

PUBLICATIONS - J. B. KETTERSON

Books, Book Chapters, and Review Articles, Reviews

The Physics of Liquid and Solid Helium: Part I

K. H. Bennemann and J. B. Ketterson, Ed. John Wiley & Sons (1976).

The Physics of Liquid and Solid Helium: Part II

K. H. Bennemann and J. B. Ketterson, Ed. John Wiley & Sons (1978).

The Propagation of Sound in Condensed Helium

S. G. Eckstein, Y. Eckstein, J. B. Ketterson and J. H. Vignos

Physical Acoustics, Vol. **6**, Chapter 5, pp. 243-372

W. P. Mason and R. N. Thurston, editors,

Academic Press, New York (1970).

Sound Propagation in Liquid Crystals

K. Miyano and J. B. Ketterson

Physical Acoustics, Ed. by W.P. Mason and R.N. Thurston,

Academic Press, New York (1979).

Artificial Metallic Superlattices

B. Y. Jin and J. B. Ketterson

Adv. in Phys. **38**, 191 (1989).

Ultra Thin Films and Superlattices

S. N. Song and J. B. Ketterson

Materials Science and Technology, Vol. 3; Chapt. 6: "Electronic Properties of Metals and Ceramics"; Ed. K.H.T. Buschow; pg. 457 (1991).

Sound Propagation in Superfluid ^3He

Z. Zhao, S. Adenwalla, B. K. Sarma and J. B. Ketterson

Advances in Physics **41**, 147 (1992).

Sound Propagation and Collective Modes in Superfluid ^3He

B. K. Sarma, J. B. Ketterson, S. Adenwalla and Z. Zhao

Physical Acoustics Vol. **20**, Pg. 107, R.N. Thurston, editor. Academic Press, New York (1992)

Sound Propagation in Heavy Fermion Superconductors

B. K. Sarma, M. Levy, S. Adenwalla and J. B. Ketterson

Physical Acoustics Vol. **20**, Pg. 1601, R.N. Thurston, editor.

Academic Press, New York (1992).

Superconductivity

J. B. Ketterson and S. N. Song

Cambridge University Press, Cambridge, England (1998).

The Physics of Superconductors. Vol. I: Conventional and High T_c Superconductors

K. H. Bennemann and J. B. Ketterson, Editors

Springer-Verlag, Berlin (2002).

The Physics of Superconductors. Vol. II: Superconductivity in Nanostructures, Novel and

High T_c superconductors, Organic Superconductors.

K. H. Bennemann and J. B. Ketterson, Editors

Springer-Verlag, Berlin (2004).

Superconductivity, Conventional and Unconventional Superconductors; Vol 1

K. H. Bennemann and J. B. Ketterson, Ed.
Springer, Berlin (2008).

Superconductivity, Conventional and Unconventional Superconductors; Vol 2
K. H. Bennemann and J. B. Ketterson, Ed.

Springer, Berlin (2008).

History of Superconductivity: Conventional: High Transition Temperature and Novel
Superconductors

K. H. Bennemann and J. B. Ketterson

A chapter in the book: Superconductivity, Conventional and Unconventional
Superconductors; Vol 1, K. H. Bennemann and J. B. Ketterson, Ed.
Springer, Berlin (2008).

Principles of Josephson-Junction Based Quantum Computing

S. E. Shafrinuk and J. B. Ketterson

A chapter in the book: Superconductivity, Conventional and Unconventional
Superconductors; Vol 1, K. H. Bennemann and J. B. Ketterson, Ed.
Springer, Berlin (2008).

BOOK REVIEW: "Introduction to the Theory of Normal Metals" by A.A. Abrikosov

John B. Ketterson

Phys. Today 26, 55 (1973)

Solid State Physics

J. B. Ketterson, Science Year, The World Book Science Annual 1976
(Field Enterprises Educational Corp., Chicago, 1975), pp. 329-332

The de Haas-van Alphen Effect

J. B. Ketterson

McGraw-Hill Encyclopedia of Physics (1982)

Helium

J. B. Ketterson

Colliers Encyclopedia (1992)

DeHass-van Alphen Effect

J. B. Ketterson

McGraw Hill Encyclopedia of Science and Technology (1994)

Journal Publications

Electronic Properties of metals

Ultrasonic Attenuation in Antimony II: de-Haas-van Alphen Oscillations

John B. Ketterson

Phys. Rev. 129, 18 (1963)

de Haas Shubnikov Effect in Antimony

J. Ketterson and Y. Eckstein

Phys. Rev. 132, 1885 (1963)

Observation of Magneto Acoustic Geometric Resonances for Magnetic Field at Arbitrary Directions

Y. Eckstein, J. B. Ketterson and S. G. Eckstein

Phys. Rev. 135, A740 (1964)

Shubnikov-de Haas Effect in Bismuth

Y. Eckstein and J. B. Ketterson

Phys. Rev. 137, A1777 (1965)

Ultrasonic Attenuation and the Fermi Surface of Arsenic

J. B. Ketterson and Y. Eckstein

Phys. Rev. 140, A1355 (1965)

de Haas-van Alphen Effect from both s- and d-bands in Platinum

J. B. Ketterson, M. G. Priestly and J. J. Vuillemin

Phys. Letters 20, 452 (1966)

Ultrasonic Attenuation in Thallium

Y. Eckstein, J. B. Ketterson and M.G. Priestley

Phys. Rev. 148, 586 (1966)

The de Haas-van Alphen Effect and Fermi Surface in Arsenic

M.G. Priestley, L. R. Windmiller, J. B. Ketterson and Y. Eckstein

Phys. Rev. 154, 671 (1967)

Fermi Surface of Magnesium. I. Magnetoacoustic Attenuation

J. B. Ketterson and R. W. Stark

Phys. Rev. 156, 758 (1967)

The Fermi surface of Magnesium from Magnetoacoustic Attenuation

J.B. Ketterson and R.W. Stark

Proceedings of 10th International Conference Low Temperature Physics, Moscow, USSR, 1966,

Invited Paper Vol. III: The Properties of Metals, Paper M94, Publishing House Viniti, Moscow (1967)

The de Haas-van Alphen Effect in Arsenic, M. G. Priestley, L. R. Windmiller, J. B. Ketterson and

Y. Eckstein, Proceedings of 10th International Conference on Low Temperature Physics, Moscow, USSR, 1966. Invited Paper. Vol. III: The Properties of Metals, Paper M65, Publishing House Viniti, Moscow (1967)

Anisotropy and Mass Enhancement of the Cyclotron Effective Mass in Pt

J. B. Ketterson and L. R. Windmiller

Phys. Rev. Letters 20, 321 (1968)

de Haas-van Alphen Effect and Fermi Surface in Pt

L. R. Windmiller and J. B. Ketterson

- Phys. Rev. Letters 20, 324 (1968)
 The de Haas-van Alphen Effect and Fermi Surface in Rhodium
 J. B. Ketterson, L. R. Windmiller and S. Hornfeldt
 Physics Letters 26A, 115 (1968)
- Anisotropy of the Conduction Electron g-Factor in Pt
 L. R. Windmiller and J.B. Ketterson
 Phys. Rev. Letters 21, 1076 (1968)
- Fermi Velocity and Fermi Radius in Platinum
 J. B. Ketterson, L. R. Windmiller, S. Hornfeldt and F. Mueller
 Solid State Comm. 6, 851 (1968)
- Experimental Determination of the Fermi Radius, Velocity, and g Factor in Pd and Pt
 L. R. Windmiller, J. B. Ketterson and S. Hornfeldt
 J. Appl. Phys. 40, 1291 (1969)
- Fourier-Series Representation of the Pt Fermi Surface
 J. B. Ketterson, F. M. Mueller and L. R. Windmiller
 Phys. Rev. 186, 3, 656 (1969)
- g Factor, Effective Mass, and Exchange Splitting in Pure and Cobalt-Doped Pd
 Sven Hornfeldt, J. B. Ketterson and L. R. Windmiller
 Phys. Rev. Letters 23, 1292 (1969)
- Inversion of de Haas-van Alphen Data on Nearly Ellipsoidal Surfaces Application to As and Sb
 J. B. Ketterson and L. R. Windmiller
 Phys. Rev. B1, 463 (1970)
- g Factor and Exchange Splitting in Pure Pd and Pt and Cobalt-Doped Pd
 L. R. Windmiller, J. B. Ketterson and S. Hornfeldt
 J. Appl. Phys. 41, 1232 (1970)
- Pressure Dependence of the Fermi Surface of Noble Metals
 B. Bosacchi, J.B. Ketterson and L.R. Windmiller
 Phys. Rev. B2, 3025 (1970)
- de Haas-van Alphen Effect in Platinum
 J. B. Ketterson and L. R. Windmiller
 Phys. Rev. B2, 4813 (1970)
- The Inversion of de Haas-van Alphen Data: I. Closed Surfaces With Inversion Symmetry
 R. L. Aurbach, J. B. Ketterson, F. M. Mueller and L. R. Windmiller ANL-7659 (1970)
- Equation of State from a Phenomenological Model for the Kondo System La:Ce
 A. S. Edelstein, L. R. Windmiller, J. B. Ketterson, G. W. Crabtree, and S. P. Bowen
 Phys. Rev. Letters 26, 516 (1971)
- de Haas-van Alphen Effect in Palladium
 L. R. Windmiller, J. B. Ketterson and S. Hornfeldt
 Phys. Rev. B3, 4213 (1971)
- Measurements and Inversion of dHvA Data in Gold
 B. Bosacchi, J. B. Ketterson and L. R. Windmiller
 Phys. Rev. B4, 1197 (1971)
- Inversion of dHvA Data on Nearly Ellipsoidal Surfaces
 R. Aurbach, J. B. Ketterson and L. R. Windmiller
The Physics of Semimetals and Narrow Gap Semiconductors, edited by Carter and Bate
 (Pergamon Press - Oxford and New York 1971) pp. 41-55
- Density of States and Numbers of Carriers from the dHvA Effect

S. Hornfeldt, J.B. Ketterson and L.R. Windmiller

"Electron Density of States", Lawrence H. Bennett, editor National Bureau of Standards, Special Publication 323, 785-790 (1971)

Inversion of Fermi Surface Data Using Partial Wave Phase Shifts and Their Derivatives; with an Application to the Noble Metals

Jerry C. Shaw, J. B. Ketterson and L. R. Windmiller

Phys. Rev. B5, 3894 (1972)

Relaxation Time Representation and Dingle Temperature Inversion

B. Bosacchi, J. B. Ketterson and L. R. Windmiller

Phys. Rev. B5, 3816 (1972)

An Equation of State for the Kondo System La:Ce

A. S. Edelstein, L. R. Windmiller, J. B. Ketterson and H. V. Culbert

AIP Conf. Proc., Magnetism and Magnetic Materials - 1971.

Ed. C. D. Graham and J.J. Rhyne, Am. Inst. Phys. 1972, pp. 558-574

Phase Shift Inversion of Fermi Surface Data for Some of the Transition Metals

Jerry C. Shaw, J. B. Ketterson and L. R. Windmiller

Int. J. Quantum Chem. Symp. No. 6, 395 (1972)

de Haas-van Alphen Effect in Iridium

S. Hornfeldt, L. R. Windmiller and J. B. Ketterson

Phys. Rev. B7, 4349 (1973)

Absence of de Haas-van Alphen Spin Splitting Zeros in Au(Fe) at 0.5 K

D. H. Lowndes, G. Crabtree, J. B. Ketterson and L. R. Windmiller

Solid State Commun. 13, 1855 (1973)

The de Haas-van Alphen Effect and The Electronic Structure of the Transition Metals

L. R. Windmiller, S. Hornfeldt, J. Shaw, G. Crabtree and J. B. Ketterson

Low Temp. Phys. -LT 13, K. D. Timmerhaus, W. J. O'Sullivan, E. F. Hammel, Eds. (Plenum Press, N.Y., 1974), pp. 120-130

de Haas-van Alphen Effect in Technetium

A. J. Arko, G. W. Crabtree, S. P. Hornfeldt, J. B. Ketterson and G. Kostorz, and L. R.

Windmiller Low Temp. Phys.-LT 13, K.D. Timmerhuas, W. J. O'Sullivan, E. F. Hammal, Eds. (Plenum Press, N.Y., 1974), pp. 104-108

Phase Shift Analysis of the Iridium

Low Temperature Physics - LT 13

J. C. Shaw, J. B. Ketterson and L. R. Windmiller

Low Temp. Phys.-LT 13, K.D. Timmerhuas, W. J. O'Sullivan, and E.F. Hammel Eds. (Plenum Press, N.Y., 1974), pp. 131-135

de Haas-van Alphen Effect in Platinum

[Phys. Rev. B2, 4813-4838 (1970)-]

J. B. Ketterson and L. R. Windmiller

Selected Papers in Physics No. 61, Fermi Surface of Metal II, Editors S. Tanuma and J. Yamashita (1974), p. 88

Fourier-Series Representation of the Pt Fermi Surface

[Phys. Rev. 186, 656-666 (1969)-]

J. B. Ketterson, F. M. Mueller and L. R. Windmiller

Selected Papers in Physics No. 61, Fermi Surface of Metals II, Editors S. Tanuma and J. Yamashita (1974), p. 114

Fermi Surface of Magnesium. I. Magnetoacoustic Attention

J. B. Ketterson and R. W. Stark [Phys. Rev. 156, 478 (1967)-]

Selected Papers in Physics No. 60, Fermi Surface of Metals I, Editors S. Tanuma and J. Yamashita (1974), p. 135

The Fermi Surface and Electronic Density of States of Molybdenum

D. D. Koelling, F. M. Mueller, A. J. Arko and J. B. Ketterson
Phys. Rev. B10, 4889 (1974)

Parameterization of Transition Metal Fermi Surface Data

J. B. Ketterson, D. D. Koelling, J. C. Shaw and L. R. Windmiller
Phys. Rev. B11, 1447 (1975)

Conduction Electron g-Factor Measurements in Au Using the de Haas-van Alphen Effect

G. W. Crabtree, L. R. Windmiller and J. B. Ketterson
J. Low Temp. Phys. 20, 655 (1975)

The dHvA Effect and the Band Structure of URh₃

A. J. Arko, M. B. Brodsky, G. W. Crabtree, D. Karim, D. D. Koelling, L. R. Windmiller and J. B. Ketterson
Phys. Rev. B12, 4102 (1975)

Large Electron-Phonon Interaction but Low-Temperature Superconductivity in LaB₆

A. J. Arko, G. W. Crabtree, J. B. Ketterson, F. M. Mueller, P. F. Walch L. R. Windmiller, Z. Fisk, R. F. Hoyt, A. C. Mota, R. Viswanathan, D. E. Ellis, A.J . Freeman and J. Rath
Intern. J. Quantum Chem. Symp. No. 9, 569 (1975)

The de Haas-van Alphen Effect and the Fermi Surface of LaB₆

A. J. Arko, G. Crabtree, D. Karim, F. M. Mueller, L. R. Windmiller, J. B. Ketterson and Z. Fisk
Phys. Rev. B13, 5240 (1976)

Measurements of Conduction Electron Scattering in Neutron-Irradiated Copper by the de Haas-van Alphen Effect

Y. K. Chang, A. J. Arko, G.W. Crabtree, J. B. Ketterson, L. R. Windmiller, R. J. Higgins and F. W. Young, Jr.

Fundamental Aspects of Radiation Damage in Metals, Gatlinburg, Tenn., Oct. 5-10, 1975, edited by M. T. Robinson and F. W. Young, Jr. (ERDA, 1976), Vol. **, pp. 846-851

de Haas-van Alphen Effect in URh₃ and UIr₃

A. J. Arko, M. B. Brodsky, G. W. Crabtree, D. Karim, L. R. Windmiller and J. B. Ketterson
Plutonium and Other Actinides, edited by H. Blank and R. Linder (North-Holland publ. Co., 1976) pp. 325-336

Anisotropy of Conduction Electron g-Factor in Au Using the de Haas-van Alphen Effect

G. W. Crabtree, L. R. Windmiller and J. B. Ketterson
AIP Conf. Proc. No. 34 (AIP, N.Y., 1976), pp. 22-24

de Haas-van Alphen Measurements and Phase Shift Analysis of Electronic Scattering Anisotropy in AuGa

D. H. Dye, J. B. Ketterson, D. H. Lowndes, G. W. Crabtree and L. R. Windmiller
J. Low Temp. Phys. 26, 755 (1977)

The Conduction Electron g Factor in Au

G. W. Crabtree, L. R. Windmiller and J. B. Ketterson
J. Low Temp. Phys. 26, 755 (1977)

Conduction-Electron Scattering in Quenched and Annealed Gold

Y. K. Chang, G. W. Crabtree and J. B. Ketterson

Phys. Rev. B 16, 714 (1977)

Experimental Magnetic Form Factor of Platinum Metal

R. Maglic, T. O. Brun, G. P. Felcher, Y. K. Chang and J. B. Ketterson

J. Magnetism and Magnetic Materials 9, 318 (1978)

A de Haas-van Alphen Study of Niobium: Fermi Surface, Cyclotron Effective Masses, and Magnetic Breakdown Effects

D. P. Karim, J. B. Ketterson and G. W. Crabtree

J. Low Temp. Phys. 30, 389 (1978)

The Fermi Surface of Platinum

D. H. Dye, J. B. Ketterson and G. W. Crabtree

J. Low Temp. Phys. 30, 813 (1978)

Fermi Radii, Fermi Velocities, and Many-Body Enhancement in Palladium

G. W. Crabtree, D. H. Dye, J. B. Ketterson, N. B. Sandesara and J. J. Vuillemin

J. de Physique, Colloque C-6, 1095 (1978)

The Fermi Surface of Platinum

D. H. Dye, J. B. Ketterson and G. W. Crabtree

Inst. Phys. Conf. Ser. 39, 70 (1978)

Fermi Surface, Fermi Velocity, and Electron-Phonon Interaction Parameter in Nb

D. H. Dye, D. P. Karim, J. B. Ketterson and G. W. Crabtree

Inst. Phys. Conf. Ser. 39, 683 (1978)

High field de Haas-van Alphen Spectroscopy in Transition Metals

G. W. Crabtree, D. H. Dye, D. P. Karim and J. B. Ketterson

J. Magnetism and Magnetic Materials - 11, 236 (1979)

Anisotropic Many Body Effect in the Quasi Particle Velocity of Nb

G. W. Crabtree, D. H. Dye, D. P. Karim, D. D. Koelling and J. B. Ketterson,

Phys. Rev. Lett. 45, 266 (1980)

Anisotropy of Electron-Phonon Interaction and Superconducting Energy Gap in Niobium

G. W. Crabtree, D. H. Dye, D. P. Karim and J. B. Ketterson in

"Superconductivity in d and f Band Metals", Edited by H. Shul and B. Maple Academic Press,

1980 p 113

Fermi surface and Many Body Enhancements in Pd

D. H. Dye, S. A. Campbell, G. W. Crabtree, J. B. Ketterson, W. B. Sandesara and J. J. Vuillemin

Phys. Rev. B23, 462 (1981)

de Haas-van Alphen Measurements of One-Electron and Many Body Effects in Transition Metals and

Intermetallic Compounds, G. W. Crabtree, W. R. Johanson, S. A. Campbell, D. H. Dye, D. P.

Karim and J. B. Ketterson, Physics of Transition Metals, P. Rhodes, Ed.,

Inst. Phys. Conf. Ser. N. 55, 79 (1981)

Electronic Structure and Many Body Effects in Pd

G. W. Crabtree, D.H. Dye, S. A. Campbell, J. B. Ketterson, J. J. Vuillemin and N. B. Sandesara

Physics of Transition Metals, P. Rhodes, Ed.

Ins. Phys. Conf. Ser. No. 55, 13 (1981)

Anisotropy of the Fermi Surface, Fermi Velocity, Many-Body Enhancement and Superconducting

Energy Gap in Nb

G. W.Crabree, D. H. Dye, D. P. Karim, S. A. Campbell and J. B.Ketterson

Phys. Rev. B 35, 1728 (1987)

Instrumentation and techniques

Instrumentation for Fermi Surface Measurements Using Ultrasonics

J. B. Ketterson and Y. Eckstein

Rev. Sci. Instr. 37, 44 (1966)

Conversion of an Electron Beam Zone Refiner to RF Heating

J. B. Ketterson, J. S. Tait and L. R. Windmiller

J. Crystal Growth 1, 323 (1967)

Techniques and Instrumentation for Measuring the de Hass-van Alphen Effect in Metals

L. R. Windmiller and J. B. Ketterson

Rev. Sci. Instr. 39, 1672 (1968)

Techniques and Instrumentation for Measuring the de Haas-van Alphen Effect in Metals

Rev. Sci. Instr. 39, 1672 (1968)

L. R. Windmiller and J. B. Ketterson

Rev. Sci. Instr. 40, 603 (1969) ERRATUM

Techniques for Measuring Sound Propagation in Liquid ^4He and ^3He - ^4He Solutions

B. M. Abraham, Y. Eckstein, J. B. Ketterson and J. Vignos

Cryogenics 9, 274 (1969)

Dynamic Proton Polarization in Butanol Water Below 1° K

D.A. Hill, J.B. Ketterson, R.C. Miller, Alfred Moretti, R.C. Niemann, L.R. Windmiller,

Akihiko Yokosawa and C.F. Hwang

Phys. Rev. Letters, 23, 460 (1969)

Preparation of Single Crystals of Pt Group Transition Metals and Alloys

S. Hornfeldt, J. B. Ketterson and L. R. Windmiller

J. Crystal Growth 5, 289 (1969)

Heat Capacity of Diluted Cerium Magnesium Nitrate and its Potential for the Production of Very Low Temperatures

B. M. Abraham, O. Brandt, Y. Eckstein, J. B. Ketterson, M. Kuchnir and P. Roach

Phys. Rev. 187, 273 (1969)

Accurate Orientation Method for dHvA Data

F. M. Mueller, L. R. Windmiller and J. B. Ketterson

J. Appl. Phys. 41, 2312 (1970)

Power Supply for Ion Mobility Measurements

J. B. Ketterson, M. Kuchnir and P. R. Roach

Rev. Sci. Instr. 42, 164 (1971)

Indium Seal for Low Temperature Cryostats

M. Kuchnir, M. F. Adam, J. B. Ketterson and P. Roach

Rev. Sci. Instr. 42, 536 (1971)

Copper Wire Thermal Feed-Thru for Use at Low Temperatures

G. W. Crabtree, J. B. Ketterson, M. Kuchnir and P. R. Roach

Rev. Sci. Instr. 43, 346 (1972)

Fast Fourier Transform with an Application to Data Storage in the Nicolet (Fabri-Tek) Model 1070

Signal Averager

L. Windmiller, J. B. Ketterson and J.C. Shaw

Decuscope 11, 34 (1972)

Hydraulically Actuated Valve for Very Low Temperatures

- Pat R. Roach, J. B. Ketterson and M. Kuchnir
Rev. Sci. Instr. 43, 898 (1972)
- Fast Fourier Transform Using the PDP-11
 L. R. Windmiller, J. B. Ketterson and J. C. Shaw
 ANL-7907 (1972)
- Magnetic Field Dependence of the Adiabatic Susceptibility Tensor of Powdered CMN
 B. M. Abraham, J. B. Ketterson and P. R. Roach
*Phys. Rev. B*6, 4675 (1972)
- Influence of Field Inhomogeneity on the de Haas-van Alphen Effect
 S. Hornfeldt, J. B. Ketterson and L. R. Windmiller
J. Phys. E: Sci. Instr. 6, 265 (1973)
- Some Promising Compounds for Adiabatic Demagnetization
 P. R. Roach, B. M. Abraham, J. B. Ketterson, R. Greiner and W. Van Antwerp
J. Low Temp. Phys. 13, 59 (1973)
- Demagnetization Experiments on Some Promising New Compounds for Very Low Temperature Refrigeration
 B. M. Abraham, J. B. Ketterson, P. R. Roach and E. R. Pfieffer
J. Low Temp. Phys. 14, 387 (1974)
- Mechanically Operated Thermal Switches for Use at Ultra-Low Temperatures
 P. R. Roach, J. B. Ketterson, B. M. Abraham, P. D. Roach and J. Monson
Rev. Sci. Instr. 46, 207 (1975)
- Calculation of Cooling of ^3He by Adiabatic Demagnetization of a Paramagnetic Salt
 P. D. Roach, B. M. Abraham, P. R. Roach and J. B. Ketterson
J. Low Temp. Phys. 22, 301 (1976)
- Fiberglass Insert to Liquid Helium Dewar
 S. Y. Shen, W. P. Halperin and J. B. Ketterson
Rev. Sci. Instr. 49, 542 (1978)
- Carbon Powder Magnetization Thermometer for Very Low Temperature
 C. M. Bastuscheck, R. A. Buhrman, B. K. Sarma, D. B. Mast, J. B. Ketterson and W. P. Halperin
*J. de Physique, colloque C*6, 1164 (1978)
- Refrigeration by Adiabatic Demagnetization of Nuclear Spins
 S. Y. Shen, J. B. Ketterson and W. P. Halperin
J. Low Temp. Phys. 31, 193 (1978)
- A Novel Technique for Dynamic Surface Tension and Viscosity Measurements at Liquid-Gas Interfaces
 C. H. Sohl, K. Miyano and J. B. Ketterson
Rev. Sci. Instr. 49 (10), 1464-1469 (October 1978)
- Some Experiments on Powdered PrNi in Contact with Liquid ^3He
 Pat R. Roach, R. A. Webb and J. B. Ketterson
J. Low Temp. Phys. 34, 439 (1979)
- A Wide Range High Sensitivity Film Balance
 B. M. Abraham, K. Miyano, K. Buzard and J. B. Ketterson
Rev. Sci. Instr. 51, 1083 (1980)
- A Versatile Pulsed r. f. Heterodyn Spectrometer
 A. A. V. Gibson, J. R. Owers-Bradley, I. D. Calder, J. B. Ketterson and W. P. Halperin
Rev. Sci. Instr. 52, 1509 (1981)

- Determination of Primary Elastic Constants from Thin Foils Having a Strong Texture
 D. Baral, J. E. Hilliard, J. B. Ketterson and K. Miyano
J. Appl. Phys. 53, 3552 (1982)
- Critical Field Measurements in Superconductors Using A. C. Inductive Techniques
 S. A. Campbell, J. B. Ketterson and G. W. Crabtree
Rev. Sci. Instr. 54, 1191 (1983)
- Centro-Symmetric Technique for Measuring Shear Modulus, Viscosity and Surface Tension of Spread Monolyaers
 B. M. Abraham, K. Miyano, S. Q. Xu and J. B. Ketterson
Rev. Sci. Instr. 54, 213 (1983)
- An Instrument for Measuring the Static and Dynamic Response to Shear at the Air/Water Interface of Insoluble Monolayers: Some New Insights into Two Dimensional Phases
 B. M. Abraham, K. Miyano and J. B. Ketterson
IESC Prod. Res. and Rev. 23, 245 (1984)
- Dual Electron Beam Evaporator for the Preparation of Composition Modulated Structures
 H. Q. Yang, H. K. Wong, J. Q. Zheng, J. B. Ketterson and J. E. Hilliard
J. Vac. Sci. and Tech. A2 1 (1984)
- A Computer Controlled Four Gun Multi-Substrate Sputtering System for Preparation of Composition Modulated Structures
 H. Q. Yang, B. Y. Jin, Y. H. Shen, H. K. Wong, J. E. Hilliard and J. B. Ketterson
Rev. Sci. Instr. 56, 607 (1985)
- New Techniques for Excitation of Bulk and Surface Spin Wave in Ferromagnets
 S. A. Bogacz and J. B. Ketterson
J. Appl. Phys. 58, 1935 (1985)
- A Wide Temperature Range, Hermetically Sealed Langmuir-Blodgett Apparatus
 P. Dutta, K. Halperin, J. B. Ketterson, J. B. Peng, G. Schaps and J. Baker
Thin Solid Films 134, 5 (1985)
- An Apparatus for Making Superlattice Langmuir-Blodgett Films with Atmosphere and Temperature Control, T. Armen, P. Dutta, K. Halperin and J. B. Ketterson
Rev. Sci. Instr., 58, 822 (1987)
- Novel Compressional Cell for Liquid and Solid ^3He Experiments
 Z. Zhao, S. Adenwalla, J. B. Ketterson and B. K. Sarma
Can. J. Phys. 65, 1534 (1987)
- An Apparatus for Making A/B Superlattice Langmuir-Blodgett Films.
 B. Lin, J. B. Peng, P. Dutta, J. B. Ketterson and G. Wong
Rev. Sci. Instrum. 59, 2623 (1988)
- A Novel Technique to Measure the Group Velocity of Sound in Dispersive Media
 Z. Zhao, S. Adenwalla, J. B. Ketterson and B. K. Sarma
IEE Trans. on Ultrasonics, Ferroelect., and Freq. Ctrl. 36, 481 (1989)
- A Compact Constant Current/Constant Voltage Source for Superconducting Junction Characteristics Measurements
 M. Z. Lin, S. N. Song, B. Y. Jin and J. B. Ketterson
Rev. Sci. Instr. 60, (1989)
- Computer-Controlled, Three Electron-Beam-Gun Multi-Substrate Evaporator for the Preparation of Superconducting Thim Films and Superlattices
 X. K. Wang, H. Q. Yang, K. C. Sheng, B. Davis, R. P. H. Chang and J. B. Ketterson

J. Vac. Sci. and Tech. A7, 3208 (1989)

Detection of Ultrasonic Vibrations in Self-Supporting Thin Film Using a Laser Spectrometer

A. Moreau, J. B. Ketterson and J. Huang, Proc. of the IEEE (1989) Ultrasonic Symp., New York, Institute of Electrical and Electronic Engineering

Three Methods for Measuring the Ultrasonic Velocity in Thin Films

A. Moreau and J. B. Ketterson

Materials Science and Engineering A126, 149 (1990)

Sound Velocity Measurements in Thin Films

A. Moreau, S. Adenwalla and J. B. Ketterson, Proc. 1988 Ultrasonics Symp., New York Institute of Electrical and Electronic Engineering, p. 315

A New Method of Measuring Elastic Moduli in Unsupported Thin Films: Application to

Cu-Pd Superlattices. A. Moreau and J.B. Ketterson

J. Appld. Phys. 68, 1622 (1990)

Top loading, very low-temperature, x-band, microwave spectrometer

Rev Sci Instrum 61, 1436 (1990), M. Z. Lin, Z. Zhao, Y. H. Shen, et al.

An Analysis of the Sensitivity of a Surface Shear Instrument

S.S. Feng, R.C. MacDonald, J.B. Ketterson and B.M. Abraham

Langmuir 7, 1815 (1991)

A Miniature X-Ray Compatible Sputtering Chamber for Studying In-Situ High T_c Thin Films Growth

J. Q. Zheng, M. C. Shih, X. K. Wang, S. Williams. P. Dutta, R. P. H. Chang and

J. B. Ketterson

J. Vac. Sci. and Technol. A9, 128 (1991)

Fiber-Optic Detection System for Capillary Waves: An Apparatus for Studying Liquid

Surfaces and Spread Monolayers

T. M. Bohanon, J. M. Mikrut, B. M. Abraham, J. B. Ketterson and P. Dutta

Rev. Sci. Instr. 62 , 2959 (1991)

Detection of Ultrasounds Using a Tunneling Microscope

A. Moreau and J. B. Ketterson

J. Appld. Phys. 72, 861 (1992)

An Apparatus with an Elastic Barrier for Radial Compression of Liquid Supported Monolayers

T. M. Bohanon, J. Mikrut, B. M. Abraham, J. B. Ketterson, S. Jacobson, L. Flosenzier, J. Torkelson and P. Dutta

Rev. Sci. Instr. 63, 1822 (1992)

Characterization of Piezoelectric Crosses with Large Range Scanning

Capability and Applications for Low-Temperature Scanning Tunneling Microscopy, J. A. Helfrich, S. Adenwalla, and J. B. Ketterson.

Rev. Sci. Instr. 66, 4880 (1995)

Apparatus to Measure the Shear Modulus of Langmuir Monolayers

as a Function of Strain, Amplitude, and Frequency

R. S. Ghaskadvi, J. B. Ketterson, R. C. MacDonald and P. Dutta

Rev. Sci. Instr. 68, 1798 (1997).

A Three Gun Sputtering System for the Deposition of Superconductor / Insulator

Multilayers

S. R. Maglic, E. D. Rippert, H. Q. Yang, C. D. Thomas, S. N. Song, M. P. Ulmer and J. B. Ketterson, Rev. Sci. Instr. 68, 127 (1997).

Variable Path Cryogenic Acoustic Interferometer,

D. M. Kucera and J. B. Ketterson.

Rev. Sci. Instr. 69: (12) 4156-4159 (1998).

A Pulser for Medium-Frequency Direct-Current Reactive Sputter-Deposition of Insulators, G. T. Kiehne, M. Z. Lin, G. Wang, W. H. Xiang, H. Cao, and J. B. Ketterson, Rev. Sci Instr. 71, 2560 (2000).

Instrumentation for cryogenic microwave cavity resonance measurements, C. C. Tsai, J. R. Feller, Bimal K. Sarma, and J. B. Ketterson, Rev. Sci. Instrum. 75, 3158 (2004).

Ultrasonic instrumentation for measurements in high magnetic fields. I. Continuous magnetic fields, A. Suslov B. K. Sarma J. Feller, and J. B. Ketterson, Rev. Sci. Instrum. 77 035104 Part 1 (2006)

Ultrasonic instrumentation for measurements in high magnetic fields. II. Pulsed magnetic fields, A. Suslov, B. K. Sarma, J. B. Ketterson, F. Balakirev, A. Migliori, A. Lacerda, Rev. of Sci. Instrum. 77 Art. No. 035105 Part 1 (2006).

Liquid ^4He

Measurements of the Ultrasonic Attenuation in Liquid He-4 at Low Temperatures

B. M. Abraham, Y. Eckstein, J. Ketterson and J. Vignos
Phys. Rev. Letters 16, 1039 (1966)

Sound Propagation in Liquid ^4He

B. M. Abraham, Y. Eckstein, J. B. Ketterson, M. Kuchnir and J. Vignos
Phys. Rev. 181, 347 (1969)

The Three-Phonon Process and the Propagation of Sound in Liquid ^4He

B. M. Abraham, Y. Eckstein, J. Ketterson and M. Kuchnir
Phys. Rev. Letters 19, 690 (1967)

The Attenuation of Sound in Liquid Helium-4 below 1° K

B. Abraham, Y. Eckstein, J. Ketterson and J. Vignos Proceedings of 10th International Conference on Low Temperature Physics, Moscow, USSR, 1966 Vol I: Properties of Liquid Helium, Paper H-38, Pages 299-301, Publishing House Viniti, Moscow (1967)

Velocity of Sound, Density and Gruneisen Constant in Liquid ^4He

B. M. Abraham, Y. Eckstein, J. B. Ketterson, M. Kuchnir and P. R. Roach
Phys. Rev. A1, 250 (1970)

Low Temperature Negative-Ion Mobility in Liquid ^3He

M. Kuchnir, P. R. Roach, and J. B. Ketterson
Phys. Rev. A2, 262 (1970) COMMENT

Sound Velocity, Density and Gruneisen Constant in Liquid ^4He : Comparison of Experiment with Theoretically Calculated Results

Pat R. Roach, J. B. Ketterson and Chia-Wei Woo
Phys. Rev. A2, 543 (1970)

ERRATUM: Velocity of Sound, Density, and Gruneisen Constant in Liquid ^4He
[Phys. Rev. A1, 250 (1970)]

B. M. Abraham, Y. Eckstein, J.B. Ketterson, M. Kuchnir and P. R. Roach
Phys. Rev. A2, 550 (1970)

Negative Ion Transmission Through the ^3He - ^4He Phase Boundary

M. Kuchnir, Pat R. Roach and J. B. Ketterson

- J. Low Temp. Phys. 3, 183 (1970)
 Evidence of Two Vortex-Ring Species in a ^3He - ^4He Solution
 M. Kuchnir, J. B. Ketterson and Pat R. Roach
Phys. Rev. Letters 26, 879 (1971)
- Ion Transmission through the ^3He - ^4He Phase Boundary
 M. Kuchnir, P. R. Roach and J. B. Ketterson
 Proceedings of the 12th International Conference on Low Temperature Physics, Ed. Eizo Kanda,
 Academic Press Japan, Tokyo, 1971
- Low Temperature Ion Mobility in ^3He - ^4He Solutions
 J. B. Ketterson, M. Kuchnir and P.R. Roach
 Proceeding of the 12th International Conference on Low Temperature Physics, Ed. Eizo Kanda,
 Academic Press Japan, Tokyo, 1971, pp. 105-106
- Sound Propagation in Liquid ^4He
 [Phys. Rev. 181, 347-373 (1969)]
 B. M. Abraham, Y. Eckstein, J. B. Ketterson, M. Kuchnir and J. Vignos
 "Series of Selected Papers in Physics", Physical Society of Japan, Vol. 176, 76 (1972)
- Velocity of Sound, Density and Gruneisen Constant in Liquid ^4He
 [Phys. Rev. A1, 250-257 (1970)-]
 B. M. Abraham, Y. Eckstein, J. B. Ketterson, M. Kuchnir and P. R. Roach
 "Series of Selected Papers in Physics", Physical Society of Japan, Vol. 176, 103 (1972)
- Sound Propagation through a Dilute Solution of ^3He - ^4He
 [Phys. Rev. Letters 20, 251-254 (1968)]
 B. M. Abraham, Y. Eckstein, J. B. Ketterson and M. Kuchnir
 "Series of Selected Papers in Physics", Physical Society of Japan, Vol. 176, 205 (1972)
- Ultrasonic Attenuation in Liquid ^4He under Pressure
 Pat R. Roach, J. B. Ketterson and M. Kuchnir
Phys. Rev. A5, 2205 (1972)
- Thermal Expansion of Liquid ^4He Between 0.1 and 0.7 K
 Pat R. Roach, J. B. Ketterson, B. M. Abraham and M. Kuchnir
Phys. Letters 39A, 251 (1972)
- Absence of a Quadratic Term in the ^4He Excitation Spectrum
 Pat R. Roach, J. B. Ketterson, B. M. Abraham and M. Kuchnir
Phys. Rev. Letters 29, 32 (1972)
- Temperature Dependence of the Sound Velocity in Liquid ^4He
 Pat R. Roach, J. B. Ketterson, B. M. Abraham and M. Kuchnir
J. Low Temp. Phys. 9, 105 (1972)
- Sound Velocity in Liquid ^4He Under Pressure
 Pat R. Roach, J. B. Ketterson, B. M. Abraham and M. Kuchnir
J. Low Temp. Phys. 12, 375 (1973)
- Long Wavelength Excitations and the Attenuation of Sound in Liquid ^4He
 J. B. Ketterson, B. M. Abraham and P. R. Roach

Liquid and Solid Helium, Proc. of the European Physical Society Topical Conference, Haifa, July 1-4, 1974, Edited by G.C. Kuper, S.G. Lipson, and M. Reveen (John Wiley & Sons, N.Y., 1975), pp. 3-27

^3He - ^4He Solutions

Fermion-Phonon Interaction: The Attenuation of Sound in a Liquid ^3He - ^4He Solution

B. M. Abraham, Y. Eckstein, J. B. Ketterson and J. H. Vignos
Phys. Rev. Letters 17, 1254 (1966)

Sound Propagation Through a Dilute Solution of ^3He - ^4He

B. M. Abraham, Y. Eckstein, J. B. Ketterson and M. Kuchnir
Phys. Rev. Letters, 20, 6, 251 (1968)

Nonlinear Concentration Dependence of the ^3He - ^4He Sound Velocity

B. M. Abraham, Y. Eckstein and J. B. Ketterson
Phys. Rev. Letters 21, 422 (1968)

Discontinuous Field-Velocity Relation for Vortex Rings in Superfluid Solutions

M. Kuchnir, J. B. Ketterson and P. R. Roach
Phys. Letters A 36A, 287 (1971)

Ion Motion in Dilute ^3He - ^4He Solutions at Ultra Low Temperatures

M. Kuchnir, J. B. Ketterson and P. R. Roach
Phys. Rev. A6, 341 (1972)

Liquid ^3He

Sound Propagation, Density and Viscosity in Liquid ^3He

B.M. Abraham, D. Chung, Y. Eckstein, J.B. Ketterson and P.R. Roach
J. Low Temp. Phys. 6, 521 (1972)

Sound Propagation in Superfluid ^3He Near the Polycritical Point

P. R. Roach, B. M. Abraham, M. Kuchnir and J. B. Ketterson
Phys. Rev. Letters 34, 711 (1975)

Anisotropy of the Propagation of Sound in the A Phase of Superfluid ^3He

M. Kuchnir, J. B. Ketterson and P. R. Roach
J. Low Temp. Phys. 19, 531 (1975)

Anomalous Temperature Dependence of the Positive Ion Mobility in Liquid ^3He

M. Kuchnir, J. B. Ketterson and P. R. Roach
J. Low Temp. Phys. 19, 531 (1975)

Sound Propagation in the B Phase of Superfluid ^3He

P. R. Roach, B. M. Abraham, Paul D. Roach and J. B. Ketterson
Proc. of the 14th Intern. Conf. on Low Temp. Phys., Matti Krusius and Matti Vuori, Eds.
(American Elsevier Publ. Co., N.Y., 1975), Vol. I, p. 88

1 Junctions

Sound Propagation in Normal and Superfluid ^3He

J. B. Ketterson, P. R. Roach, B. M. Abraham and P. D. Roach

Quantum Statistics and Many Body Problems, edited by S.B. Trickey, W.P. Kirk, and J.W. Duffy (Plenum Press, N.Y., 1975), pp. 35-63

Observation of Transverse Zero Sound in Normal ^3He

P. R. Roach and J. B. Ketterson

Phys. Rev. Letters 36, 736 (1976)

Measurements of the Acoustic Shear Impedance of Superfluid ^3He

Pat R. Roach and J. B. Ketterson

J. Low Temp. Phys. 25, 637 (1976)

Mobility of Positive and Negative Ions in Superfluid ^3He

Paul D. Roach, J. B. Ketterson and Pat R. Roach

Phys. Rev. Letters 39, 626 (1977)

Preliminary Measurements of the Low Temperature Ion Mobility in Normal Liquid ^3He

Paul D. Roach, J. B. Ketterson and Pat R. Roach

Quantum Fluids and Solids, edited by Samuel B. Trickey, E. Dwight Adams and James W. Duffy (Plenum Pub. Co., N.Y., 1977), pp. 259-269

Transverse Zero Sound in Normal ^3He

Pat R. Roach and J. B. Ketterson

Quantum Fluids and Solids, edited by Samuel B. Trickey, E. Dwight Adams, and James W. Duffy (Plenum Pub. Co., N.Y., 1977), pp. 223-231

Positive Ion Mobility in Normal ^3He

Paul D. Roach, J. B. Ketterson and Pat R. Roach

Physics Letters 63A, 273 (1977)

Sound Propagation in Normal and Superfluid ^3He

J. B. Ketterson and P.R. Roach

Proc. IEEE Annual Ultrasonics Symposium (1977) p. 359

Positive-Ion Mobility in Dilute Solutions of ^4He in ^3He

Pat R. Roach, J. B. Ketterson and Paul D. Roach

J. Low Temp. Phys. 34, 169 (1979)

Effect of ^4He on Positive-Ion Mobility in Normal Liquid ^3He

Pat R. Roach, J. B. Ketterson and Paul D. Roach

Suppl. J. de Physique C6 74 (1978)

Measurements of High Frequency Sound Propagation in $^3\text{He B}$

D. B. Mast, B. K. Sarma, J. R. Owers-Bradley, I. D. Calder, J. B. Ketterson and W. P. Halperin

Phys. Rev. Lett. 45, 266 (1980)

Group Velocity Spectroscopy of Collective Modes in $^3\text{He-B}$

I. B. Calder, D. B. Mast, B. K. Sarma, J. R. Owers-Bradley, J. B. Ketterson and W. P. Halperin

Phys. Rev. Letters 23, 1866 (1980)

Measurements of the Acoustic Impedance of Superfluid ^3He

- D. B. Mast, J. R. Owers-Bradley, W. P. Halperin, I. D. Calder, B. K. Sarma and J. B. Ketterson
Physica 107 B & C, 685 (1981)
- Resolution of New Structure in the Collective Mode Spectrum of ^3He -B
B. S. Shivaram, M. W. Meisel, B. K. Sarma, D. B. Mast, W. P. Halperin and J. B. Ketterson
Phys. Rev. Letters 49, 1646 (1982)
- Coupling of Spin Waves with Zero Sound in Normal ^3He
J. B. Ketterson
Phys. Rev. Letters 50, 259 (1983)
- Observation of a New Resonance in the Collective Mode Spectrum of ^3He A
M. W. Meisel, B. S. Shivaram, B. K. Sarma, J. B. Ketterson and W. P. Halperin
Phys. Rev. Lett. 50, 361 (1983)
- Non-Linear Zeeman Shifts in the Collective Mode Spectrum of ^3He -B
B. S. Shivaram, M. W. Meisel, B. K. Sarma, W. P. Halperin and J. B. Ketterson
Phys. Rev. Lett. 50, 1070 (1983)
- Magnetic Field Study of the Squashing Mode in ^3He -B
M. W. Meisel, B. S. Shivaram, B. K. Sarma, J. B. Ketterson and W. P. Halperin
Phys. Rev. B, 27, 6982 (1983)
- Probing Collective Modes of Superfluid ^3He -B with Zero Sound
J. B. Ketterson, B. S. Shivaram, M. W. Meisel, B. K. Sarma and W. P. Halperin
AIP Con't. Proc. 103, 288 (1983)
- Acoustic Impedance Investigations of the Collective Modes of ^3He -B
J. B. Ketterson, M. W. Meisel, B. S. Shivaram, B. K. Sarma and W. P. Halperin
Proc. of the IEEE Ultrasonics Symp, Atlanta, 1983, B.R. McAvoy, Ed., p. 1074
- Explanation of Excess Attenuation Near the Pair Breaking Edge in ^3He -B
M. Meisel, B. Shivaram, B. K. Sarma, J. B. Ketterson and W. P. Halperin
Proceedings of LT17 (Post deadline Volume) (Elsevier Science Publishers B.V. (1984)
- Dispersion Induced Splitting of Order Parameter Collective Modes in ^3He B
P. N. Brusov, V. N. Popov, B. S. Shivaram, M.W. Meisel, B. K. Sarma, W. P. Halperin and J. B. Ketterson, Proc. of 17th (Elsevier Science Publishers, B.V. 1984) pg. 779
- Coupling of Rayleigh-like Waves with Zero Sound in Normal ^3He
A. Bogacz and J. B. Ketterson
Proceedings of LT 17 (Elsevier Science Publishers, B.V. 1984) pg. 1227
- Coupling of Rayleigh-like Waves with Zero Sound in Normal ^3He
S. A. Bogacz and J. B. Ketterson
J. Low Temp. Phys. 60, 133 (1985)
- Magnetic Field Investigation of the Acoustic Impedance Resonance Near 2D(T) in ^3He
M. W. Meisel, B. S. Shivaram, B. K. Sarma, J. B. Ketterson and W. P. Halperin
Phys. Lett. 110A, 49 (1985)
- Sound Propagation Experiments in a Magnetic Field in Superfluid ^3He -B

- B. S. Shivaram, M. W. Meisel, B. K. Sarma, W. P. Halperin and J. B. Ketterson
J. Low Temp. Phys. 63, 57 (1986)
- NMR in Normal ^3He with a Meander-Line Coil
S. A. Bogacz and J. B. Ketterson
Phys. Rev. Lett. 57, 591 (1986)
- Surface Coupling to Collective and Single-Particle Modes in ^3He
S. A. Bogacz and J. B. Ketterson
J. Jnl. Appld. Phys. 26, 225 (1987)
- Surface Coupling to Collective and Single Particle Spin Modes in Normal ^3He
S. A. Bogacz and J. B. Ketterson
J. Low Temp. Phys. 71, 445 (1988)
- Measurements of the Pair Breaking Edge in Superfluid $^3\text{He-B}$
S. Adenwalla, Z. Zhao and J. B. Ketterson
Phys. Rev. Lett. 63, 1811 (1989)
- A Study of the $J = 2$ Collective Modes of Superfluid ^3He Using a Dynamic Pressure Sweeping Technique, S. Adenwalla, Z. Zhao, J. B. Ketterson, and B. K. Sarma
J. Low Temp. Phys. 76, (1989)
- Pair Breaking Edge in Superfluid $^3\text{He-B}$
S. Adenwalla, Z. Zhao, J. B. Ketterson and B. K. Sarma
Proc. of the Int. Symp on Quantum Fluids and Solids, 1989
- Observation of a Doublet Splitting of the Squashing Mode in Superfluid $^3\text{He-B}$
Z. Zhao, S. Adenwalla, P. N. Brusov, J. B. Ketterson and B. K. Sarma
Proc. of the Int. Symp. on Quantum Fluids and Solids, 1989
- Observation of New Structures in the Collective Mode Spectrum of $^3\text{He-B}$
Z. Zhao, S. Adenwalla, M.C. Shih, J. B. Ketterson and B. K. Sarma
Physica B 165 & 166 668 (1990)
- Collisionless Collective Modes in Superfluid ^3He
J. B. Ketterson
Arkhimedes 3 324 (1990)
- Resolution of a Doublet Splitting of the Squashing Mode in Superfluid $^3\text{He-B}$
Z. Zhao, S. Adenwalla, P. Brusov, J. B. Ketterson and B. K. Sarma
Phys. Rev. Lett. 65, 2688 (1990)
- Sound Propagation in Superfluid ^3He
Z. Zhao, S. Adenwalla, B. K. Sarma and J. B. Ketterson
Advances in Physics 41, 147 (1992)
- Splitting of Real Squashim Mode in Acoustic Impedance Experiments on $^3\text{He-B}$
V.L. Golo and J. B. Ketterson
Phys. Rev. Brief Communications 45, 2516 (1992)
- Excitation of Collective Modes in Superfluid $^3\text{He-B}$ by Magnetic Resonance Techniques

1 Junctions

- J. B. Ketterson
Phys. Rev. B (Rapid Comm.) 45, (1992)
Collective Modes of the Axi-Planar Phase
- J. B. Ketterson
J. Low Temp. Phys. 4, 509 (1992)
Acoustic Impedance Measurements of Transverse and Longitudinal Sound in Superfluid ^3He
S. Kalbfeld, D. Kuchera and J. B. Ketterson
J. Low Temp. Phys. 4, 735 (1992)
- Measurement of the Transverse Acoustic Impedance of Superfluid ^3He B
S. Kalbfeld, D. M. Kucera and J. B. Ketterson
Phys. Rev. B 48 4160 (1993)
- Observation of an Evolving Standing Wave Pattern Involving a Transverse Disturbance in Superfluid ^3He , S. Kalbfeld, D. M. Kucera and J. B. Ketterson
Phys. Rev. Lett. 71, 2264 (1993)
- Measurements of the Transverse Sound Phase Velocity in Superfluid ^3He
S. Kalbfeld, D. M. Kucera and J. B. Ketterson
Physica B, **194-196**, pp. 795-796 (1994)
- Transverse Acoustic Response of Superfluid ^3He -B
S. Kalbfeld, D. M. Kucera and J. B. Ketterson
J. Low Temp. Phys. 98, 549 (1995)
- Identification of He-3-A by Ultrasound Experiments
P. N. Brusov J. B. Ketterson, P. P. Brusov, and N. P. Kulik
Physica **B284**, 264 (2000).

Liquid Crystals

- Anisotropic Ultrasound Propagation in a Smectic-A Liquid Crystal
K. Miyano and J. B. Ketterson
Phys. Rev. Letters 31, 1047 (1973)
- Ultrasonic Study of Liquid Crystals
K. Miyano and J. B. Ketterson
Phys. Rev. A12, 615 (1975)
- Acoustic Brillouin Zone Effect in a Cholesteric Liquid Crystal
I. Muscutariu, S. Bhattacharja and J. B. Ketterson
Phys. Rev. Letters 35, 1584 (1975)
- Anisotropic Sound Propagation in a Smectic-C Liquid Crystal
S. Bhattacharya, C. J. Umrigar and J. B. Ketterson
Mol. Cryst. Liq. Cryst. 40, 793 (1977)
- Anisotropic Ultrasound Propagation in a Cholesteric Liquid Crystal
S. Bhattacharya, I. Muscutariu and J. B. Ketterson
Molecular Crystals and Liquid Crystal 44, 1 (1978)

1 Junctions

- Ultrasonic Observation of a Strong Pretransitional Anomaly Near a Nematic-Smectic A Phase Transition
S. Bhattacharya, B. Sarma and J. B. Ketterson
Phys. Rev. Letters 40, 1582 (1978)
- Ultrasonic Study of a Smectic-B Liquid Crystal
S. Bhattacharya, S. Y. Shen and J. B. Ketterson
Phys. Rev. 19, 1211 (1979)
- Anisotropic Ultrasound Propagation in a Smectic Liquid Crystal
S. Bhattacharya, S. Y. Shen and J. B. Ketterson
Phys. Rev. 19, 1219 (1979)
- Ultrasonic Studies of the NA and AB Transitions
S. Bhattacharya, I. D. Calder, B. Y. Cheng, J. B. Ketterson and B. K. Sarma
Proc. of the 2nd International Conference on Liquid Crystals Bangalore, India (1979)
- Unusual Melting Behavior in a Smectic Liquid Crystal
I. D. Calder, B. K. Sarma, B. Y. Cheng and J. B. Ketterson,
Phys. Rev. A 22, 2133 (1980)
- Viscosity and Surface Tension Measurements on CBBOA Using Propagating Capillary Waves: Critical Behavior
C. H. Sohl, K. Miyano and J. B. Ketterson
Phys. Rev. A22, 1256 (1980)
- Ultrasonic Study of the Nematic-Smectic A and Smectic A and Smectic A -Smectic B Phase Transitions
S. Bhattacharya, I. Calder, B. Y. Cheng, J. B. Ketterson and B. K. Sarma
“Liquid Crystals” Ed. S. Chandrasekhar; Heyden, London, (1980) p 491.
- An NMR Study of the Smectic A - Smectic B Transition in BBOA
J. R. Owers-Bradley, I. D. Calder, J. B. Ketterson and W. P . Halperin
Mol. Cryst. Liq. Cryst. 76, 175 (1981)
- Critical Attenuation and Dispersion of Longitudinal Ultrasound Near a Nematic-Smectic A Phase Transition
S. Bhattacharya, B. K. Sarma and J. B. Ketterson
Phys. Rev. B 23, 2398 (1981)
- Acoustic Detection of a Propagaing Shear Wave in a Smectic Liquid Crystal
B. Y. Cheng, B. K. Sarma, I. D. Calder, S. Bhattacharya and J. B. Ketterson
Phys. Rev. Lett. 46, 828 (1981)
- Observation of Ultrasonic Anomaly near a Smectic A - Smectic C Phase Transition
S. Bhattacharya, B. Y. Cheng, B. K. Sarma and J. B. Ketterson
Phys. Rev. Lett. 49, 1012 (1982)
- The Angular Dependence of Acoustic Shear Wave Propagation in a Smetic B Liquid Crystal
B. Y. Cheng, S. Bhattacharya, B. K. Sarma and J. B. Ketterson
Phys. Letters A88A, 70 (1982)
- Anomalous Damping of Sound in a Smectic A Liquid Crystal: Breakdown of Conventional Hydrodynamics
B. Bhattacharya and J. B. Ketterson
Phys. Rev. Lett. 49, 997 (1982)

Superconductivity: High and Low T_c

Very Low Temperature Search for Superconductivity in Pd, Pt and Rh

R. A. Webb, J. B. Ketterson, W. P. Halperin, J. J. Vuillemin and J. B. Sandesara
J. Low Temp. Phys. 32 659 (1978)

A New Layered Copper Oxide LaSrCuA/5

J. B. Wiley, L. M. Markham, J. P. Vaughey, T. J. McCarthy, M. Sabat, S. J. Hwu, S. M. Song, J. B. Ketterson and K. R. Poeppelmeier
in Chemistry of High Temperature Superconductors II, ACDS Symposium Series **377**, 304 (1984)

Regions of Possible Compound Formation Y_{2-x}Ba_xCu_{204-x/2+δ} and Y_{2-x}Ba_{1+x}Cu₂

0_{6-x/2+δ}

S. J. Hwu, S. N. Song, J.P. Theiel, K.R. Poeppelmeier, J. B. Ketterson and A.J . Freeman
Phys. Rev. B35 7119 (1987)

Oxide Superconductor Research at Northwestern University

J. B. Ketterson

Int. J. Mod. Phys. B. Vol. 1, 829 (1987)

Preparation of Y-Ba-Cu-O_x Thin Films on MgO by dc Magnetron Sputtering from a Stoichiometric YBa₂Cu₃₀_x Target

S. J. Lee, E. D. Rippert, B. Y. Jin, S. N. .Song, S. H. Hwu, K. Poeppelmeier and
J. B. Ketterson
Appld. Phys. Lett., 51, 1194 (1987)

Isoelectronic Analogs of High Temperature Oxide Superconductors

J. Thiel, S. N. Song, J. B.Ketterson and K. R. Poeppelmeier

IUPAC "Symposium in Print", Blackwell Scientific Publications Oxford (1987), pg. 123

Oxide Ion Vacancies, Valence Electrons and Superconductivity in Mixed-Metal Oxide

J. Thiel, S. N. Song, J. B. Ketterson and K. R. Poeppelmeier
Am. Chem. Soc., Chapt.17 (1987)

Magnetization of Sinter-Forged YBa₂Cu_{307-δ}.

S. N. Song, Q. Robinson, S. J. Hwu, D. L.Johnson, K. R. Poeppelmeier and
J. B. Ketterson
Appld. Phys. Lett. 51, 1376 (1987)

Magnetic Properties of the High T_c Y-Ba-Cu-O System

S. N. Song, S. H. Hwu, K. Poeppelmeir, T. O. Mason and J. B. Ketterson
J. Jnl. Appld. Phys. 26, 1039 (1987)

Subsolidus Compabilities in the Y₂O₃ - BaO - CuO System via Diamagnetic Susceptibility

S. J. