported Palladium Thin Films," M. W. Ruckman, P. D. Johnson, and Myron Strongin, Phys. Rev. B 31, 3405 (1985).
30. "Unoccupied Surface Resonance on Cu(100) and the Effect of Vacuum-level Pinning," D.P. Woodruff, S. L. Hulbert, P. D. Johnson, and N. V. Smith, Phys. Rev. B 31, 4046 (1985).
31. "Crystal-Induced and Image Potential-Induced Empty Surface States on Cu(111), and Cu(001)," S. L. Hulbert, P. D. Johnson, N. G. Stoffel, W. A. Royer, and N. V. Smith, Phys. B 31, 6815 (1985).
32. "Summary Abstract: Unoccupied Surface States on Cu(100) and Cu(111) Studied by Inverse Photoemission," P. D. Johnson, S. L. Hulbert, D. P. Woodruff, N. G. Stoffel, and N. V. Smith, J. Vac. Sci. Tech. A 3, 1637 (1985).
33. "Calculated Inverse Photoemission Cross-sections from Adsorbed Molecules," P. D. Johnson and J. W. Davenport, Phys. Rev. B 31, 7521 (1985).
34. "Unoccupied Bulk and Surface States on Ag(111) Studied by Inverse Photoemission," S. L. Hulbert, P. D. Johnson, N. G. Stoffel, and N. V. Smith, Phys. Rev. B 32, 3451 (1985).
35. "Image Planes and Surface States," M. Weinert, S. L. Hulbert, and P. D. Johnson, Phys. Rev. Lett. 55, 2055 (1985).
36. "The Use of a Miniature Toroidal Grating Monochromator on the FEL Undulator at the NSLS," P. D. Johnson, S. L. Hulbert and M. R. Howells, BNL Report #37242 (1985).
37. "Unoccupied Surface States on Cu(001): A Comparison of Experiment and Theory," S. L. Hulbert, P. D. Johnson, M. Weinert, and R. F. Garrett, Phys. Rev. B 33, 760 (1986).
38. "A Normal Incidence Grating Spectrometer Designed for Inverse Photoemission Studies in the Range 10-30 eV," P. D. Johnson, S. L. Hulbert, R. F. Garrett, and M. R. Howells, Rev. Sci. Instrum., 57, 1324 (1986).
39. "Intensity Oscillations in the Inverse Photoemission Cross-section of an Unoccupied Surface State on Cu(001)," S. L. Hulbert, P. D. Johnson, and F. Garrett, Phys. Rev. B 33, 732 (1986).
40. "High-resolution Inverse-photoemission Study of the Pd(111) Surface," S.L. Hulbert, P. D. Johnson, and M. Weinert, Phys. Rev. B 34, 3670 (1986).
41. "U5 Undulator Beamline Studies," P. D. Johnson, S. L. Hulbert, R. J. Klaffky, J. Galayda, and G. Vignola, NSLS Annual Report 1986, Eds. S. White-DePace and N. Gmur, BNL Report # 52045, p. 105 (1986).

42. "Inverse Photoemission Observation of the Shape Resonance," S. L. Hulbert, X. Pan, and P. D. Johnson, *Phys. Rev. B* 35, 7710 (1987).
43. "Inverse Photoemission Studies of Adsorbed Diatomic Molecules," P.D. Johnson and S. L. Hulbert, *Phys. Rev. B* 35, 9427 (1987).
44. "Photoemission Studies of the High T_c Superconductor $YBa_2Cu_3O_{7-d}$," P.D. Johnson, S.L. Qiu, L. Jiang, M.W. Ruckman, M. Strongin, S.L. Hulbert, R.F. Garrett, B. Sinkovic, N.V. Smith, R.J. Cava, C.S. Jee, D. Nichols, Kaczanowicz, R.E. Salomon, and J.E. Crow, *Phys. Rev. B* 35, 8811 (1987).
45. "The Electronic Structure of $YBa_2Cu_3O_{7-d}$ above and below T_c ," S.L. Qiu, M. W. Ruckman, P. D. Johnson, J. Chen, L. Jiang, C. L. Lin, M. Strongin, B. Sinkovic, and N. B. Brookes, *A. I. P. Conference Proceedings #165*, N.Y., 245 (1988).
46. "Inverse Photoemission Studies of the High T_c Superconductor," A. J. Viescas, J. M. Tranquada, A. R. Moodenbaugh and P. D. Johnson, *Phys. Rev. B* 37, 3738 (1988).
