

Robert J. Birgeneau

Degrees: B.Sc. 1963 University of Toronto
 Ph.D. 1966 Yale University

Professor Birgeneau received his Ph.D. in Physics from Yale University in 1966 with Professor Werner Wolf. He was on the faculty of Yale for one year and then spent one year at Oxford University. He was at Bell Laboratories from 1968 to 1975 and then went to MIT in September 1975 as Professor of Physics. In 1988 he became head of the department and in 1991 became Dean of Science at MIT. On July 1, 2000, Professor Birgeneau became President of the University of Toronto. Professor Birgeneau's research is primarily concerned with the phases and phase transition behavior of novel states of matter. These include one and two dimensional quantum magnets, liquid crystals, physisorbed and chemisorbed surface monolayers, graphite intercalates, highly disordered magnets and lamellar CuO₂ superconductors. He uses primarily neutron and x-ray scattering techniques to probe these systems.

Professional Society, Committee Memberships, etc.

N.A.S. Panel on Neutron Scattering, Steering Committee, 1977
Co-Chairman, 1979 Gordon Conference on Quantum Solids and Fluids
Policy and Advisory Board, Cornell High Energy Synchrotron Source, 1980-1984,
Associate Editor for Condensed Matter Physics, Physical Review Letters, 1980-1983
Oliver E. Buckley Prize Committee, APS, 1981, 1990-1991
External Advisory Committee, Physics Division, Los Alamos National
Laboratory, 1982-1986
N.A.S. Major Materials Facility Committee, Executive Committee, 1984
Program Advisory Committee, HFBR, Brookhaven, 1984-1987
Co-Chairman, 1986 Gordon Conference on Condensed Matter Physics
Materials Physics Topical Group, Executive Committee, 1986-1988
Editorial Board, Physical Review B, 1987-1989
NSF Materials Research Advisory Committee, 1989-1990
Membership Committee, American Academy of Arts & Sciences, 1989-1992
Board of Trustees, Associated Universities, Inc., 1990-1997
DOE Basic Energy Science Advisory Committee, 1991-1994
Board of Trustees, Boston Museum of Science, 1992-2001
Board of Governors, Argonne National Laboratory, 1992-2001
Advisory Council, NEC Research Institute, 1995-2000
Sloan Foundation, Physics Fellow Selection Committee, 1995-2001
Chair BESAC Panel on Research Reactors, 1996
Chair BESAC Panel on Synchrotron Radiation Sources & Science, 1997
Board of Trustees, Brookhaven Science Associates, 1997-2000
Science Policy Committee, LBNL, Advanced Light Source, 1997-2000
Co-Chair, Polaroid Science and Technology Board, 1998-2001
Board of Trustees, University Health Network, 2000-
Board of Directors, St. Michael's Hospital, 2000-
Board of Trustees, Royal Ontario Museum, 2000-

United Way of Greater Toronto Campaign Cabinet, 2000-2002
Chair, Columbia University Science Planning Review Committee, 2001
Board of Trustees, URA, 2001-
Chair, Visiting Committee, ETH Domain, Switzerland, 2002
DOE Task Force on the Future of Science Programs, 2003

Awards, Honors

Yale Science and Engineering Alumni Achievement Award, 1981
Wilbur Lucius Cross Medal, Yale University, June 1986
Morris Loeb Lecturer, Harvard University, 1986
Oliver E. Buckley Prize for Condensed Matter Physics, APS, 1987
Bertram Eugene Warren Award, ACA, 1988
Richtmyer Lecturer, AAPT, 1989
E.W. Guptill Lecturer, Dalhousie University, 1990
H.L. Welsh Lecturer, University of Toronto, 1994
Emilio Segré Distinguished Lecturer in Physics, Tel Aviv Univ., 1995
IUPAP Magnetism Award, 1997
APS Centennial Speaker, 1998-1999
A.W. Scott Lecturer, Cambridge University, 2000
J.E. Lilienfeld Award, APS, 2000
Tercentennial Lecturer, Yale University, 2001
Distinguished Alumnus Award, TCDSB, 2004
Fellow, American Physical Society
Fellow, American Association for the Advancement of Science
Fellow, American Academy of Arts and Sciences, 1987
Fellow, Royal Society of London, 2001
Fellow, Institute of Physics, 2001
Fellow, Royal Society of Canada, 2002
Foreign Associate, National Academy of Sciences, 2004

Employment

| | |
|----------------|---|
| 1963 - 1966 | Graduate Student, Yale University, Department of Physics, Werner P. Wolf, Supervisor |
| 1965 summer | Visiting Teacher, Benedict College Columbia, South Carolina |
| 1966 - 1967 | Instructor, Yale University Department of Engineering and Applied Science |
| 1967 - 1968 | National Research Council of Canada, Rutherford Memorial Postdoctoral Fellow, Oxford University |
| 1968 - 1974 | Member of Technical Staff, Physical Research Laboratory, Bell Laboratories, Murray Hill, New Jersey |

| | |
|----------------|---|
| 1975 | Research Head, Scattering and Low Energy Physics Department, Bell Laboratories, Murray Hill, New Jersey |
| 1968 - present | Guest Senior Physicist, Brookhaven National Laboratory, Upton, New York |
| 1971, 1979 | Visiting Scientist, Risø National Laboratory, Roskilde, Denmark |
| 1975 - 2000 | Professor of Physics, MIT, Cambridge, Massachusetts |
| 1977 - 1980 | Consultant, Bell Laboratories, Murray Hill, New Jersey |
| 1980 - 1983 | Consultant, IBM Research Laboratories, Yorktown Heights, New York |
| 1982 - 2000 | Cecil and Ida Green Professor of Physics, MIT |
| 1983 - 1986 | Associate Director, Research Laboratory of Electronics, MIT |
| 1985 - 1990 | Consultant, Sandia National Laboratories, Albuquerque, New Mexico |
| 1987 - 1988 | Head, Solid State, Atomic and Plasma Physics, MIT |
| 1988 - 1991 | Head, Department of Physics, MIT |
| 1991 - 2000 | Dean, School of Science, MIT |
| 2000 - | President and Professor of Physics, University of Toronto |

Publications

- 1. Normal Modes of Vibration in Nickel**, Phys. Rev. *136*, A1359, (1964), R.J. Birgeneau, J. Cordes, G. Dolling and A.D.B. Woods.
- 2. Electric Quadrupole-Quadrupole Interaction between Cerium Pairs in Lanthanum Chloride**, Phys. Rev. Lett. *16*, 584, (1966), R.J. Birgeneau, M. T. Hutchings and R. N. Rogers.
- 3. Temperature Variation and Separation Dependence of Exchange Interactions between Gd^{3+} Pairs in $LaCl_3$** , Phys. Rev. Lett. *17*, 308, (1966), R.J. Birgeneau, M.T. Hutchings and W.P. Wolf.
- 4. Magnetic Interactions in Rare Earth Insulators**, Thesis, Yale University, 1966.

5. **Magnetic Properties of GdCl₃ from Gd³⁺ Pair Measurements in LaCl₃ and EuCl₃**, J. Appl. Phys. 38, 957, (1967), R.J. Birgeneau, M.T. Hutchings and W.P. Wolf.
6. **Magnetic Moment Reduction via the Orbit-Lattice Interaction for Ce³⁺ in Rare-Earth Ethyl Sulphates**, Phys. Rev. Lett. 19, 160 (1967), R.J. Birgeneau.
7. **Tables of Matrix Elements of Racah Operator Equivalents**, Can. J. Phys. 45, 3761, (1967), R.J. Birgeneau.
8. **Racah Operator Equivalents in Spin-Lattice Relaxation and Electrostatic Coupling Calculations**, J. Phys. Chem. Solids 28, 2429, (1967), R.J. Birgeneau.
9. **Electric Multipole Interactions between Rare-Earth Ions**, Phys. Rev. 166, 376, (1968), W.P. Wolf and R.J. Birgeneau.
10. **Interaction Constants in CeCl₃**, J. Appl. Phys. 39, 975, (1968), D.P. Landau, R.J. Birgeneau, M.T. Hutchings and W.P. Wolf.
11. **High-Degree Exchange Interaction between Rare-Earth Ions**, Phys. Rev. Lett. 21, 620, (1968), J.M. Baker, R.J. Birgeneau, M.T. Hutchings and J.D. Riley.
12. **Magnetic Interactions between Rare-Earth Ions in Insulators. I. Accurate Electron-Paramagnetic-Resonance Determination of Gd³⁺ Pair-Interaction Constants in LaCl₃**, Phys. Rev. 168, 1026, (1968), M.T. Hutchings, R.J. Birgeneau and W.P. Wolf.
13. **Magnetic Interactions between Rare-Earth Ions in Insulators. II. Electron-Paramagnetic-Resonance Measurements of Gd³⁺ Pair and Gd³⁺-Eu³⁺ Interaction Constants in EuCl₃**, Phys. Rev. 179, 275, (1969), R.J. Birgeneau, M.T. Hutchings and W.P. Wolf.
14. **Magnetic Interactions between Rare-Earth Ions in Insulators. III. EPR Measurements of Ce³⁺ Pair-Interaction Constants in LaCl₃**, Phys. Rev. 175, 1116, (1968), R.J. Birgeneau, M.T. Hutchings and R.N. Rogers.
15. **Mechanisms of Energy Transport between Rare-Earth Ions**, Appl. Phys. Lett. 13, 193, (1968); Erratum 14, 41, (1969), R.J. Birgeneau.
16. **High Degree Electrostatic and Exchange Interactions in Rare-Earth Compounds**, J. Appl. Phys. 40, 1070, (1969), R.J. Birgeneau, M.T. Hutchings, J.M. Baker and J.D. Riley.
17. **Magnetic Interactions in CeBr₃**, J. Appl. Phys. 40, 1151, (1969), R.B. Clover and R.J. Birgeneau.
18. **Neutron Scattering from K₂NiF₄: A Two-Dimensional Heisenberg Antiferromagnet**, Phys. Rev. Lett. 22, 720, (1969), R.J. Birgeneau, H.J. Guggenheim and G. Shirane.
19. **Mechanisms of Energy Transport in Ruby**, J. Chem. Phys. 50, 4282, (1969), R.J. Birgeneau.

20. **Magnons at Low and High Temperatures in the Planar Antiferromagnet K_2NiF_4** , Phys. Rev. Lett. 23, 1394, (1969), J. Skalyo, Jr., G. Shirane, R.J. Birgeneau and H.J. Guggenheim.
21. **Neutron-Diffraction Study of Magnetic Ordering in Ca_2MnO_4** , Phys. Rev. 188, 930, (1969), D.E. Cox, G. Shirane, R.J. Birgeneau and J.B. MacChesney.
22. **Antiferromagnetic Resonance in K_2NiF_4** , Solid State Comm. 8, 13, (1970), R.J. Birgeneau, F. DeRosa and H.J. Guggenheim.
23. **Neutron Scattering Investigation of Phase Transitions and Magnetic Correlations in the Two-Dimensional Antiferromagnets K_2NiF_4 , Rb_2MnF_4 , Rb_2FeF_4** , Phys. Rev. B 1, 2211, (1970), R.J. Birgeneau, H.J. Guggenheim and G. Shirane.
24. **Phase Transitions and Magnetic Correlations in Two-Dimensional Antiferromagnets**, J. Appl. Phys. 41, 1303, (1970), R.J. Birgeneau, J. Skalyo, Jr. and G. Shirane.
25. **Spectroscopic Determination of Crystal-Field Levels of Pr^{3+} in the Paramagnetic Metallic Compound $PrBi$** , J. Appl. Phys. 41, 900, (1970), R.J. Birgeneau, E. Bucher, L. Passell, D.L. Price and K.C. Turberfield.
26. **Neutron and Optical Investigation of Magnons and Magnon-Magnon Interaction Effects in NiF_2** , Phys. Rev. B 2, 1362, (1970), M.T. Hutchings, M.F. Thorpe, R.J. Birgeneau, P.A. Fleury and H.J. Guggenheim.
- 26a. **Interactions between Ce^{3+} pairs and Nd^{3+} pairs in $LaCl_3$ and $LaBr_3$** , Proc. Roy. Soc. Lond. A. 320, 369-395, (1970), J.D. Riley, J.M. Baker and R.J. Birgeneau.
27. **Crystal Fields in Rare-Earth Metallic Compounds**, Phys. Rev. Lett. 25, 752, (1970), K.C. Turberfield, L. Passell, R.J. Birgeneau and E. Bucher.
28. **Spin Correlations in a One-Dimensional Heisenberg Antiferromagnet**, Phys. Rev. Lett. 26, 718, (1971), R.J. Birgeneau, R. Dingle, M.T. Hutchings, G. Shirane and S.L. Holt; J. Appl. Phys. 42, 1265, (1971).
29. **Critical Magnetic Scattering in K_2NiF_4** , Phys. Rev. B 3, 1736, (1971), R.J. Birgeneau, J. Skalyo, Jr. and G. Shirane; J. de Physique 32, C1-882 (1971).
30. **Neutron Crystal-Field Spectroscopy in Rare-Earth Metallic Compounds**, J. Appl. Phys. 42, 1746, (1971), K.C. Turberfield, L. Passell, R.J. Birgeneau and E. Bucher.
31. **Neutron Scattering Study of the Lattice Dynamical Phase Transition in V_3Si** , Sol. State Comm. 9, 397, (1971), G. Shirane, J.D. Axe and R.J. Birgeneau.
32. **Interactions between Cerium Ions in Rare Earth Ethyl Sulphates**, J. Phys. C 4, 1618, (1971), R.J. Anderson, J.M. Baker and R.J. Birgeneau.
33. **Neutron-Scattering Study of $TmSb$: a Model Crystal-Field Only Metallic Paramagnet**, Phys. Rev. B 4, 718, (1971), R.J. Birgeneau, E. Bucher, L. Passell and K.C. Turberfield.
34. **Magnetic Excitons in Singlet-Ground-State Ferromagnets**, Phys. Rev. Lett. 27, 1530, (1971), R.J. Birgeneau, J. Als-Nielsen and E. Bucher.

35. **Transition Probabilities for f-Electron J-Multiplets in Cubic Crystal Fields**, J. Phys. Chem. Solids 33, 59, (1972), R.J. Birgeneau.
36. **Spin Dynamics in the One-Dimensional Antiferromagnet (CD₃)₄NMnCl₃**, Phys. Rev. B 5, 1999, (1972), M.T. Hutchings, G. Shirane, R.J. Birgeneau and S.L. Holt.
37. **Magnetic and Structural Phase Transition in DySb**, Phys. Rev. Lett. 28, 746, (1972), E. Bucher, R.J. Birgeneau, J.P. Maita, G.P. Felcher and T.O. Brun.
38. **Magnetic Properties of FeCl₂ in Zero Field. I. Excitations**, Phys. Rev. B 5, 2607, (1972), R.J. Birgeneau, W.B. Yelon, E. Cohen and J. Makovsky. **II. Long-Range Order**, ibid. 5, 2615, (1972), W.B. Yelon and R.J. Birgeneau.
39. **Exchange Interactions in the Samarium Monochalcogenides**, Phys. Rev. B 5, 3412, (1972), R.J. Birgeneau, E. Bucher, L.W. Rupp, Jr. and W.M. Walsh, Jr.
40. **Neutron Scattering Study of Spin Waves in the Ferrimagnet RbNiF₃**, Phys. Rev. B 6, 2030, (1972), J. Als-Nielsen, R.J. Birgeneau and H.J. Guggenheim.
41. **Neutron Scattering from fcc Pr and Pr₃Tl**, Phys. Rev. B 6, 2724, (1972), R.J. Birgeneau, J. Als-Nielsen and E. Bucher. *Precis in Neutron Inelastic Scattering* (IAEA Vienna, 1972) p. 543.
42. **Singlet Ground State Dynamics**, in *Magnetism and Magnetic Materials* (1972), AIP Conf. Proc. 10, 1664-1668, (1973), R.J. Birgeneau.
43. **Critical Electron-Paramagnetic-Resonance Spin Dynamics in NiCl₂**, Phys. Rev. Lett. 30, 1252, (1973), R.J. Birgeneau, L.W. Rupp, Jr., H.J. Guggenheim, P.A. Lindgard and D.L. Huber.
44. **Spin Waves and Magnetic Ordering in K₂MnF₄**, Phys. Rev. B 8, 304, (1973), R.J. Birgeneau, H.J. Guggenheim and G. Shirane.
45. **Quadrupole Exciton-Phonon Dynamics at the 151 K Phase Transition in PrAlO₃**, Phys. Rev. Lett 31, 1300, (1973), J.K. Kjems, G. Shirane, R.J. Birgeneau and L.G. Van Uitert.
46. **Crystal Fields and the Effective Point Charge Model in the Rare Earth Pnictides**, Phys. Rev. B 8, 5345, (1973), E. Bucher, J.P. Maita, L. Passell and K.C. Turberfield; extended abstract in *Proceedings of International Conf. on Magnetism, Moscow, 1973*, Vol. 5, p. 5.
47. **Fluctuations in One-Dimensional Magnets: Low Temperatures and Long Wavelengths**, *Proceedings of Low Temperature Physics-LT 13, Boulder, Colorado*, edited by K.D. Timmerhaus, W.J. O'Sullivan and E.F. Hammel (Plenum Press, 1973), R.J. Birgeneau, G. Shirane and T.A. Kitchens, Vol. 2, p. 371.
48. **Quadrupole Exciton Dispersion and the 151-K Phase Transition in PrAlO₃**, in *Magnetism and Magnetic Materials* (1973), AIP Conf. Proc. 18, 1299, (1974), J.K. Kjems, G. Shirane, R.J. Birgeneau and L.G. Van Uitert.

49. **Dynamics of an $S = 1/2$, One-Dimensional Heisenberg Antiferromagnet**, Phys. Rev. Lett. 32, 170, (1974), Y. Endoh, G. Shirane, R.J. Birgeneau, Peter M. Richards and S.L. Holt.
50. **Internal-Displacement Order Parameter below the 151-K Phase Transition in PrAlO_3** , Phys. Rev. Lett. 32, 232, (1974), E. Cohen, M.D. Sturge, R.J. Birgeneau, L.G. Van Uitert and J.K. Kjems.
51. **Antiferromagnetic Resonance in NiCl_2** , *Proceeding of the International Conf. on Magnetism, Moscow, 1973*, R.J. Birgeneau, L.W. Rupp, Jr., Vol. IV, p. 287.
52. **A Mechanism for the Q-Dependent Anisotropies in the Rare Earth Metals**, A.I.P. Conf. Proc. 18, 1066, (1974), R.J. Birgeneau and J.K. Kjems.
53. **On the Dynamics of the Singlet-Triplet Ferromagnet**, J. Phys. C 7, L282, (1974), M. Blume and R.J. Birgeneau.
54. **Cooperative Jahn-Teller Phase Transition in PrAlO_3** , Phys. Rev. B10, 2512, (1974), R.J. Birgeneau, J.K. Kjems, G. Shirane and L.G. Van Uitert.
55. **Tricritical Point Phase Diagram in FeCl_2** , Phys. Rev. Lett. 33, 1098, (1974), R.J. Birgeneau, G. Shirane, M. Blume and W. Koehler.
56. **Electronic Excitations in PrAlO_3** , Phys. Rev. B 11, 891, (1975), K.B. Lyons, R.J. Birgeneau, E.I. Bount and L.G. Van Uitert.
57. **Magnetic Excitations in Semiconducting SmS** , Phys. Rev. Lett. 34, 470, (1975), S.M. Shapiro, R.J. Birgeneau and E. Bucher.
58. **Neutron Scattering Study at High Pressure of the Structural Phase Transition in Paratellurite**, J. Phys. C 8, L81, (1975), D.B. McWhan, R.J. Birgeneau, W.A. Bonner, H. Taub and J.D. Axe.
59. **Spin-Wave Dispersion and Sublattice Magnetization in NiCl_2** , J. Phys. C 8, 1059, (1975), P.A. Lindgard, R.J. Birgeneau, J. Als-Nielsen and H.J. Guggenheim.
60. **Excitations in a Two-Dimensional Random Antiferromagnet**, J. Phys. C 8, L328, (1975), R.J. Birgeneau, L.R. Walker, H.J. Guggenheim, J. Als-Nielsen and G. Shirane.
61. **Critical and Tricritical Behavior in FeCl_2 - A Summary**, A.I.P. Conf. Proc. 24, 258, (1975), R.J. Birgeneau.
62. **Spin Dynamics and Critical Fluctuations in a Two-Dimensional Random Antiferromagnet**, Phys. Rev. B 12, 4963, (1975), J. Als-Nielsen, R.J. Birgeneau, H.J. Guggenheim and G. Shirane.
63. **Critical Behaviour of a Two-Dimensional Random Antiferromagnet: $\text{Rb}_2\text{Mn}_{0.5}\text{Ni}_{0.5}\text{F}_4$** , J. Phys. C 9, L121, (1976), J. Als-Nielsen, R.J. Birgeneau, H.J. Guggenheim and G. Shirane.
64. **Neutron Scattering Study of Spin Waves in the Amorphous Ferromagnet $(\text{Fe}_{0.3}\text{Ni}_{0.7})_{0.75}\text{P}_{0.16}\text{B}_{0.06}\text{Al}_{0.03}$** , A.I.P. Conf. Proc. 34, 313, (1976), J.W. Lynn, G. Shirane, R.J. Birgeneau and S. Chen.

65. **Spin Correlations near the Percolation Concentration in Two Dimensions**, Phys. Rev. Lett. *37*, 940, (1976), R.J. Birgeneau, R.A. Cowley, G. Shirane and H.J. Guggenheim; *Precis in Physica 86-88B*, 727, (1977).
66. **Thermally Driven Phase Transitions near the Percolation Threshold in Two Dimensions**, J. Phys. C *9*, L553, (1976), H.E. Stanley, R.J. Birgeneau, P.J. Reynolds and J.F. Nicoll.
67. **Inelastic X-ray Scattering in Liquid Helium**, Phys. Rev. B *15*, 3325, (1977), W.C. Marra, P. Eisenberger and R.J. Birgeneau.
68. **Neutron Scattering Studies of Low Dimensional Magnetic Systems**, *Physica 86-88B*, 639, (1977), G. Shirane and R.J. Birgeneau.
69. **Spin Fluctuations in Random Magnetic-Nonmagnetic Two-Dimensional Antiferromagnets. I. Dynamics**, Phys. Rev. B *15*, 4292, (1977), R.A. Cowley, G. Shirane, R.J. Birgeneau and H.J. Guggenheim.
70. **Mean Field Theory, the Ginzburg Criterion and Marginal Dimensionality of Phase Transitions**, Am. J. Phys. *45*, 554, (1977), J. Als-Nielsen and R.J. Birgeneau.
71. **Magnetic Excitations in Mixed Valent Materials**, in Valence Instabilities and Related Narrow-Band Phenomena, edited by R.D. Parks (Plenum, New York, 1977) pp. 49-60, R.J. Birgeneau and S.M. Shapiro.
72. **Critical Behavior of Pure and Site-Random Two-Dimensional Antiferromagnets**, Phys. Rev. B *16*, 280, (1977), R.J. Birgeneau, J. Als-Nielsen and G. Shirane.
73. **High Resolution X-ray Study of a Second-Order Nematic-Smectic-A Phase Transition**, Phys. Rev. Lett. *39*, 352, (1977), J. Als-Nielsen, R.J. Birgeneau, M. Kaplan, J.D. Litster and C.R. Safinya. Erratum *41*, 1626, (1978).
74. **X-ray Scattering Study of Spin-Lattice Dimerization in a Quasi One-Dimensional Heisenberg Antiferromagnet**, Phys. Rev. Lett. *39*, 507, (1977), D.E. Moncton, R.J. Birgeneau, L.V. Interrante and F. Wudl.
75. **Spin Dynamics in the Mixed Valence Alloy $Ce_{1-x}Th_x$** , Phys. Rev. B *16*, 2225, (1977), S.M. Shapiro, J.D. Axe, R.J. Birgeneau, J.M. Lawrence and R.D. Parks.
76. **Critical Scattering near the Percolation Threshold in $Mn_cZn_{1-c}F_2$** , Phys. Rev. Lett. *39*, 894, (1977), R.A. Cowley, G. Shirane, R.J. Birgeneau and E.C. Svensson.
77. **Field-Dependent Magnetic Phase Transitions in Mixed-Valent TmSe**, Phys. Rev. Lett. *39*, 1021, (1977), H. Bjerrum-Møller and S.M. Shapiro and R.J. Birgeneau.
78. **Experimental Observation of Anomalous Ordering in a Landau-Peierls System**, Phys. Rev. Lett. *39*, 1668, (1977), J. Als-Nielsen, R.J. Birgeneau, M. Kaplan, J.D. Litster and C.R. Safinya.
79. **High-Temperature Spin Dynamics in an Amorphous Ferromagnet**, Phys. Rev. B *17*, 241, (1978), J.A. Tarvin, G. Shirane, R.J. Birgeneau and H.S. Chen.
80. **Spin Dynamics and Magnetic Ordering in Mixed Valence Systems**, J. Appl. Phys. *49*, 2101, (1978), S.M. Shapiro, H.B. Møller, J.D. Axe, R.J. Birgeneau and E. Bucher.

81. **Neutron Study of the Line-Shape and Field Dependence of Magnetic Excitations in $\text{CuCl}_2 \cdot 2\text{N}(\text{C}_5\text{D}_5)$** , Phys. Rev. B *18*, 3530, (1978), I.U. Heilmann, G. Shirane, Y. Endoh, R.J. Birgeneau and S.L. Holt.
82. **Spin-Wave Excitations and Low-Temperature Magnetization in the Amorphous Metallic Ferromagnetic $(\text{Fe}_x\text{Ni}_{1-x})_{75}\text{P}_{16}\text{B}_6\text{Al}_3$** , Phys. Rev. B *18*, 2192, (1978), R.J. Birgeneau, J.A. Tarvin, G. Shirane, E.M. Gyorgy, R.C. Sherwood, H.S. Chen and C.L. Chien.
83. **Pressure Dependence of Magnetic Excitations in SmS**, Phys. Rev. B *18*, 3623, (1978), D.B. McWhan, S.M. Shapiro, J. Eckert, H.A. Mook and R.J. Birgeneau.
84. **Bond Orientational Order Model for Smectic B Liquid Crystals**, J. de Physique-Lettres *39*, L-399, (1978), R.J. Birgeneau and J.D. Litster.
85. **Melting of Submonolayer Krypton Films on Graphite**, Phys. Rev. Lett. *41*, 961, (1978), P.M. Horn, R.J. Birgeneau, P. Heiney and E.M. Hammonds.
86. **Magnetism in One Dimension**, Physics Today *31*, No. 12, 32, (1978), R.J. Birgeneau and G. Shirane.
87. **High Resolution X-ray and Light Scattering Studies of Bilayer Smectic A Compounds**, J. de Physique *40*, C3-339, (1979), J.D. Litster, J. Als-Nielsen, R.J. Birgeneau, S.S. Dana, D. Davidov, F. Garcia-Golding, M. Kaplan, C.R. Safinya and R. Schaezting.
88. **Spin Fluctuations in a Random One-Dimensional Heisenberg Antiferromagnet: $(\text{CD}_3)_4\text{NMn}_c\text{Cu}_{1-c}\text{Cl}_3$** , Phys. Rev. B *19*, 1476, (1979), Y. Endoh, G. Shirane, R.J. Birgeneau and Y. Ajiro.
89. **High-Resolution X-ray and Light-Scattering Study of Critical Behavior Associated with the Nematic-Smectic-A Transition in 4-cyano-4'-octylbiphenyl**, Phys. Rev. B *19*, 1657, (1979), D. Davidov, C.R. Safinya, M. Kaplan, S.S. Dana, R. Schaezting, R.J. Birgeneau and J.D. Litster.
90. **Fluctuations near the Percolation Threshold in Two and Three Dimensions**, J. Appl. Phys. *50*, 1788, (1979), R.J. Birgeneau, R.A. Cowley and G. Shirane.
91. **X-ray Scattering Study of the Commensurate-Incommensurate Transition of Monolayer Krypton on Graphite**, Phys. Rev. Lett. *43*, 47, (1979), P.W. Stephens, P. Heiney, R.J. Birgeneau and P.M. Horn.
92. **Energy Gaps in the Spin-Wave Dispersion of a Linear Antiferromagnet TMMC**, Solid State Comm. *31*, 607, (1979), I.U. Heilmann, R.J. Birgeneau, Y. Endoh, G. Reiter, G. Shirane and S.L. Holt.
93. **High Resolution X-ray and Light Scattering Spectroscopy of Liquid Crystals**, in Light Scattering in Solids, edited by Joseph L. Birman, Herman Z. Cummins and Karl K. Rebane (Plenum Press, 1979) pp. 365-375, P.S. Pershan, G. Aeppli, R.J. Birgeneau and J.D. Litster.

94. **Excitations and Phase Transitions in Random Antiferromagnets**, in Ordering in Strongly Fluctuating Condensed Matter Systems, edited by Tormod Riste (Plenum Press, 1980) pp. 157-181, R.A. Cowley, R.J. Birgeneau and G. Shirane.
95. **Order and Fluctuations in Smectic Liquid Crystals**, *ibid.*, pp. 357-382, J.D. Litster, R.J. Birgeneau, M. Kaplan, C.R. Safinya and J. Als-Nielsen.
96. **X-ray Scattering from the Smectic-A Phase of Liquid Crystals**, J. Als-Nielsen, J.D. Litster, R.J. Birgeneau, M. Kaplan and C.R. Safinya, pp. 57-75.
97. **EPR Study of Spin Dynamics near the Percolation Threshold of $\text{Rb}_2\text{Mn}_c\text{Mg}_{1-c}\text{F}_4$** , *Phys. Rev. B* *20*, 4645, (1979), W.M. Walsh, Jr., R.J. Birgeneau, L. W. Rupp, Jr. and H.J. Guggenheim.
98. **Spin Fluctuations in Random Magnetic-Nonmagnetic Two-Dimensional Antiferromagnets. II Heisenberg Percolation**, *Phys. Rev. B* *21*, 317, (1980), R.J. Birgeneau, R.A. Cowley, G. Shirane, J.A. Tarvin and H.J. Guggenheim.
99. **Spin Fluctuations in Random Magnetic-Nonmagnetic Two-Dimensional Antiferromagnets. III. An Ising System**, *Phys. Rev. B* *21*, 4038, (1980), R.A. Cowley, R.J. Birgeneau, G. Shirane, H.J. Guggenheim and H. Ikeda.
100. **High Resolution X-ray Study of a Smectic-A–Smectic-C Phase Transition**, *Phys. Rev. B* *21*, 4149, (1980), C.R. Safinya, M. Kaplan, J. Als-Nielsen, R.J. Birgeneau, D. Davidov, J.D. Litster, D.L. Johnson and M.E. Neubert.
101. **Observation of Algebraic Decay of Positional Order in a Smectic Liquid Crystal**, *Phys. Rev. B* *22*, 312, (1980), J. Als-Nielsen, J.D. Litster, R.J. Birgeneau, M. Kaplan, C.R. Safinya, A. Lindegaard-Andersen and S. Mathiesen.
102. **Structure of Liquid and Solid Monolayer Xenon on Graphite**, *J. Phys. C* *13*, L301, (1980), E.M. Hammonds, P. Heiney, P.W. Stephens, R.J. Birgeneau and P.M. Horn.
103. **Spin Correlations near the Percolation Threshold in Three-Dimensional Antiferromagnets**, *Phys. Rev. B* *22*, 4412, (1980), R.A. Cowley, G. Shirane, R.J. Birgeneau, E.C. Svensson and H.J. Guggenheim.
104. **Structure and Transitions of Monolayer Krypton and Xenon on Graphite**, in Ordering in Two Dimensions, edited by S.K. Sinha (Elsevier North Holland Inc., 1980) pp. 29-38, R.J. Birgeneau, E.M. Hammonds, P.A. Heiney, P.W. Stephens and P.M. Horn.
105. **X-ray and Heat-Capacity Study of Molecular Oxygen Adsorbed on Graphite**, *Phys. Rev. Lett.* *45*, 1959, (1980), P.W. Stephens, P. Heiney, R.J. Birgeneau, P.M. Horn, J. Stoltenberg and O.E. Vilches.
106. **Competing Order Parameters in Quenched Random Alloys: $\text{Fe}_{1-x}\text{Co}_x\text{Cl}_2$** , *Phys. Rev. Lett.* *45*, 1974, (1980), Po-zen Wong, P.M. Horn, R.J. Birgeneau, C.R. Safinya and G. Shirane.
107. **Synchrotron X-ray Study of Monolayer Krypton Melting**, *J. Phys. C* *14*, L49, (1981), R.J. Birgeneau, G.S. Brown, P.M. Horn, D.E. Moncton and P.W. Stephens.

108. **Low-Temperature Study of the Static and Dynamical Magnetic Properties of the Random One-Dimensional Antiferromagnet $(\text{CD}_3)_4\text{NMn}_c\text{Cu}_{1-c}\text{Cl}_3$** , Phys. Rev. B 23, 4582, (1981), Y. Endoh, I.U. Heilmann, R.J. Birgeneau, G. Shirane, A.R. McGurn and M.F. Thorpe.
109. **Synchrotron X-ray Study of the Commensurate-Incommensurate Transition of Monolayer Krypton on Graphite**, Phys. Rev. Lett. 46, 1533, (1981), D.E. Moncton, P.W. Stephens, R.J. Birgeneau, P.M. Horn and G.S. Brown. Response to Ceva and Marti, Phys. Rev. Lett. 49, 1679, (1982).
110. **High Resolution X-ray Study of the Smectic A-Smectic B Phase Transition and the Smectic B Phase in Butyloxybenzylidene Octylaniline**, Mol. Cryst. Liq. Cryst. 67, 205, (1981), P.S. Pershan, G. Aeppli, J.D. Litster and R.J. Birgeneau.
111. **One- and Two-Magnon Excitations in a One-Dimensional Antiferromagnet in a Magnetic Field**, Phys. Rev. B 24, 3939, (1981), I.U. Heilmann, J.K. Kjems, Y. Endoh, G.F. Reiter, G. Shirane and R.J. Birgeneau.
112. **Critical Fluctuations near a Nematic-Smectic-A-Smectic-C Multicritical Point**, Phys. Rev. Lett. 47, 668, (1981), C.R. Safinya, R.J. Birgeneau, J.D. Litster and M.E. Neubert.
113. **Critical Behavior near the Nematic-Smectic-A Transition in Butyloxybenzylidene Octylaniline (40.8)**, Phys. Rev. A 24, 2624, (1981), R.J. Birgeneau, C.W. Garland, G.B. Kasting and B.M. Ocko.
114. **High-Resolution X-ray-Scattering Study of the Nematic-Smectic A-Reentrant Nematic Transitions in 80CB/60CB Mixtures**, Phys. Rev. Lett. 47, 1206, (1981), A.R. Kortan, H.V. Känel, R.J. Birgeneau and J.D. Litster.
115. **Freezing Transition of Monolayer Xenon on Graphite**, Phys. Rev. Lett. 48, 104, (1982), P.A. Heiney, R.J. Birgeneau, G.S. Brown, P.M. Horn, D.E. Moncton and P.W. Stephens.
116. **Random-Field Effects in Two- and Three-Dimensional Ising Antiferromagnets**, Phys. Rev. Lett. 48, 438, (1982), H. Yoshizawa, R.A. Cowley, G. Shirane, R.J. Birgeneau, H.J. Guggenheim and H. Ikeda.
117. **Spin Correlations near the Ferromagnet-Spin-Glass Crossover Point in Amorphous Fe-Mn Alloys**, Phys. Rev. B 25, 4882, (1982), G. Aeppli, S.M. Shapiro, R.J. Birgeneau and H.S. Chen.
118. **Liquid Crystals: Phases and Phase Transitions**, Physics Today 35, No. 5, 26, (1982), J. D. Litster and R.J. Birgeneau.
119. **High Resolution X-ray Studies of Monolayer Krypton on Varied Forms of Graphite**, Physica 109&110B, 1785, (1982), R.J. Birgeneau, P.A. Heiney and J.P. Pelz.
120. **Synchrotron X-ray Study of Novel Crystalline-B Phases in Heptyloxybenzylidene-Heptylaniline (70.7)**, Phys. Rev. Lett. 49, 553, (1982), J. Collett, L.B. Sorensen, P.S. Pershan, J.D. Litster, R.J. Birgeneau and J. Als-Nielsen.
121. **Random-Field Effects in Metamagnet Tricritical Point Measurements**, Phys. Rev. B 26, 3751, (1982), R.J. Birgeneau and A. Nihat Berker.

122. **Commensurate-Incommensurate Transition in Bromine-Intercalated Graphite: A Model Stripe-Domain System**, Phys. Rev. Lett. 49, 1427, (1982), A.R. Kortan, A. Erbil, R.J. Birgeneau and M.S. Dresselhaus.
123. **High-Resolution X-ray Scattering Study of the Nematic to Smectic-C Transitions in $\overline{8}S5/\overline{7}S5$ Mixtures**, Phys. Rev. Lett. 50, 56, (1983), C.R. Safinya, L.J. Martínez-Miranda, M. Kaplan, J.D. Litster and R.J. Birgeneau.
124. **$Fe_{1-x}Co_xCl_2$: Competing Anisotropies and Random Molecular Fields**, Phys. Rev. B 27, 428, (1983), P. Wong, P.M. Horn, R.J. Birgeneau and G. Shirane.
125. **X-ray Study of Molecular Oxygen Adsorbed on Graphite**, Surf. Sci. 125, 539, (1983), P.A. Heiney, P.W. Stephens, S.G.J. Mochrie, J. Akimitsu, R.J. Birgeneau and P.M. Horn.
126. **Random Field Effects in Magnets**, Physica 120B, 180, (1983), R.J. Birgeneau.
127. **Smectic-A–Smectic-C Transition: Mean Field or Critical**, Phys. Rev. A 27, 1251, (1983), R.J. Birgeneau, C.W. Garland, A.R. Kortan, J.D. Litster, M. Meichle, B.M. Ocko, C. Rosenblatt, L.J. Yu and J. Goodby.
128. **Commensurate-Incommensurate and Melting Transitions in Bromine-Intercalated Single Crystal Kish Graphite**, *Intercalated Graphite, Materials Research Society Symposia Proceedings*, edited by M.S. Dresselhaus, J.E. Fisher and M.J. Moran (North Holland Elsevier, New York, 1982), Vol. 20, p. 21, A. Erbil, A.R. Kortan, R.J. Birgeneau and M.S. Dresselhaus.
129. **Structure and Phase Transitions in Bromine and Potassium-Mercury Intercalated Graphite**, Synthetic Metals 7, 273, (1983), A. Erbil, G. Timp, A.R. Kortan, R.J. Birgeneau and M.S. Dresselhaus.
130. **Critical Behavior of a Site-Diluted Three-Dimensional Ising Magnet**, Phys. Rev. B 27, 6747, (1983), R.J. Birgeneau, R.A. Cowley, G. Shirane, H. Yoshizawa, D.P. Belanger, A.R. King and V. Jaccarino.
131. **Critical Behavior at the Nematic-Smectic-A Transition in Butyloxybenzylidene Heptylaniline (40.7)**, Phys. Rev. A 27, 3234, (1983), C.W. Garland, M. Meichle, B.M. Ocko, A.R. Kortan, C.R. Safinya, L.J. Yu, J.D. Litster and R.J. Birgeneau.
132. **Magnetic Structure and Dynamics in α - and β -Phase Solid Oxygen**, Phys. Rev. B 28, 452, (1983), P.W. Stephens, R.J. Birgeneau, C.F. Majkrzak and G. Shirane.
133. **Direct Observation of Layer-by-Layer Wetting of Graphite by Ethylene**, Phys. Rev. Lett. 51, 407, (1983), M. Sutton, S.G.J. Mochrie and R.J. Birgeneau.
134. **Random-Field Effects in the Diluted Two-Dimensional Ising Antiferromagnet $Rb_2Co_{0.7}Mg_{0.3}F_4$** , Phys. Rev. B 28, 1438, (1983), R.J. Birgeneau, H. Yoshizawa, R.A. Cowley, G. Shirane and H. Ikeda.
135. **Random Fields and Three Dimensional Ising Models: $Co_xZn_{1-x}F_2$** , Phys. Rev. B 28, 2602, (1983), M. Hagen, R.A. Cowley, S. Satija, H. Yoshizawa, G. Shirane, R.J. Birgeneau and H.J. Guggenheim.

136. **Disorder, Random Fields and Competing Interactions in Antiferromagnets**, in Multicritical Phenomena, edited by R. Pynn and A. Skjeltorp (Plenum, New York, 1984), p. 333ff, R.A. Cowley, R.J. Birgeneau, G. Shirane and H. Yoshizawa.
137. **Intercalate Structure, Melting and the Commensurate-Incommensurate Transition in Bromine-Intercalated Graphite**, Phys. Rev. B 28, 6329, (1983), A. Erbil, A.R. Kortan, R.J. Birgeneau and M.S. Dresselhaus.
138. **X-ray Scattering Study of the Structure and Freezing Transition of Monolayer Xenon on Graphite**, Phys. Rev. B 28, 6416, (1983), P.A. Heiney, P.W. Stephens, R.J. Birgeneau, P.M. Horn and D.E. Moncton.
139. **Spin Correlations and Reentrant Spin-Glass Behavior in Amorphous Fe-Mn Alloys: Statics**, Phys. Rev. B 28, 5160, (1983), G. Aeppli, S.M. Shapiro, R.J. Birgeneau and H.S. Chen.
140. **Spin Correlations and Reentrant Spin-Glass Behavior in Amorphous Fe-Mn Alloys. II Dynamics**, Phys. Rev. B 29, 2589, (1984), G. Aeppli, S.M. Shapiro, R.J. Birgeneau and H.S. Chen.
141. **Critical and Tricritical Behavior at the Nematic to Smectic-A Transition**, Phys. Rev. Lett. 52, 208, (1984), B.M. Ocko, R.J. Birgeneau, J.D. Litster and M.E. Neubert.
142. **A High Resolution X-ray Scattering Study of the Phases and Phase Transitions in N-(4-n-Butyloxybenzylidene)-4-n-Heptylaniline (40.7)**, J. Physique 45, 113, (1984), B.M. Ocko, A.R. Kortan, R.J. Birgeneau and J.W. Goodby.
143. **Structural Aspects of the Magnetic and Melting Transitions in Bilayer Molecular Oxygen on Graphite**, Surf. Sci. 138, 599, (1984), S.G.J. Mochrie, M. Sutton, J. Akimitsu, R.J. Birgeneau, P.M. Horn, P. Dimon and D.E. Moncton.
144. **Nematic-Smectic A-Reentrant Nematic Transitions in 80CB:60CB Mixtures**, J. Physique 45, 529, (1984), A.R. Kortan, H. von Känel, R.J. Birgeneau and J.D. Litster.
145. **High-resolution X-ray-Scattering Study of the Commensurate-Incommensurate Transition of Monolayer Kr on Graphite**, Phys. Rev. B 29, 3512, (1984), P.W. Stephens, P.A. Heiney, R.J. Birgeneau, P.M. Horn, D.E. Moncton and G.S. Brown.
146. **Phase Transitions in Diluted Magnets: Critical Behavior, Percolation and Random Fields**, J. Stat. Phys. 34, 817, (1984), R.J. Birgeneau, R.A. Cowley, G. Shirane and H. Yoshizawa.
147. **Spin Correlations near the Ferromagnetic-to-Spin-Glass Crossover**, J. Appl. Phys. 55, 1628, (1984), G. Aeppli, S.M. Shapiro, H. Maletta, R.J. Birgeneau and H.S. Chen.
148. **Multilayer Adsorption of Ethylene on Graphite: Layering, Prewetting and Wetting**, Phys. Rev. B 30, 263, (1984), S.G.J. Mochrie, M. Sutton, R.J. Birgeneau, D.E. Moncton and P.M. Horn.
149. **Phase Diagram and Phase Transitions of Krypton on Graphite in the One-to-Two-Layer Regime**, Phys. Rev. B 30, 1589, (1984), E.D. Specht, M. Sutton, R.J. Birgeneau, D.E. Moncton and P.M. Horn.

150. **Algebraic Decay of Successive Harmonics in a Model Two-Dimensional System**, Phys. Rev. Lett. 53, 985, (1984), S.G.J. Mochrie, A.R. Kortan, R.J. Birgeneau and P.M. Horn.
151. **Random Fields and the Weakly Anisotropic Ising Model: $Mn_xZn_{1-x}F_2$** , Phys. Rev. B 30, 6650, (1984), R.A. Cowley, H. Yoshizawa, G. Shirane, M. Hagen and R.J. Birgeneau.
152. **Rotational Transition of Incommensurate Kr Monolayers on Graphite**, Phys. Rev. Lett. 53, 2250, (1984), K. D'Amico, D.E. Moncton, E.D. Specht, R.J. Birgeneau, S.E. Nagler and P.M. Horn.
153. **Random Field Effects in the Three Dimensional Ising Magnet: $Fe_xZn_{1-x}F_2$** , Z. Phys. B 58, 15, (1984), R.A. Cowley, H. Yoshizawa, G. Shirane and R.J. Birgeneau.
154. **First-Order and Continuous Melting in a Two-Dimensional System: Monolayer Xenon on Graphite**, Phys. Rev. B 31, 437, (1985), P. Dimon, P.M. Horn, M. Sutton, R.J. Birgeneau and D.E. Moncton.
155. **Successive Ising Phase Transitions in a Random Antiferromagnet with Competing Anisotropies**, Phys. Rev. B 31, 316, (1985), K. Katsumata, H. Yoshizawa, G. Shirane and R.J. Birgeneau.
156. **Phases and Phase Transitions in Two Dimensional Systems with Competing Interactions**, in The Structure of Surfaces, edited by M.A. Van Hove and SY. Tong (Springer Verlag, Berlin, 1985) pp. 404-412, R.J. Birgeneau, P.M. Horn and D.E. Moncton.
157. **Neutron Scattering Study of the Effect of a Random Field on the Three-Dimensional Dilute Ising Antiferromagnet $Fe_{0.6}Zn_{0.4}F_2$** , Phys. Rev. B 31, 4548, (1985), H. Yoshizawa, R.A. Cowley, G. Shirane and R.J. Birgeneau.
158. **Temporal Phase Transition in the Three-Dimensional Random-Field Ising Model**, Phys. Rev. Lett. 54, 2147, (1985), R.J. Birgeneau, R.A. Cowley, G. Shirane and H. Yoshizawa.
159. **The Freezing Transition of Monolayer Xenon on Single Crystal Graphite**, J. Physique Lett. 46, L-561, (1985), E.D. Specht, R.J. Birgeneau, K.L. D'Amico, D.E. Moncton, S.E. Nagler and P.M. Horn.
160. **Orientalional Ordering in Xenon Fluid Monolayers on Single Crystals of Exfoliated Graphite**, Phys. Rev. B 32, 7373, (1985), S.E. Nagler, P.M. Horn, T.F. Rosenbaum, R.J. Birgeneau, M. Sutton, S.G.J. Mochrie, D.E. Moncton and R. Clarke.
161. **A High Resolution Synchrotron X-ray Study of the Weakly-Incommensurate Phase of High Stage Bromine-Intercalated Graphite**, Z. Phys. B 62, 79, (1985), S.G.J. Mochrie, A.R. Kortan, R.J. Birgeneau and P.M. Horn.
162. **Electron-Beam-Induced Damage and Structure of $SbCl_5$ -Graphite Intercalation Compounds**, Phys. Rev. B 33, 2738, L. Salamanca-Riba, G. Roth, J.M. Gibson, A.R. Kortan, G. Dresselhaus and R.J. Birgeneau.
163. **Low-Temperature Structures of Xe on Graphite in the One- to Two-Layer Regime**, Phys. Rev. B 33, 3344, (1986), Hawoong Hong, R.J. Birgeneau and M. Sutton.

164. **Crossover to Tricritical Behavior at the Nematic to Smectic A Transition: An X-ray Scattering Study**, *Z. Phys. B* 62, 487, (1986), B.M. Ocko, R.J. Birgeneau and J.D. Litster.
165. **Random Fields and Phase Transitions**, *Physica 137B*, 83, (1986), R.J. Birgeneau, Y. Shapira, G. Shirane, R.A. Cowley and H. Yoshizawa.
166. **Two-Dimensional Rare Gas Solids**, *Science* 232, 329, (1986), R.J. Birgeneau and P.M. Horn.
167. **X-ray Study of Fluctuations near the Nematic-Smectic-A-Smectic-C Multicritical Point**, *Phys. Rev. Lett.* 56, 2264, (1986), L.J. Martínez-Miranda, A.R. Kortan and R.J. Birgeneau.
168. **Orientalional and Positional Order in a Tilted Hexatic Liquid-Crystal Phase**, *Phys. Rev. Lett.* 57, 98, (1986), J.D. Brock, A. Aharony, R.J. Birgeneau, K. Evans-Lutterodt, J.D. Litster, P.M. Horn, G.B. Stephenson and A.R. Tajbakhsh.
169. **Multicriticality in Hexatic Liquid Crystals**, *Phys. Rev. Lett.* 57, 1012, (1986), A. Aharony, R.J. Birgeneau, J.D. Brock and J.D. Litster.
170. **Critical Behavior of the Three-Dimensional Site-Random Ising Magnet: $Mn_xZn_{1-x}F_2$** , *Phys. Rev. B* 34, 4719, (1986), P. Mitchell, R.A. Cowley, H. Yoshizawa, P. Böni, Y.J. Uemura and R.J. Birgeneau.
171. **Crossover from Spin Waves to Quasilocalized Excitations in the Diluted Antiferromagnet $(Mn_{0.5}Zn_{0.5})F_2$** , *Phys. Rev. Lett.* 57, 1947, (1986), Y.J. Uemura and R.J. Birgeneau.
172. **Phase Transitions and Metastable States in the Presence of Random Fields**, *Physica 140A*, 285, (1986), R.A. Cowley, R.J. Birgeneau and G. Shirane.
173. **Phase Transitions, Metastable States and Random Fields**, *Physica Scripta T13*, 212, (1986), R.A. Cowley, R.J. Birgeneau, G. Shirane and H. Yoshizawa.
174. **Layering and Mixing in Coadsorbed Xenon-Ethylene Films on Graphite**, *Phys. Rev. B* 35, 2064, (1987), S.K. Satija, M. Sutton, R.J. Birgeneau, Hawoong Hong, L. Passell and J.P. Wicksted.
175. **Novel Melting Transition in a Two-Dimensional Stripe-Domain System**, *Phys. Rev. Lett.* 58, 690, (1987), S.G.J. Mochrie, A.R. Kortan, P.M. Horn and R.J. Birgeneau.
176. **Liquids, Crystals and Liquid Crystals**, *Proc. Natl. Acad. Sci.* 84, 4689, (1987), R.J. Birgeneau.
177. **Critical Behavior at Nematic-to-Smectic-A-Phase Transitions for Smectic-A₁ and Reentrant Smectic-A_d Phases**, *Phys. Rev. A* 36, 1387, (1987), K.W. Evans-Lutterodt, J.W. Chung, B.M. Ocko, R.J. Birgeneau, C. Chiang, C.W. Garland, E. Chin, J. Goodby and N.H. Tinh.
178. **Magnetic X-ray Scattering Measurements on MnF_2** , *Phys. Rev. B* 36, 5609, (1987), A.I. Goldman, K. Mohanty, G. Shirane, P.M. Horn, R.L. Greene, C.J. Peters, T.R. Thurston and R.J. Birgeneau.

- 179. Phase Diagram, Fluctuations and Phase Transitions near the Liquid Crystal Nematic-Smectic-A-Smectic-C Multicritical Point**, Phys. Rev. A *36*, 2372, (1987), L.J. Martínez-Miranda, A.R. Kortan and R.J. Birgeneau.
- 180. Soft-Phonon Behavior and Transport in Single-Crystal La₂CuO₄**, Phys. Rev. Lett. *59*, 1329, (1987) R.J. Birgeneau, C.Y. Chen, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, C.J. Peters, P.J. Picone, T. Thio, T.R. Thurston, H.L. Tuller, J.D. Axe, P. Böni and G. Shirane.
- 181. Two-Dimensional Antiferromagnetic Quantum Spin-Fluid State in La₂CuO₄**, Phys. Rev. Lett. *59*, 1613, (1987), G. Shirane, Y. Endoh, R.J. Birgeneau, M.A. Kastner, Y. Hidaka, M. Oda, M. Suzuki and T. Murakami.
- 182. X-ray Scattering Study of the Thermal Roughening of Ag(110)**, Phys. Rev. Lett. *59*, 2075, (1987), G.A. Held, J.L. Jordan-Sweet, P.M. Horn, A. Mak and R.J. Birgeneau.
- 183. Grazing-Incidence X-ray Study of the Structures and Phase Transitions of Hydrogen on Tungsten (100)**, Phys. Rev. Lett. *59*, 2192, (1987), J.W. Chung, K.W. Evans-Lutterodt, E.D. Specht, R.J. Birgeneau, P.J. Estrup and A.R. Kortan.
- 184. Commensurate-Incommensurate and Rotational Transitions of Monolayer Xenon on Single-Crystal Graphite**, Phys. Rev. B *36*, 7311, (1987), Hawoong Hong, C.J. Peters, A. Mak, R.J. Birgeneau, P.M. Horn and H. Suematsu.
- 185. Magnons and Fractons in the Diluted Antiferromagnet Mn_xZn_{1-x}F₂**, Phys. Rev. B *36*, 7024, (1987), Y.J. Uemura and R.J. Birgeneau.
- 186. Phase Diagram and Phase Transitions of Krypton on Graphite in the Extended Monolayer Regime**, Z. Phys. B *69*, 347, (1987), E.D. Specht, A. Mak, C. Peters, M. Sutton, R.J. Birgeneau, K.L. D'Amico, D.E. Moncton, S.E. Nagler and P.M. Horn.
- 187. Resistivity of Nonmetallic La_{2-y}Sr_yCu_{1-x}Li_xO_{4-δ} Single Crystals and Ceramics**, Phys. Rev. B *37*, 111, (1988), M.A. Kastner, R.J. Birgeneau, C.Y. Chen, Y.M. Chiang, D.R. Gabbe, H.P. Jenssen, T. Junk, C.J. Peters, P.J. Picone, T. Thio, T.R. Thurston and H.L. Tuller.
- 188. Magnetic Phase Diagram and Magnetic Pairing in Doped La₂CuO₄**, Phys. Rev. Lett. *60*, 1330, (1988), A. Aharony, R.J. Birgeneau, A. Coniglio, M.A. Kastner and H.E. Stanley.
- 189. Static and Dynamic Spin Correlations in Pure and Doped La₂CuO₄**, Phys. Rev. B *37*, 7443, (1988), Y. Endoh, K. Yamada, R.J. Birgeneau, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, C.J. Peters, P.J. Picone, T.R. Thurston, J.M. Tranquada, G. Shirane, Y. Hidaka, M. Oda, Y. Enomoto, M. Suzuki and T. Murakami.
- 190. Synchrotron Magnetic X-ray Measurements of the Order Parameter in Mn_{0.5}Zn_{0.5}F₂**, Phys. Rev. B *37*, 9559, (1988), T.R. Thurston, C.J. Peters, R.J. Birgeneau and P.M. Horn.
- 191. Magnetic Frustration Model for Superconductivity in Planar CuO₂ Systems**, Z. Phys. B *71*, 57, (1988), R.J. Birgeneau, M.A. Kastner and A. Aharony. See also Int. J. Mod. Phys. *1*, 649, (1988).

192. **Two-Dimensional Zone-Center Spin-Wave Excitations in La_2CuO_4** , Phys. Rev. B 37, 9761, (1988), C.J. Peters, R.J. Birgeneau, M.A. Kastner, H. Yoshizawa, Y. Endoh, J. Tranquada, G. Shirane, Y. Hidaka, M. Oda, M. Suzuki and T. Murakami.
193. **Antisymmetric Exchange and Its Influence on Magnetic Structure and Conductivity of La_2CuO_4** , Phys. Rev. B 38, 905, (1988), T. Thio, T.R. Thurston, N.W. Preyer, P.J. Picone, M.A. Kastner, H.P. Jenssen, D.R. Gabbe, C.Y. Chen, R.J. Birgeneau and A. Aharony.
194. **Lattice Instability and Soft Phonons in Single-Crystal $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B 38, 185, (1988), P. Böni, J.D. Axe, G. Shirane, R.J. Birgeneau, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, C.J. Peters, P.J. Picone and T.R. Thurston.
195. **Magnetic Phases and Possible Magnetic Pairing in Doped Lanthanum Cuprate**, Physica C 153-155, 1211, (1988), A. Aharony, R.J. Birgeneau, A. Coniglio, M.A. Kastner and H.E. Stanley.
196. **Static and Dynamic Spin Correlations and Antisymmetric Exchange in La_2CuO_4** , Physica C 153-155, 515, (1988), R.J. Birgeneau, M.A. Kastner, A. Aharony, G. Shirane and Y. Endoh.
197. **Neutron-Scattering Study of the Transition from Antiferromagnetic to Weak Ferromagnetic Order in La_2CuO_4** , Phys. Rev. B 38, 6636, (1988), M.A. Kastner, R.J. Birgeneau, T.R. Thurston, P.J. Picone, H.P. Jenssen, D.R. Gabbe, M. Sato, K. Fukuda, S. Shamoto, Y. Endoh, K. Yamada and G. Shirane.
198. **Antiferromagnetic Spin Correlations in Insulating, Metallic and Superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B 38, 6614, (1988), R.J. Birgeneau, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone, T.R. Thurston, G. Shirane, Y. Endoh, M. Sato, K. Yamada, Y. Hidaka, M. Oda, Y. Enomoto, M. Suzuki and T. Murakami.
199. **Antiferromagnetic Ordering of Cu Ions in $\text{NdBa}_2\text{Cu}_3\text{O}_{6.1}$** , Phys. Rev. B 38, 8720, (1988), A.H. Moudden, G. Shirane, J.M. Tranquada, R.J. Birgeneau, Y. Endoh, K. Yamada, Y. Hidaka and T. Murakami.
200. **The Phase Diagram of $\text{Rb}_2\text{Mn}_{0.7}\text{Mg}_{0.3}\text{F}_4$ in a Magnetic Field**, J. de Physique 49, C8, Suppl. 12, 1221, (1988), R.A. Cowley, R.J. Birgeneau, T.R. Thurston and G. Shirane.
201. **Neutron Magnetic Scattering Studies from Pure and Doped La_2CuO_4** , Japanese Journal of Applied Physics, Series 1, Superconducting Materials, 24-27, (1988), Y. Endoh, K. Yamada, E. Kudo, Y. Hidaka, M. Oda, Y. Enomoto, M. Suzuki, T. Murakami, R.J. Birgeneau, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, C.J. Peters, P.J. Picone, T.R. Thurston, G. Shirane and J.M. Tranquada.
202. **Magnetism and Superconductivity in Doped Planar CuO_2 Systems**, *Proc. Adriatic Research Conf. & Workshop on Towards the Theoretical Understanding of High T_c Superconductors*, vol. 14, edited by S. Lundqvist, E. Tosatti, M.P. Tosi and Yu Lu (World Scientific Publishing, Singapore, 1988) p. 113, A. Aharony, R.J. Birgeneau and M.A. Kastner.
203. **Two and Three Dimensional Exotic Liquid Crystals**, McGraw-Hill Yearbook of Science and Technology, pp. 189-191, 1989, R.J. Birgeneau.

204. **Successive Antiferromagnetic Phase Transitions in Single-Crystal La_2CoO_4** , Phys. Rev. B 39, 2336, (1989), K. Yamada, M. Matsuda, Y. Endoh, B. Keimer, R.J. Birgeneau, S. Onodera, J. Mizusaki, T. Matsuura and G. Shirane.
205. **Static and Dynamic Spin Fluctuations in Superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B 39, 2868, (1989), R.J. Birgeneau, Y. Endoh, K. Kakurai, Y. Hidaka, T. Murakami, M.A. Kastner, T.R. Thurston, G. Shirane and K. Yamada.
206. **Hexatic Ordering in Freely Suspended Liquid Crystal Films**, Z. Phys. B 74, 197, (1989), J.D. Brock, D.Y. Noh, B.R. McClain, J.D. Litster, R.J. Birgeneau, A. Aharony, P.M. Horn and J.C. Liang.
207. **Lattice Instability in Single-Crystal $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Physica B156-157, 902, (1989), P. Böni, J.D. Axe, G. Shirane, R.J. Birgeneau, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone, T.R. Thurston, M. Sato and S. Shamoto.
208. **The Effects of Random Fields on the Critical and Bicritical Behavior of $\text{Mn}_x\text{Zn}_{1-x}\text{F}_2$** , Z. Phys. B 75, 303, (1989), R.A. Cowley, G. Shirane, H. Yoshizawa, Y.J. Uemura and R.J. Birgeneau.
209. **Neutron Scattering Studies of Structural and Magnetic Excitations in Copper Oxides - A Review**, in Physical Properties of High Temperature Superconductors, edited by D.M. Ginsberg (World Scientific Publishing, March 1989), R.J. Birgeneau and G. Shirane.
210. **Order-Disorder Transition of the W(001) Surface**, Phys. Rev. Lett. 62, 1294, (1989), I.K. Robinson, A.A. MacDowell, M.S. Altman, P.J. Estrup, K. Evans-Lutterodt, J.D. Brock and R.J. Birgeneau.
211. **Neutron Scattering Study of Soft Optical Phonons in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4-y}$** , Phys. Rev. B 39, 4327, (1989), T.R. Thurston, R.J. Birgeneau, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone, N.W. Preyer, J.D. Axe, P. Böni, G. Shirane, M. Sato, K. Fukuda and S. Shamoto.
212. **Two-Dimensional Quantum Spin Fluid - Progenitor of High Temperature Superconductivity**, in Mechanisms of High Temperature Superconductivity, vol. 11, edited by H. Kamimura and A. Oshiyama (Springer-Verlag Berlin - Heidelberg 1989) p. 129, R.J. Birgeneau, Y. Endoh, D.R. Gabbe, Y. Hidaka, H.P. Jenssen, T. Murakami, M. Oda, P.J. Picone, G. Shirane, M. Suzuki, T.R. Thurston and K. Yamada.
213. **Quasi-elastic and Inelastic Neutron Scattering Studies of Superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , IBM Journal of Res. & Devl. 33, 270, (1989), R.J. Birgeneau, Y. Endoh, Y. Hidaka, K. Kakurai, M.A. Kastner, T. Murakami, G. Shirane, T.R. Thurston and K. Yamada. Also in Mechanisms of High Temperature Superconductivity, edited by H. Kamimura and A. Oshiyama (Springer-Verlag Berlin - Heidelberg 1989), p. 120.
214. **Magnetic Frustration Model and Superconductivity in Doped Planar CuO_2 Systems**, IBM Journal of Res. & Dev. 33, 287, (1989), A. Aharony, R.J. Birgeneau and M.A. Kastner.
215. **Conductivity and Hall Coefficient in $\text{La}_2\text{CuO}_{4+y}$ near the Insulator-Metal Transition**, Phys. Rev. B 39, 11563, (1989), N.W. Preyer, R.J. Birgeneau, C.Y. Chen, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone and T. Thio.

216. **X-ray Study of W(001) with and without Hydrogen**, J. Vac. Sci. Tech. *A7*, 2209, (1989), K. Evans-Lutterodt, R.J. Birgeneau, E.D. Specht, J.W. Chung, J.D. Brock, M.S. Altman, P.J. Estrup, I.K. Robinson and A.A. MacDowell.
217. **Liquids, Crystals and Liquid Crystals**, Physics Today *42*, no. 7, 52, (1989), J.D. Brock, R.J. Birgeneau, J.D. Litster and A. Aharony. (Reprinted in Japanese in Parity, Vol. 5, No. 3, page 2, 1990).
218. **Temperature Dependence of the Magnetic Excitations in La_{1.85}Sr_{0.15}CuO₄ (T_c = 33 K)**, Phys. Rev. Lett. *63*, 330, (1989), G. Shirane, R.J. Birgeneau, Y. Endoh, P. Gehring, M.A. Kastner, K. Kitazawa, H. Kojima, I. Tanaka, T.R. Thurston and K. Yamada.
219. **Hexatic Ordering in Liquid Crystal Films**, Contemp. Phys. *30*, 321, (1989), J.D. Brock, R.J. Birgeneau, J.D. Litster and A. Aharony.
220. **Spin Dynamics in the Two-Dimensional Quantum Antiferromagnet La₂CuO₄**, Phys. Rev. B *40*, 4557, (1989), K. Yamada, K. Kakurai, Y. Endoh, T.R. Thurston, M.A. Kastner, R.J. Birgeneau, G. Shirane, Y. Hidaka and T. Murakami.
221. **Neutron Scattering Study of the Magnetic Excitations in Metallic and Superconducting La_{2-x}Sr_xCuO_{4-y}**, Phys. Rev. B *40*, 4585, (1989), T.R. Thurston, R.J. Birgeneau, M.A. Kastner, N.W. Preyer, G. Shirane, Y. Fujii, K. Yamada, Y. Endoh, K. Kakurai, M. Matsuda, Y. Hidaka and T. Murakami.
222. **Neutron Scattering Studies of Magnetic Excitations in La_{2-x}Sr_xCuO₄**, *International Symposium on the Electronic Structure of High T_c Superconductors* (Rome), edited by A. Bianconi and A. Marcelli (Pergamon, Oxford, 1989) pp. 123-140, M.A. Kastner, A. Aharony, R.J. Birgeneau, Y. Endoh, K. Fukuda, D.R. Gabbe, Y. Hidaka, H.P. Janssen, T. Murakami, M. Oda, P.J. Picone, M. Sato, S. Shamoto, G. Shirane, M. Suzuki, T.R. Thurston and K. Yamada.
223. **Synchrotron X-ray Study of the Structures and Phase Transitions of Monolayer Xenon on Single-Crystal Graphite**, Phys. Rev. B *40*, 4797, (1989), Hawoong Hong, C.J. Peters, A. Mak, R.J. Birgeneau, P.M. Horn and H. Suematsu.
224. **Fluid, Hexatic and Crystal Phases in Terephthal-bis-(4n)-alkylanilines**, Phys. Rev. B *40*, 4920, (1989), D.Y. Noh, J.D. Brock, J.D. Litster, R.J. Birgeneau and J.W. Goodby.
225. **Extended Fisher Renormalized Tricritical Behavior of the Nematic-Smectic-A Transition in Liquid-Crystal Mixtures**, Phys. Rev. A *40*, 4625, (1989), J.P. Hill, B. Keimer, K.W. Evans-Lutterodt, R.J. Birgeneau and C.W. Garland.
226. **Disordering Transitions of Metal Surfaces**, J. de Physique (Paris) Colloq. *C7 50*, 245, (1989), G.A. Held, J.L. Jordan-Sweet, P.M. Horn, A. Mak and R.J. Birgeneau.
227. **Two-Dimensional Spin Correlations and Successive Magnetic Phase Transitions in Nd₂CuO₄**, Phys. Rev. B *40*, 7023, (1989), Y. Endoh, M. Matsuda, K. Yamada, K. Kakurai, Y. Hidaka, G. Shirane and R.J. Birgeneau.
228. **X-ray Scattering Study of the Deconstruction and Thermal Roughening of the Au (110) 1 x 3 Reconstructed Surface**, Solid St. Comm. *72*, 37, (1989), G.A. Held, J.L. Jordan-Sweet, P.M. Horn, A. Mak and R.J. Birgeneau.

229. **Weak Localization Effects in Conductance Measurements of $\text{La}_{2-x}\text{CuO}_{4-y}$** , *Physica C 162-164*, 1003, (1989), N.W. Preyer, R.J. Birgeneau, A. Cassanho, C.Y. Chen, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone and T. Thio.
230. **Frequency Dependence of the Conductivity and Dielectric Constant of $\text{La}_2\text{CuO}_{4+y}$ near the Insulator-Metal Transition**, *Phys. Rev. Lett.* 63, 2307, (1989), C.Y. Chen, N.W. Preyer, P.J. Picone, M.A. Kastner, H.P. Jenssen, D.R. Gabbe, A. Cassanho and R.J. Birgeneau. Précis in *Physica C 162 - 164*, 1031, (1989).
231. **X-ray Diffraction Study of the Structure of Xenon Multilayers on Single Crystal Graphite**, *Z. Phys. B* 77, 413, (1989), Hawoong Hong and R.J. Birgeneau.
232. **The Richtmyer Memorial Lecture (January 1989): Novel Magnetic Phenomena and High-Temperature Superconductivity in Lamellar Copper Oxides**, *Am. J. Phys.* 58, 28, (1990), R.J. Birgeneau.
233. **Magnetoresistance and the Spin-Flop Transition in Single-Crystal $\text{La}_2\text{CuO}_{4+y}$** , *Phys. Rev. B* 41, 231, (1990), T. Thio, C.Y. Chen, B.S. Freer, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone, N.W. Preyer and R.J. Birgeneau; Précis in *Physica C 162-164*, 1301, (1989).
234. **Hopping Conductivity and Magnetic Transitions of the Cu^{2+} Spins in Single-Crystal $\text{La}_2\text{CuO}_{4+y}$** , *Hopping and Related Phenomena*, edited by Hellmut Fritzsche and Michael Pollak (World Scientific, Singapore, 1990) pp. 61-76, T. Thio, R.J. Birgeneau, C.Y. Chen, B.S. Freer, D.R. Gabbe, H.P. Jenssen, M.A. Kastner, P.J. Picone and N.W. Preyer.
235. **Spin Correlations in the Two-Dimensional $S = 1$ Heisenberg Antiferromagnet**, *Phys. Rev. B* 41, 2514, (1990), R.J. Birgeneau.
236. **Muon Spin Relaxation and Neutron Scattering Studies of Magnetism in Single Crystal $\text{La}_{1.94}\text{Sr}_{0.06}\text{CuO}_4$** , *Phys. Rev. B* 41, 8866, (1990), B.J. Sternlieb, G.M. Luke, Y.J. Uemura, T.M. Riseman, J.H. Brewer, P.H. Gehring, K. Yamada, Y. Hidaka, T. Murakami, T.R. Thurston and R.J. Birgeneau.
237. **Antiferromagnetic Spin Correlations in $(\text{Nd,Pr})_{2-x}\text{Ce}_x\text{CuO}_4$** , *Phys. Rev. Lett.* 65, 263, (1990), T.R. Thurston, M. Matsuda, K. Kakurai, K. Yamada, Y. Endoh, R.J. Birgeneau, P.M. Gehring, Y. Hidaka, M.A. Kastner, T. Murakami and G. Shirane.
238. **Three-Dimensional Magnetic Structures and Rare-Earth Magnetic Ordering in Nd_2CuO_4 and Pr_2CuO_4** , *Phys. Rev. B* 42, 10098, (1990), M. Matsuda, K. Yamada, K. Kakurai, H. Kadowaki, T.R. Thurston, Y. Endoh, Y. Hidaka, R.J. Birgeneau, M.A. Kastner, P.M. Gehring, A.H. Moudden and G. Shirane.
239. **Determination of the Energy Gap for Charged Excitations in Insulating La_2CuO_4** , *Phys. Rev. B* 42, 10800, (1990), T. Thio, R.J. Birgeneau, A. Cassanho and M.A. Kastner.
240. **Magnetic Phase Transitions and Spin Correlations in Cuprous Superconductors and Their Progenitors**, *J. Magn. Magn. Mat.* 90 & 91, 602, (1990), Y. Endoh, K. Kakurai, M. Matsuda, T.R. Thurston, K. Yamada, Y. Hidaka, R.J. Birgeneau and G. Shirane.

241. **Frequency and Magnetic-Field Dependence of the Dielectric Constant and Conductivity of La_2CuO_4** , Phys. Rev. B *43*, 392, (1991), C.Y. Chen, R.J. Birgeneau, M.A. Kastner, N.W. Preyer and T. Thio.
242. **Synchrotron X-ray Study of Dimensional Crossover in Solid Phase Smectic Liquid-Crystal Films**, Phys. Rev. B *43*, 842, (1991), D.Y. Noh, J.D. Brock, J.D. Fossum, J.P. Hill, W.J. Nuttall, J.D. Litster and R.J. Birgeneau.
243. **Synchrotron X-ray Diffraction Study of the Disordering of the Ge(111) Surface at High Temperatures**, Phys. Rev. Lett. *66*, 2002, (1991), A. Mak, K.W. Evans-Lutterodt, K. Blum, D.Y. Noh, J.D. Brock, G.A. Held and R.J. Birgeneau.
244. **Transition to Long-Range Order in the Three-Dimensional Random-Field Ising Model**, Phys. Rev. Lett. *66*, 3281, (1991), J.P. Hill, T.R. Thurston, R.W. Erwin, M.J. Ramstad and R.J. Birgeneau.
245. **Isotropic Negative Magnetoresistance in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4+y}$** , Phys. Rev. B *44*, 407, (1991), N.W. Preyer, M.A. Kastner, C.Y. Chen, R.J. Birgeneau and Y. Hidaka.
246. **Effects of Random Fields on Bicritical Phase Diagrams in Two and Three Dimensions**, Physica A *177*, 58, (1991), R.J. Birgeneau, A. Aharony, R.A. Cowley, J.P. Hill, R.A. Pelcovits, G. Shirane and T.R. Thurston.
247. **Scaling Behavior of the Generalized Susceptibility in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4+y}$** , Phys. Rev. Lett. *67*, 1930, (1991), B. Keimer, R.J. Birgeneau, A. Cassanho, Y. Endoh, R.W. Erwin, M.A. Kastner and G. Shirane.
248. **Evidence for Two-Step Disordering of the Au(110) 1×2 Reconstructed Surface**, Surface Sci. *250*, 8, (1991), D.T. Keane, P.A. Bancel, J.L. Jordan-Sweet, G.A. Held, A. Mak and R.J. Birgeneau.
249. **Spin Correlations in High-Temperature Superconductors**, Physica B *174*, 330, (1991), Y. Endoh, K. Yamada, K. Kakurai, M. Matsuda, K. Nakajima, R.J. Birgeneau, M.A. Kastner, B. Keimer, G. Shirane and T.R. Thurston.
250. **Long-Range Coherence and Macroscopic Phase Separation of Steps on Vicinal Si(111)**, Phys. Rev. B *44*, 10969, (1991), D.Y. Noh, K.I. Blum, M.J. Ramstad and R.J. Birgeneau.
251. **Structure and Phase Transitions of Ge(111) and Si(111) Surfaces at High Temperatures**, Surface X-ray and Neutron Scattering, Springer Proceedings in Physics, Vol. 61, edited by H. Zabel and I.K. Robinson (Springer-Verlag 1992) pgs. 27-31.
252. **Static and Dynamic Spin Fluctuations in the Spin Glass Regime in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4+y}$** , Physica *180 & 181*, 15, (1992), R.J. Birgeneau, N. Belk, Y. Endoh, R.W. Erwin, M.A. Kastner, B. Keimer and G. Shirane.
253. **Néel Transition and Sublattice Magnetization of Pure and Doped La_2CuO_4** , Phys. Rev. B *45*, 7430, (1992), B. Keimer, A. Aharony, A. Auerbach, R.J. Birgeneau, A. Cassanho, Y. Endoh, R.W. Erwin, M.A. Kastner and G. Shirane.
254. **Magnetic Order, Spin Correlations and Superconductivity in Single-Crystal $\text{Nd}_{1.85}\text{Ce}_{0.15}\text{CuO}_{4+\delta}$** , Phys. Rev. B *45*, 12548, (1992), M. Matsuda, Y. Endoh, K. Yamada, H. Kojima, I. Tanaka, R.J. Birgeneau, M.A. Kastner and G. Shirane.

- 255. Temperature Scaling of the Integrated Dynamical Susceptibility in $\text{YBa}_2\text{Cu}_3\text{O}_{6.5}$ ($T_c = 50 \text{ K}$),** *Z. Phys. B* 87, 15, (1992), R.J. Birgeneau, R.W. Erwin, P.M. Gehring, M.A. Kastner, B. Keimer, M. Sato, S. Shamoto, G. Shirane and J. Tranquada.
- 256. Field and Hall Effects in Semiconducting $\text{YBa}_2\text{Cu}_3\text{O}_{6+\delta}$,** *Phys. Rev. B* 46, 520, (1992), A. Levy, J.P. Falck, M.A. Kastner, R.J. Birgeneau, A.T. Fiory, A.F. Hebard, W.J. Gallagher, A.W. Kleinsasser and A.C. Anderson.
- 257. Charge-Transfer Spectrum and Its Temperature Dependence in La_2CuO_4 ,** *Phys. Rev. Lett.* 69, 1109, (1992), J.P. Falck, A. Levy, M.A. Kastner and R.J. Birgeneau.
- 258. Low Energy Incommensurate Spin Excitations in Superconducting $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$,** *Phys. Rev. B* 46, 9128, (1992), T.R. Thurston, P.M. Gehring, G. Shirane, R.J. Birgeneau, M.A. Kastner, Y. Endoh, M. Matsuda, K. Yamada, H. Kojima and I. Tanaka.
- 259. Magnetic Excitations in Pure, Lightly Doped and Weakly Metallic La_2CuO_4 ,** *Phys. Rev. B* 46, 14034, (1992), B. Keimer, N. Belk, R.J. Birgeneau, A. Cassanho, C.Y. Chen, M. Greven, M.A. Kastner, A. Aharony, Y. Endoh, R.W. Erwin and G. Shirane.
- 260. Spin Correlations in High Temperature Superconductors of "214" Cuprate Oxides,** *JJAP Series 7 "Mechanisms of Superconductivity"* 174-177, (1992), Y. Endoh, K. Yamada, M. Matsuda, K. Nakajima, K. Kuroda, Y. Hidaka, I. Tanaka, H. Kojima, R.J. Birgeneau, M.A. Kastner, B. Keimer, G. Shirane and T.R. Thurston.
- 261. Low Energy Spin Fluctuations in $\text{La}_{2-x}\text{Sr}_x\text{Cu}_{1-y}\text{Zn}_y\text{O}_4$ ($x=0.14$, $y=0.012$),** *J. Phys. Soc. Japan Lett.* 62, 443, (1993), M. Matsuda, R.J. Birgeneau, H. Chou, Y. Endoh, M.A. Kastner, H. Kojima, K. Kuroda, G. Shirane, I. Tanaka and K. Yamada.
- 262. Nonasymptotic Critical 3D-XY Behavior for the Nematic-Smectic- A_1 Liquid Crystal Transition,** *Z. Phys. B* 90, 357, (1993), G. Nounesis, M.J. Young, K.I. Blum, C.W. Garland and R.J. Birgeneau.
- 263. Critical Behavior at Nematic-Smectic- A_1 Phase Transitions I: High Resolution X-ray Scattering and Calorimetric Study of DBgONO_2 ,** *Phys. Rev. E* 47, 1910, (1993), G. Nounesis, K.I. Blum, M.J. Young, C.W. Garland and R.J. Birgeneau.
- 264. Critical Behavior at Nematic-Smectic- A_1 Phase Transitions II: Preasymptotic 3D-XY Analysis of X-ray and C_p Data,** *Phys. Rev. E* 47, 1918, (1993), C.W. Garland, G. Nounesis, M.J. Young and R.J. Birgeneau.
- 265. Dynamic Spin Properties of $\text{La}_{1.98}\text{Sr}_{0.02}\text{CuO}_4$,** *J. Phys. Soc. Jpn.* 62, 1702, (1993), M. Matsuda, R.J. Birgeneau, Y. Endoh, Y. Hidaka, M.A. Kastner, K. Nakajima, G. Shirane, T.R. Thurston and K. Yamada.

266. **Loss of Long Range Order in the 3D Random Field Ising Model**, Phys. Rev. Lett. 70 3655, (1993), J.P. Hill, Q. Feng, R.J. Birgeneau and T.R. Thurston.
267. **Soft Phonon Behavior and Magnetism at the Low Temperature Structural Phase Transition of $\text{La}_{1.65}\text{Nd}_{0.35}\text{CuO}_4$** , Z. Phys. B 91, 373, (1993), B. Keimer, R.J. Birgeneau, A. Cassanho, Y. Endoh, M. Greven, M.A. Kastner and G. Shirane.
268. **Faceting, Roughness and Step-disordering of Vicinal Si(111) Surfaces: An X-Ray Scattering Study**, Phys. Rev. B 48, 1612, (1993), D.Y. Noh, K.I. Blum and M.J. Ramstad and R.J. Birgeneau.
269. **Optical Excitation of Polaronic Impurities in $\text{La}_2\text{CuO}_{4+y}$** , Phys. Rev. B, 48, 4043, (1993), J.P. Falck, A. Levy, M.A. Kastner and R.J. Birgeneau.
270. **Critical Behavior at Chiral Melting: Disordering of the Si(113) (3×1) Reconstruction**, Phys. Rev. Lett. 71, 750, (1993), D.L. Abernathy, R.J. Birgeneau, K.I. Blum and S.G.J. Mochrie.
271. **Mid-Infrared Optical Absorption in Undoped Lamellar Copper Oxides**, Phys. Rev. Lett., 71, 1621, (1993), J.D. Perkins, J.M. Graybeal, M.A. Kastner, R.J. Birgeneau, J.P. Falck and M. Greven; precis in Physica B 194-196, 1533, (1994).
272. **Pinned and Unpinned Step Dynamics on Vicinal Silver (110) Surfaces**, Phys. Rev. B 48, 8458, (1993), G.A. Held, D.M. Goodstein, R.M. Feenstra, M.J. Ramstad, D.Y. Noh and R.J. Birgeneau.
273. **Synchrotron X-ray Diffraction Study of the Structural Phase Behaviour of Multilayer Xenon on Single Crystal Graphite**, J. Phys. Condensed Matter 5, 8159, (1993), W.J. Nuttall, K.P. Fahey, M.J. Young, B. Keimer, R.J. Birgeneau and H. Suematsu.
274. **Magnetic X-ray Scattering Study of Random Field Effects in $\text{Mn}_{0.75}\text{Zn}_{0.25}\text{F}_2$** , Z. Phys. B. 92, 284, (1993), J.P. Hill, Q. Feng, R.J. Birgeneau and T.R. Thurston.
275. **The Bicritical Phase Diagram of Two-Dimensional Antiferromagnets with and without Random Fields**, Z. Phys. B. 93, 5, (1993), R.A. Cowley, A. Aharony, R.J. Birgeneau, R.A. Pelcovits, G. Shirane and T.R. Thurston.
276. **D.C. Current Dependent Faceting of Vicinal Si(111)**, Europhysics Letters 24, 653, (1993), M.J. Ramstad, R.J. Birgeneau, K.I. Blum, D.Y. Noh, B.O. Wells and M.J. Young.
277. **Spin Fluctuations in Superconducting $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$** , Phys. Rev. B 49, 6958, (1994), M. Matsuda, K. Yamada, Y. Endoh, T.R. Thurston, G. Shirane, R.J. Birgeneau, M.A. Kastner, I. Tanaka and H. Kojima.

- 278. Spin Correlations in the 2D Heisenberg Antiferromagnet: $\text{Sr}_2\text{CuO}_2\text{Cl}_2$, Monte Carlo and Theory**, Phys. Rev. Lett. *72*, 1096, (1994), M. Greven, R.J. Birgeneau, Y. Endoh, M.A. Kastner, B. Keimer, M. Matsuda, G. Shirane and T.R. Thurston; precis in Physica B *199 & 200*, 742, (1994).
- 279. Synchrotron X-ray Scattering Study of the Pressure Melting of near-Monolayer Xenon on Single Crystal Graphite at 140K**, Surf. Science *307-309*, 768, (1994), W.J. Nuttall, D.Y. Noh, B.O. Wells and R.J. Birgeneau.
- 280. Chiral Melting of the Si(113) (3X1) Reconstruction**, Phys. Rev. B, *49*, 2691, (1994), D.L. Abernathy, S. Song, K.I. Blum, R.J. Birgeneau and S.G.J. Mochrie.
- 281. Electronic Excitations in Undoped and Lightly Oxygen Doped $\text{La}_2\text{CuO}_{4+y}$** , to appear in Proceedings of the 2nd Workshop on Phase Separation in Cuprate Superconductors, Cottbus-Germany, September 4-10, 1993 (Springer-Verlag), J.P. Falck, J.D. Perkins, A. Levy, M.A. Kastner, J.M. Graybeal and R.J. Birgeneau.
- 282. Critical Behavior of the Second Harmonic in a Density Wave System**, Phys. Rev. Lett., *72*, 376, (1994), Lei Wu, M.J. Young, Y. Shao, C.W. Garland, R.J. Birgeneau and G. Heppke.
- 283. Spin Fluctuations in Insulating, Weakly Metallic and Superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Physica B, *197*, 158, (1994), G. Shirane, R.J. Birgeneau, Y. Endoh and M.A. Kastner.
- 284. Mid-infrared Electroreflectance in $\text{La}_2\text{CuO}_{4+y}$** , Phys. Rev. B *49*, 6246, (1994), J.P. Falck, J.D. Perkins, A. Levy, M.A. Kastner, J.M. Graybeal and R.J. Birgeneau.
- 285. X-ray Diffraction Study of the Smectic- \tilde{A} Fluid Antiphase and its Transitions to Smectic- A_1 and Smectic- A_2 Phases**, Phys. Review E *50*, 368, (1994), M.J. Young, Lei Wu, G. Nounesis, C.W. Garland and R.J. Birgeneau.
- 286. Thermal Contraction at the Spin-Peierls Transition in CuGeO_3** , Phys. Rev. B. *50*, 12606, (1994), with Q.J. Harris, Q. Feng, R.J. Birgeneau, K. Hirota, K. Kakurae, J.E. Lorenzo, J.M. Tranquada, G. Shirane, M. Hase, K. Uchinokura, K. Kojima, I. Tanaka, Y. Shibuya.
- 287. E Versus k Relations and Many Body Effects in the Model Insulating Copper Oxide $\text{Sr}_2\text{CuO}_2\text{Cl}_2$** , Phys. Rev. Lett., *74*, 964, (1995), B.O. Wells, Z.X. Shen, A. Matsuura, D.M. King, M.A. Kastner, M. Greven and R.J. Birgeneau.
- 288. Comparison of strontium-induced and oxygen-induced holes in La_2CuO_4** , Phys. Rev. B., *51*, 3671, (1995), C.Y. Chen, E.C. Branlund, C. Bae, K. Yang, M.A. Kastner, A. Cassanho and R.J. Birgeneau.

- 289. Neutron Scattering Study of the Two-Dimensional Spin $S=1/2$ Square-Lattice Heisenberg Antiferromagnet $\text{Sr}_2\text{CuO}_2\text{Cl}_2$** , *Z. Physics B* *96*, 465, (1995), M. Greven, R.J. Birgeneau, Y. Endoh, M.A. Kastner, M. Matsuda and G. Shirane.
- 290. Spin Dynamics and Spin Correlations in the Spin $S=1$ Two-Dimensional Square-Lattice Heisenberg Antiferromagnet La_2NiO_4** , *Z. Physics B.* *96*, 479, (1995), K. Nakajima, K. Yamada, S. Hosoya, Y. Endoh, M. Greven and R.J. Birgeneau.
- 291. Isothermal Melting of Near-Monolayer Xenon on Single Crystal Graphitic**, *Journal of Physics: Cond. Matter*, *7*, 4337, (1995), W. Nuttall, D.Y. Noh, B. Wells and R.J. Birgeneau.
- 292. Hexatic Order in Thin Smectic F. Liquid Crystal Films**, *Phys. Rev. E.*, *51*, 5797, (1995), Q.J. Harris, D.Y. Noh, D.A. Turnbull and R.J. Birgeneau.
- 293. Domain growth in the three-dimensional random-field Ising magnet $\text{Fe}_{0.5}\text{Zn}_{0.5}\text{F}_2$** , *Phys. Rev. B.* *51*, 188, (1995), Q. Feng, R.J. Birgeneau and J.P. Hill.
- 294. Critical Behavior of the Structure Factor for Higher Harmonics in Density Wave Systems**, *Phys. Rev. Lett.*, *74*, 5064, (1995), A. Aharony, R.J. Birgeneau, C.W. Garland, Y.J. Kim, V.V. Lebedev, R.R. Netz and M.J. Young.
- 295. Spin Dependence of Correlations in Two-Dimensional Quantum Heisenberg Antiferromagnets**, *Phys. Rev. Lett.* *75*, 938, (1995), N. Elstner, A. Sokol, R.R.P. Singh M. Greven and R.J. Birgeneau.
- 296. X-ray and Neutron Scattering, Magnetization and Heat Capacity Study of the 3D Random Field Ising Model**, *Phys. Rev. Lett.* *75*, 1198, (1995), R.J. Birgeneau, Q. Feng, Q.J. Harris, J.P. Hill, A.P. Ramirez and T.R. Thurston.
- 297. Direct Observation of a Magnetic Gap in Superconducting $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ ($T_c=37.3\text{K}$)**, *Phys. Rev. Lett.* *75*, 1626, (1995), K. Yamada, S. Wakimoto, G. Shirane, C.H. Lee, M.A. Kastner, S. Hosoya, M. Greven, Y. Endoh and R.J. Birgeneau.
- 298. Spin Glass Behavior in $\text{La}_{1.96}\text{Sr}_{0.04}\text{CuO}_4$** , *Phys. Rev. Lett.* *75*, 2204, (1995), F.C. Chou, N.R. Belk, M.A. Kastner, R.J. Birgeneau and A. Aharony.
- 299. Infrared optical excitations in La_2NiO_4** , *Phys. Rev. B.*, *52*, 9863, (1995), J.D. Perkins, D.S. Kleinberg, M.A. Kastner, R.J. Birgeneau, Y. Endoh, K. Yamada and S. Hosoya.
- 300. Lattice-dynamics and spin-excitations in the spin-Peierls compound CuGeO_3** , *Phys. B. Cond. Matter*, *213-214*, 284, (1995), K. Hirota, R.J. Birgeneau, M. Hase, H. Kojima, J.E. Lorenzo, Y. Shibuya, G. Shirane, I. Tanaka, J.M. Tranquada and K. Uchinokura.

- 301. Characterization of the structural and magnetic fluctuations near the spin-Peierls transition in CuGeO_3** , Phys. Rev. B. 52, 15412, (1995), K. Hirota, G. Shirane, Q.J. Harris, Q. Feng, R.J. Birgeneau, M. Hase and K. Uchinokura.
- 302. Large length scale fluctuations at the spin-Peierls transition in CuGeO_3** , Phys. Rev. B, 52, 15420, (1995), Q.J. Harris, Q. Feng, R.J. Birgeneau, K. Hirota, G. Shirane, M. Hase and K. Uchinokura.
- 303. Band Mapping of the Model Insulator $\text{Sr}_2\text{CuO}_2\text{Cl}_2$ - Dispersion of a Single Hole in an Antiferromagnetic Background**, J. Phys. Chem. Solids, 56, 1871, (1995), B.O. Wells, Z.-X. Shen, A. Matsuura, D.M. King, M.A. Kastner, M. Greven and R.J. Birgeneau.
- 304. Magnetism and Magnetic Fluctuations in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ for $x=0$ (2D Antiferromagnet), 0.04 (3D Spin Glass) and $x=0.15$ (Superconductor)**, J. Phys. Chem. Solids, 56, 1913, (1995), R.J. Birgeneau, A. Aharony, N.R. Belk, F.C. Chou, Y. Endoh, M. Greven, S. Hosoya, M.A. Kastner, C.H. Lee, Y.S. Lee, G. Shirane, S. Wakimoto, B.O. Wells and K. Yamada.
- 305. Intercalation and Staging Behavior in Super-Oxygenated $\text{La}_2\text{CuO}_{4+\delta}$** , Z. Phys. B., 100, 535, (1996), B.O. Well, R.J. Birgeneau, F.C. Chou, Y. Endoh, D.C. Johnston, M.A. Kastner, Y.S. Lee, G. Shirane, J.M. Tranquada and K. Yamada.
- 306. Neutron-Scattering Study of Magnetism in Single-Crystal $\text{Cu}_{1-x}\text{Zn}_x\text{GeO}_3$** , J. Phys. Soc. Jpn., 65, 1392, (1996), M. Hase, K. Uchinokura, R.J. Birgeneau, K. Hirota and G. Shirane.
- 307. Optical studies of magnons, excitons and polarons in CuO_2 -layer compounds**, SPIE, 2696, 45, (1996), M. Kastner and R.J. Birgeneau.
- 308. Phase Transition Behavior in the Random Field Antiferromagnet $\text{Fe}_{0.5}\text{Zn}_{0.5}\text{F}_2$** , Phys. Rev. B. 55, 356, (1997), J.P. Hill, Q. Feng, Q.J. Harris, R.J. Birgeneau, A.P. Ramirez and A. Cassanho.
- 309. Phase Separation and Staging Behavior in $\text{La}_2\text{CuO}_{4+\delta}$** , 10th Anniversary HTS Workshop on Physics, Materials and Applications, Houston, TX, pg. 421, (1996), R.J. Birgeneau, F.C. Chou, Y. Endoh, M.A. Kastner, Y.S. Lee, G. Shirane, J.M. Tranquada, B.O. Wells and K. Yamada.
- 310. A Monte Carlo Study of Correlations in Quantum Spin Ladders**, Phys. Rev. Lett. 77, 1865, (1996), M. Greven, R.J. Birgeneau and U.J. Wiese.
- 311. Phase Transition Behavior in the Random-Field Antiferromagnet $\text{Fe}_{0.5}\text{Zn}_{0.5}\text{F}_2$** , Phys. Rev. B. 55, 356, (1997), J.P. Hill, Q. Feng, Q.J. Harris, R.J. Birgeneau, A.P. Ramimerz and A. Cassanho.

- 312. Neutron and x-ray scattering studies of field-cooled ordering in the three-dimensional random-field Ising model**, Phys. Rev. B., *55*, 370, (1997), Q. Feng, Q.J. Harris, R.J. Birgeneau and J.P. Hill.
- 313. Random Fields and random anisotropies in the mixed Ising-XY magnet $\text{Fe}_x\text{Co}_{1-x}\text{TiO}_3$** , Phys. Rev. Lett. *78*, 346, (1997), Q.J. Harris, Q. Feng, Y.S. Lee, R.J. Birgeneau and A. Ito.
- 314. A Synchrotron X-ray Study of the Phases and Phase Transitions in the the mixed Ising-XY magnet $\text{Fe}_x\text{Co}_{1-x}\text{TiO}_3$** , Z. Phys. B., *102*, 163, (1997), Q.J. Harris, Q. Feng, Y.S. Lee, Y.J. Kim, R.J. Birgeneau and A. Ito.
- 315. Sr impurity effects on the magnetic correlations of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B, *55*, 6360, (1997), R.J. Gooding, N.M. Salem, R.J. Birgeneau and F.C. Chou.
- 316. The Effect of Sr Impurity Disorder on the Magnetic and Transport Properties of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$, $0.02 < x < 0.05$** , , 10th Anniversary HTS Workshop on Physics, Materials and Applications, Houston, TX, pg. 322, (1996), R.J. Gooding, N.M. Salem, R.J. Birgeneau and F.C. Chou.
- 317. Structures and Incommensurate Spin Excitations in Excess Oxygen-Doped $\text{La}_2\text{CuO}_{4+y}$** Physica B., *237-238*, 84, (1997), R.J. Birgeneau, R.J. Christianson, Y. Endoh, M.A. Kastner, Y.S. Lee, G. Shirane, B.O. Wells and K. Yamada.
- 318. Ferromagnetic Moment and Spin Flop Transitions in Tetragonal Antiferromagnetic $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$** , Phys. Rev. Lett. *78*, 535, (1997), F.C. Chou, A. Aharony, R.J. Birgeneau, O. Entin-Wohlman, M. Greven, A.B. Harris, M.A. Kastner, Y.J. Kim, D.S. Kleinberg, Y.S. Lee and Q. Zhu.
- 319. Structural Phase Transitions and Incommensurate Spin Fluctuations in the $\text{La}_2\text{CuO}_{4+y}$ System**, E. Kaldis et al. (eds), High T_c Superconductivity 1996: Ten Years after the Discovery, 349-370, Kluwer Academic Publishers, (1997), B.O. Wells, Y.S. Lee, M.A. Kastner, R.J. Christianson, F.C. Chou, R.J. Birgeneau, K. Yamada, Y. Endoh and G. Shirane.
- 320. Incommensurate Spin Fluctuations in High Temperature Superconductors**, Science, *277*, 1067, (1997), B.O. Wells, Y.S. Lee, M.A. Kastner, R.J. Christianson, R.J. Birgeneau, K. Yamada, Y. Endoh and G. Shirane.
- 321. Random Fields and Phase Transitions in Model Magnetic Systems**, JMMM, *177-181*, 1-11, (1998), R.J. Birgeneau.
- 322. The Square Lattice Heisenberg Antiferromagnet at Very Large Correlation Lengths**, Phys. Rev. Lett, *80*, 1742, (1998), B.B. Beard, R.J. Birgeneau, M. Greven and U.J. Wiese.

- 323. Doping Dependence of the Spatially Modulated Dynamical Spin Correlations and the Superconducting Transition Temperature in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B, *57*, 6165, (1998), K. Yamada, C.H. Lee, K. Kurahashi, J. Wada, S. Wakimoto, Y. Kimura, S. Ueki, Y. Endoh, S. Hosoya, G. Shirane, R.J. Birgeneau, M. Greven, M.A. Kastner and Y.J. Kim.
- 324. Systematics of the Photoemission Spectral Function of Cuprates: Insulators, Hole and Electron-doped Superconductors**, Phys. Rev. Lett., *80*, 4245, (1998), C. Kim, P.J. White, Z.X. Shen, T. Tohyama, Y. Shibata, S. Maekawa, B.O. Wells, Y.J. Kim, R.J. Birgeneau and M.A. Kastner.
- 325. Electrochemistry and staging in $\text{La}_2\text{CuO}_{4+\delta}$** , Phys. Rev. B, *57*, 13915, (1998), P. Blakeslee, R.J. Birgeneau, F.C. Chou, R. Christianson, M.A. Kastner, Y.S. Lee and B.O. Wells.
- 326. Magnetic, transport and optical properties of monolayer copper oxides**, Rev. of Modern Physics, *70*, 897, (1998), M.A. Kastner, R.J. Birgeneau, G. Shirane and Y. Endoh.
- 327. Monte Carlo Study of Correlations in Quantum Spin Chains at Non-Zero Temperature**, EPJ, *B4*, 291, (1998), Y.J. Kim, M. Greven, U.J. Wiese and R.J. Birgeneau.
- 328. Spin Correlations in the Two-Dimensional Spin-5/2 Heisenberg Antiferromagnet Rb_2MnF_4** , EPJ, *B5*, 15-22, (1998), Y.S. Lee, M. Greven, B.O. Wells, R.J. Birgeneau and G. Shirane.
- 329. Correlations and Neel Order of Randomly Diluted Quantum Spin Ladders**, Phys. Rev. Lett., *81*, 1945, (1998), M. Greven and R.J. Birgeneau.
- 330. Mid-infrared Optical Excitations in Undoped Lamellar Copper Oxides**, Phys. Rev. B, *58*, 9390, (1998), J.D. Perkins, R.J. Birgeneau, J.M. Graybeal, M.A. Kastner and D.S. Kleinberg
- 331. Spin Correlations in an Isotropic Spin-5/2 Two-Dimensional Antiferromagnet**, Phys. Rev. Lett., *82*, 418, (1999), R.L. Leheny, R.J. Christianson, R.J. Birgeneau and R.W. Erwin.
- 332. Neutron Scattering Study of Static Antiferromagnetic Correlations in $\text{La}_{2-x}\text{Sr}_x\text{Cu}_{1-y}\text{Zn}_y\text{O}_4$** , Phys. Rev. B., *59*, 6517, (1999), H. Kimura, K. Hirota, H. Matsushita, K. Yamada, Y. Endoh, S.H. Lee, C. Majkrzak, R. Erwin, G. Shirane, M. Greven, Y. Lee, M. Kastner, and R.J. Birgeneau.
- 333. Neutron Scattering Study of Elastic Magnetic Signals in Superconducting $\text{La}_{1.94}\text{Sr}_{0.06}\text{CuO}_4$** , J. Phys. Chem. Solids *60*, 1079, (1999), S. Wakimoto, K. Yamada, S. Ueki, G. Shirane, Y.S. Lee, S.H. Lee, M.A. Kastner, K. Hitota, P.M. Gehring, Y. Endoh and R.J. Birgeneau.

- 334. Neutron Scattering Study on Electron-Hole Doping Symmetry of high-Tc Superconductivity**, *J. Phys. Chem. Solids*, *60*, 1025, (1999), K. Yamada, K. Kurahashi, Y. Endoh, R.J. Birgeneau and G. Shirane.
- 335. An X-Ray Induced Structural Transition in $\text{La}_{0.875}\text{Sr}_{0.125}\text{MnO}_3$** , *Phys. Rev. B*, *59*, R6581, (1999), V. Kiryukhin, Y.J. Wang, F.C. Chou, M.A. Kastner, and R.J. Birgeneau.
- 336. Instantaneous Spin Correlations in La_2CuO_4** , *Phys. Rev. B.*, *59*, 13788, (1999), R.J. Birgeneau, M. Greven, M.A. Kastner, Y.S. Lee, B.O. Wells, Y. Endoh, K. Yamada and G. Shirane.
- 337. Field Dependent Antiferromagnetism and Ferromagnetism of the Two Copper Sublattices in $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$** , *Phys. Rev. B.*, *59*, 14702, (1999), M.A. Kastner, Amnon Aharony, R.J. Birgeneau, F.C. Chou, O. Entin-Wohlman, M. Greven, A.B. Harris, Y.J. Kim, Y.S. Lee, M.E. Parks and Z. Zhu.
- 338. Observation of Incommensurate Magnetic Correlations at the Lower Critical Concentration for Superconductivity ($x=0.05$) in $\text{La}_2\text{Sr}_x\text{CuO}_4$** , *Phys. Rev. B.*, *60*, R769, (1999), S. Wakimoto, R.J. Birgeneau, Y. Endoh, P.M. Gehring, K. Hirota, M.A. Kastner, S.H. Lee, Y.S. Lee, G. Shirane, S. Ueki and K. Yamada.
- 339. Quantum Monte Carlo Study of Weakly Coupled Spin Ladders**, *Phys. Rev. B.*, *60*, 3294, (1999), Y.J. Kim, R.J. Birgeneau, M.A. Kastner, Y.S. Lee, Y. Endoh, G. Shirane and K. Yamada.
- 340. Neutron Scattering Study of Spin Density Wave Order in the Superconducting State of Excess-Oxygen-Doped $\text{La}_2\text{CuO}_{4+y}$** , *Phys. Rev. B.*, *60*, 3643, (1999), Y.S. Lee, R. J. Birgeneau, M.A. Kastner, Y. Endoh, S. Wakimoto, K. Yamada, R.W. Erwin, S.-H. Lee and G. Shirane.
- 341. Structural Critical Scattering Study of Mg-Doped CuGeO_3** , *Phys. Rev. Lett.*, *83*, 1676, (1999), Y.J. Wang, V. Kiryukhin, R.J. Birgeneau, T. Masuda, I. Tsukada and K. Uchinokura.
- 342. Ordering due to Quantum Fluctuations in $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$** , *Phys. Rev. Lett.*, *83*, 852, (1999), Y.J. Kim, A. Aharony, R.J. Birgeneau, F.C. Chou, O. Entin-Wohlman, R.W. Erwin, M. Greven, A.B. Harris, M.A. Kastner, I. Ya Korenblit, Y.S. Lee and G. Shirane.
- 343. Tricritical to Mean-Field Crossover at the spin-Peierls transition in CuGeO_3** , *Phys. Rev. B.*, *60*, 14816, (1999), R.J. Birgeneau, V. Kiryukhin and Y.J. Wang.
- 344. Direct Observation of a One Dimensional Static Spin Modulation in Insulating $\text{La}_{1.95}\text{Sr}_{0.05}\text{CuO}_4$** , *Phys. Rev. B*, *61*, 3699, (2000), S. Wakimoto, R.J. Birgeneau, M.A. Kastner, Y.S. Lee, R. Erwin, P.M. Gehring, S.H. Lee, M. Fujita, K. Yamada, Y. Endoh, K. Hirota and G. Shirane.

- 345. First order phase transition between dimerized-antiferromagnetic and uniform-antiferromagnetic phases in $\text{Cu}_{1-x}\text{M}_x\text{GeO}_3$** , Phys. Rev. B. *61*, 4103, (2000), T. Masuda, I. Tsukada, K. Uchinokura, Y.J. Wang, V. Kiryukhin and R.J. Birgeneau.
- 346. Freezing of Anisotropic Spin Clusters in $\text{La}_{1.98}\text{Sr}_{0.02}\text{CuO}_4$** , Phys. Rev. B., *61*, 4326, (2000), M. Matsuda, Y.S. Lee, M. Greven, M.A. Kastner, R.J. Birgeneau, K. Yamada, Y. Endoh, P. Boni, S.-H. Lee, S. Wakimoto and G. Shirane.
- 347. Mid-Infrared Spectrum of Dilute Holes in Antiferromagnetic CuO_2 Layers**, J. Phys. Soc. Jpn. *69*, 749, (2000), D.S. Kleinberg, F.C. Chou, R.J. Birgeneau and M.A. Kastner.
- 348. Reentrant Spin-Peierls Transition in Mg-Doped CuGeO_3** , Phys. Rev. B. *61*, 9527, (2000), V. Kiryukhin, Y.J. Wang, S.C. LaMarra, R.J. Birgeneau, T. Masuda, I. Tsukada and K. Uchinokura.
- 349. Energy Spectrum of Spin Fluctuations in Superconducting $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ($0.10 \leq x \leq 0.25$)**, J. Phys. Soc. Jpn., *69*, 396, (2000), C.-Ho Lee, K. Yamada, Y. Endoh, G. Shirane, R.J. Birgeneau, M. Kastner, M. Greven and Y.-J. Kim.
- 350. Incommensurate Geometry of the Elastic Magnetic Peaks in Superconducting $\text{La}_{1.88}\text{Sr}_{0.12}\text{CuO}_4$** , Phys. Rev. B. *61*, 14366, (2000), H. Kimura, H. Matsuhita, K. Hirota, Y. Endoh, K. Yamada, G. Shirane, Y.S. Lee, M.A. Kastner and R.J. Birgeneau.
- 351. Monte Carlo Study of the $S=1/2$ and $S=1$ Heisenberg Antiferromagnet on a Spatially Anisotropic Square Lattice**, Phys. Rev. B. *62*, 6378, (2000), Y.J. Kim and R. J. Birgeneau.
- 352. Static and Dynamic Spin Correlations in the Spin-Glass Phase of Slightly Doped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B. *62*, 9148, (2000), M. Matsuda, M. Fujita, K. Yamada, R.J. Birgeneau, M.A. Kastner, H. Hiraha, Y. Endoh, S. Wakimoto, and G. Shirane.
- 353. X-ray Scattering Study of Two Length Scales in the Critical Fluctuations of CuGeO_3** , Phys. Rev. B. *63*, 052502-1, (2001), Y.J. Wang, Y.-J. Kim, R.J. Christianson, S.C. LaMarra, F.C. Chou and R. J. Birgeneau.
- 354. Magnetic Properties of the $S=1/2$ Quasi-One-Dimensional Antiferromagnet CaCu_2O_3** , Phys. Rev. B. *63*, 14418, (2001), V. Kiryukhin, Y.J. Kim, K.J. Thomas, F.C. Chou, R.W. Erwin, Q. Huang, M.A. Kastner and R. J. Birgeneau.
- 355. Spin Fluctuations in the Underdoped High-Tc Cuprate $\text{La}_{1.93}\text{Sr}_{0.07}\text{CuO}_4$** , J. Phys. Soc. Jpn. *70*, 853, (2001), H. Hiraka, Y. Endoh, M. Fujita, Y.S. Lee, J. Kulda, A. Ivanov and R. J. Birgeneau.

356. **Critical Dynamics of a Spin $-5/2$ 2D Isotropic Antiferromagnet**, Phys Rev B *63*, 140401 (R), (2001), R.J. Christianson, R. L. Leheny, and R. J. Birgeneau.
357. **Critical Spin Dynamics of the 2D Quantum Heisenberg Antiferromagnets: $\text{Sr}_2\text{CuO}_2\text{Cl}_2$ and $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$** , Phys. Rev. Lett. *86*, 3144, (2001), Y.J. Kim, R.J. Birgeneau, F.C. Chou, R.W. Erwin, and M.A. Kastner.
358. **Hole Concentration Dependence of the Magnetic Moment in Superconducting and Insulating $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B, *63*, 172501, (2001) S. Wakimoto, R. J. Birgeneau, Y.S. Lee and G. Shirane.
359. **Neutron Scattering study of $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$** , Phys. Rev. B., *64*, 024435, (2001), Y.J. Kim, R. J. Birgeneau, F.C. Chou, M. Greven, M.A. Kastner, Y.S. Lee, B.O. Wells, A. Aharony, O. Entin-Wohlman, I. Ya Korenblit, A.B. Harris, R. W. Erwin and G. Shirane.
360. **Quantum Fluctuations in the Frustrated Antiferromagnet $\text{Sr}_2\text{Cu}_3\text{O}_4\text{Cl}_2$** , Phys. Rev. B., *64*, 024436, (2001), A.B. Harris, A. Aharony, O. Entin-Wohlman, I.Ya Korenblit, R.J. Birgeneau, and Y.J. Kim.
361. **Direct Observation of the Quantum Energy Gap in $S=1/2$ Tetragonal Cuprate Antiferromagnets**, Eur. Phys. Lett., *54*, 508, (2001), K. Katsumata, M. Hagiwara, Z. Honda, J. Satooka, A. Aharony, R.J. Birgeneau, F.C. Chou, O. Entin-Wohlman, A.B. Harris, M.A. Kastner, Y.J. Kim and Y.S. Lee.
362. **Diagonal Static Spin Correlation in the Low Temperature Orthorhombic *Pccn* Phase of $\text{La}_{1.55}\text{Nd}_{0.4}\text{Sr}_{0.05}\text{CuO}_4$** , Phys Rev. B., *64*, 174505, (2001), S. Wakimoto, J. M. Tranquada, T. Ono, K.M. Kojima, S. Uchida, S.-H. Lee, P.M. Gehring and R.J. Birgeneau.
363. **Electronic Phase Separation in Lightly Doped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys Rev B *65*, 134515 (2002) M. Matsuda, M. Fujita, K. Yamada, R.J. Birgeneau, Y. Endoh and G. Shirane.
364. **Ferroelectric Ordering in the Relaxor $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ as Evidenced by Low-Temperature Phonon Anomalies**, Phys. Rev. B. *65*, 172105 (2002), S. Wakimoto, C. Stock, R.J. Birgeneau, Z.-G. Ye, W. Chen, W.J.L. Buyers, P.M. Gehring and G. Shirane.
365. **Anomalous temperature dependence in the photoemission spectral function of cuprates**, Phys. Rev. B. *65*, 174516-1 C. Kim, F. Ronning, A. Damascelli, D.L. Feng, Z.-X. Shen, B.O. Wells, Y.J. Kim, R. J. Birgeneau, M.A. Kastner, L.L. Miller, H. Eisaki and S. Uchida.
366. **Hydrogen-Bonded Silica Gels Dispersed in a Smectic Liquid Crystal: A Novel Random Field System**, Phys. Rev. E, *65*, 050703(R), (2002), S. Park, R.L. Leheny, R.J. Birgeneau, J.-L. Gallani, C.W. Garland and G.S. Iannacchione.

- 367. Enhancement of Long Range Magnetic Order by a Magnetic Field in Superconducting $\text{La}_2\text{CuO}_{4+y}$** , Phys. Rev. B. 66, 014528 (2002), B. Khaykovich, Y.S. Lee, S. Wakimoto, K.J. Thomas, R. Erwin, S.-H. Lee, M.A. Kastner and R.J. Birgeneau.
- 368. Muon spin relaxation studies of incommensurate magnetism and superconductivity in stage-4 $\text{La}_2\text{CuO}_{4.11}$ and $\text{La}_{1.88}\text{Sr}_{0.12}\text{CuO}_4$** , Phys. Rev. B. 66, 014524 (2002), A.T. Savici, Y. Fudamoto, I. M. Gat, T. Ito, M. I. Larkin, and Y.J. Uemura, G. M. Luke, K.M. Kojima, Y.S. Lee, M. A. Kastner, R. J. Birgeneau, K. Yamada.
- 369. Resonant inelastic x-ray scattering study of charge excitations in La_2CuO_4** , Phys. Rev. Lett. 89, 177003 (2002), Y.J. Kim, J. P. Hill, C.A. Burns, S. Wakimoto, R. J. Birgeneau, D. Casa, T. Gog, C. T. Venkataraman.
- 370. Top-Seeded Melt-Growth of $\text{Yba}_2\text{Cu}_3\text{O}_x$ Crystals for Neutron Diffraction**, Journal of Superconductivity 15, 531 (2002), D.C. Peets, Ruixing Liang, C. Stock, W.J.L. Buyers, Z. Tun, L. Taillefer, R. J. Birgeneau, D.A. Bonn, and W. N. Hardy.
- 371. An X-Ray Scattering Study of the Incommensurate Phase in Mg-doped CuGeO_3** , Phys. Rev. B. Phys.Rev. B. 66, 174105 (2002), R.J. Christianson, Y.J. Wang, S.C. LaMarra, R. J. Birgeneau, V. Kiryukhin, T. Masuda, I. Tsukada, K. Uchinokura, B. Keimer.
- 372. Magnetic field effects and magnetic anisotropy in lightly doped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$** , Phys. Rev. B. 66, 174508 (2002), M. Matsuda, M. Fujita, K. Yamada, R.J. Birgeneau, Y. Endoh, G. Shirane.
- 373. Smectic ordering in liquid crystal – aerosil dispersions I. X-ray scattering**, Phys. Rev. E. 67, 0111708 (2003), R.L. Leheny, S. Park, R. J. Birgeneau, J.-L. Gallani, C.W. Garland, G. S. Iannacchione.
- 374. Smectic ordering in liquid crystal – aerosil dispersions II. Scaling analysis**, Phys. Rev. E. 67, 011709 (2003), G.S. Iannacchione, S. Park, C. Garland, R.J. Birgeneau, R.L. Leheny.
- 375. Effect of a magnetic field on long-range magnetic order in stage-4 and stage-6 superconducting $\text{La}_2\text{CuO}_{4+y}$** , Phys.Rev. B. 67, 054501 (2003), B. Khaykovich, S. Wakimoto, Y.S. Lee, F.C. Chou, P. Vorderwisch, P. Smeibidle, R.W. Erwin, S.-H. Lee, M.A. Kastner, R. J. Birgeneau.
- 376. Effect of quenched random field on a continuous symmetry breaking transition: nematic to smectic-A transition in 80CB-aerosil dispersions.** Phys. Rev. E. 67, 021703, (2003), P.S. Clegg, C. Stock, R. J. Birgeneau, C.W. Garland, A. Roshi, and G.S. Iannacchione.
- 377. X-ray Scattering and Magnetic Susceptibility Study of doped CuGeO_3** , J. Phys. Soc. Jpn. 72, 1544 (2003), Y.J. Wang, Y.J. Kim, R.J. Christianson, S.C. LaMarra, F.C. Chou, T. Matsuda, I. Tsukada, K. Uchinokura, R. J. Birgeneau.

- 378. Effect of a magnetic field on the spin-and charge-density wave order in $\text{La}_{1.45}\text{Nd}_{0.4}\text{Sr}_{0.15}\text{CuO}_4$, *Phys.Rev. B.* 67, 184419 (2003), S. Wakimoto, Y.J. Kim, M. V. Zimmerman, J. M. Tranquada, S.-H. Lee, R.J. Birgeneau, N. Ichikawa, K.M. Kojima, S. Uchida.**
- 379. Spin wave propagation in the domain state of a random field magnet, *Eur. Phys. J. B.* 32, 287 (2003), R.L. Leheny, Y.S. Lee, G. Shirane, R.J. Birgeneau.**
- 380. High-resolution x-ray study of the nematic-smectic-*A* and smectic-*A*-smectic-*C* transitions in liquid-crystal-aerosil gels, *Phys. Rev. E.* 68, 031706, (2003), P.S. Clegg, R.J. Birgeneau, S. Park, C.W. Garland, G.S. Iannacchione, R.L. Leheny, M.E. Neubert.**
- 381. Dynamic Stripes and Resonance in the Superconducting and Normal Phases of $\text{Yb}_2\text{Cu}_3\text{O}_{6.5}$ Ortho-II Superconductor. *Phys. Rev. B.* 69, 014502 (2004), C. Stock, W.J.L. Buyers, R. Liang, D. Peets, Z. Tun, D. Bonn, W.N. Hardy, R.J. Birgeneau.**
- 382. Neutron scattering study of the effects of dopant disorder on the superconductivity and magnetic order in stage-4 $\text{La}_2\text{CuO}_{4+y}$. *Phys. Rev. B.* 69, 020502 (2004), Y.S. Lee, F.C. Chou, A. Tewary, M.A. Kastner, S.H. Lee, R.J. Birgeneau.**
- 383. Universal Static and Dynamic Properties of the Structural Transition in $\text{Pb}(\text{Zn}_{1/3}\text{Nb}_{2/3})\text{O}_3$, *Phys. Rev. B.* 69, 094104 (2004), C. Stock, R. J. Birgeneau, S. Wakimoto, J. S. Gardner, W. Chen, Z.-G. Ye, and G. Shirane.**
- 384. Evolution of the isotropic to nematic phase transition in octyloxycyanobiphenyl+aerosol dispersions. *Phys. Rev. E.* 69, 031703 (2004), A. Roshi, G.S. Iannacchine, P.S. Clegg, R.J. Birgeneau.**
- 385. Thermodynamic properties of excess-oxygen-doped $\text{La}_2\text{CuO}_{4.11}$ near a simultaneous transition to superconductivity and long-range magnetic order. *Phys. Rev. B.* 69, 174506 (2004), G.A. Jorge, M. Jaime, L. Civale, C.D. Batista, B.L. Zink, F. Hellman, B. Khaykovich, M.A. Kastner, Y.S. Lee, R.J. Birgeneau.**
- 386. Direct Relation between the Low-Energy Spin Excitations and Superconductivity of Overdoped High- T_c Superconductors. *Phys. Rev. Lett.* 92, 217004 (2004), S. Wakimoto, H. Zhang, K. Yamada, L. Swainson, Hyunkyung Kim, R.J. Birgeneau.**
- 387. From dynamic stripes to spin-waves: The high-energy inelastic spectrum in superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{6.5}$. *Phys. Rev. B.* (submitted) C. Stock, W.J.L. Buyers, R.A. Cowley, P.S. Clegg, R. Coldea, C.D. Frost, R. Liang, D. Peets, D. Bonn, W.N. Hardy, R.J. Birgeneau.**

Non-Technical Major Addresses and Articles

1. “Research at the Frontiers: What it is, How it Impacts the Economy, and Who will do it,” Perigee Forum on Science and Discovery, Royal Ontario Museum, January 31, 2001.
2. “Dare to Be Great,” Time Magazine (Canada), March 19, 2001.
3. “Basic Research and the Economy,” OPAS-University Form, National Club, May 8, 2001.
4. “Investing in Canadian Prosperity,” The Canadian Club of Toronto, May 14, 2001.
5. “The Impact of Basic Research on the Economy,” York Technology Association, May 23, 2001.
6. “The Role of the Research University in Canada,” CD Howe Institute, September 19, 2001.
7. “Research and Research Universities in Canada,” Rotary Club Address, Royal York Hotel, October 19, 2001.
8. “Academic Freedom is Alive and Well at the University of Toronto,” Toronto Star, October 8, 2001.
9. “Innovation, Research and National Security,” Gairdner Awards Keynote Address, October 25, 2001.
10. Keynote Address. Science Teachers’ Association of Ontario, Constellation Hotel, November 1, 2001.
11. “The Links Between University Research and Economic Success,” Conference Board of Canada, Val David, Quebec, January 18-20, 2002. This address was reported and reproduced in various national media (e.g. “Encouraging Minds to Flourish,” Toronto Star, January 29, 2002; CBC Newsworld interview, February 6, 2002).
12. “The Economic and Strategic Importance of University Research in a Post-9/11 World,” Yale Alumni Address, Toronto Badminton and Racket Club, February 20, 2002.
13. “The Canadian University System,” AAU Address, Canadian Embassy, Washington D.C., April 19, 2002.
14. “Research Universities and the Economy,” The Granite Club, Toronto, May 6, 2002.
15. “The Research Intensive University in Canada: The Role of the University and Basic Research in the New Economy,” Keynote Address, IPD Symposium on Creating Knowledge, Strengthening Nations: the Changing Role of Higher Education, Munk Centre for International Studies, University of Toronto, October 31, 2002.

16. “A University Education that Canadians Deserve,” Empire Club Address, February 6, 2003 (excerpted in National Post, February 7, 2003; and Ottawa Citizen, February 8, 2003; subject of the following articles: Paul Kedrosky, “Let the Best Schools Get Better,” National Post, February 8, 2003; Sarah Schmidt, “Elite Schools Deserve the Most Money: U of T Chief,” National Post, February 7, 2003).
17. “University Education that Canadians Deserve,” Toronto Star, September 16, 2003.
18. “If I were Mayor,” The Globe and Mail, September 17, 2003.
19. “Open Letter to Ontarians,” Toronto Star, September 18, 2003.
20. “The Role of Research Universities in the Economy,” Address to Young Presidents’ Organization, October 6, 2003.
21. “Celebrating Sexual Diversity,” Toronto Star, October 27, 2003.
22. “Great Universities Make Great Cities,” Address to Toronto Board of Trade Young Professionals, First Canadian Place, January 13, 2004.
23. “Building Toronto: The Part We Play,” Innis College, Town Hall, February 25, 2004.
updated July 2004