47. "Interaction of H_2O with a High-Temperature Superconductor," S. L. Qiu, M. W. Ruckman, N. B. Brookes, P. D. Johnson, J. Chen, C. L. Lin, M. Strongin, B. Sinkovic, J. E. Crow, and C-S Jee, *Phys. Rev. B* 37, 3747 (1988).
48. Summary Abstract: "K-Resolved Inverse Photoemission Study of Pd/Nb(110)," X. Pan. P. D. Johnson, and M. Strongin, *J. Vac. Sci. Tech.* A6, 823 (1988).
49. "The NSLS U.V. Undulator: Spectral Characteristics and Operating Experience," P. D. Johnson, J. Galayda, S. L. Hulbert, R. W. Klaffky, A. Luccio, G. Vignola, and C. Jacobsen, *Nucl. Inst. and Meth. A* 26, 106 (1988).
50. "Electron Stimulated Desorption of Excited Hydrogen Atoms for an Alkali Promoted Surface," P. D. Johnson, X. Pan, J. Tranquada, S. L. Hulbert, and E. Johnson, *Springer Series in Surface Science Vol. 13, DIET III*, Eds. R. H. Stulen and M. L. Knotek, 73 (1988).
51. "LEED Observation of a 1×8 Superlattice in the Surface of Lanthanum Cuprate," N. B. Brookes, A. Viescas, P. D. Johnson, J. P. Remeika, A. S. Cooper, and N. V. Smith, *Surf. Sci.* 203, L627 (1988).
52. "Localized States at Metal-Metal Interfaces: An Inverse Photoemission Study of Pd/Nb(110)," X. Pan, P. D. Johnson, M. Weinert, R. E. Watson, J. W. Davenport, G. W. Fernando, and S. L. Hulbert, *Phys. Rev. B* 38, 7850 (1988).
53. "Exchange-Split Adsorbate Band: The Role of Substrate Hybridization," P. D. Johnson, A. Clarke, N. B. Brookes, S. L. Hulbert, B. Sinkovic, and N. V. Smith, *Phys. Rev. Lett.* 61, 2257 (1988).
54. "Unoccupied Band Structure of the Nb(110) Surface," P.D. Johnson and X. Pan, *Phys. Rev. B* 38, 9447 (1988).
55. "Unoccupied States on Pd(110) and the Surface Potential Barrier," N. V. Smith, C. T.

- Chen, J. M. Tranquada, and P. D. Johnson, Phys. Rev. B 38, 12259 (1988).
56. "Unoccupied Electronic Structure of Single Crystal La_2CuO_4 ," N. B. Brookes, A. J. Viescas, P. D. Johnson, J. P. Remeika, A. Cooper, and N. V. Smith, Phys. Rev. B 39, 2736 (1989).
 57. "Study of the Local Magnetic Properties of an Adsorbate by Spin Polarized Auger Electron Spectroscopy," B. Sinkovic, P. D. Johnson, N. B. Brookes, A. Clarke, and N. V. Smith, Phys. Rev. Lett. 62, 2740 (1989).
 58. "Resonant Enhancement of Inverse Photoemission Transitions in Bulk Niobium," X. Pan, A. J. Viescas, and P. D. Johnson, Phys. Rev. B 40, 3425 (1989).
 59. "Interaction of Carbon Monoxide with Fe(001)," N. B. Brookes, A. Clarke, P. D. Johnson, Phys. Rev. Lett. 63, 2764 (1989).
 60. "Magnetic Surface States on Fe(001)," N. B. Brookes, A. Clarke, P. D. Johnson, and M. Weinert, Phys. Rev. B 41, 2643 (1990).
 61. "Formation of Excited Hydrogen States in Stimulated Desorption from an Alkali-promoted Surface," P.D. Johnson, A. J. Viescas, P. Nordlander, and J. C. Tully, Phys. Rev. Lett. 64, 942 (1990).
 62. "Magnetism and Chemisorption," P.D. Johnson, J. Elect. Spect. and Relat. Phen. 51, 249 (1990).
 63. "Spin Polarized Photoemission Studies of the Adsorption of O and S on Fe(001)," A. Clarke, N. B. Brookes, P. D. Johnson, M. Weinert, B. Sinkovic, and N. V. Smith, Phys. Rev. B 41, 9659 (1990).
 64. "Inverse Photoemission," (Review Article) P.D. Johnson and S.L. Hulbert, Rev. Sci. Inst. 61, 2277 (1990).
 65. "Magnetic Structure of Oxidized Fe(001)," B. Sinkovic, P. D. Johnson, N. B. Brookes, A. Clarke, and N. V. Smith, Phys. Rev. Lett. 65, 1647 (1990).
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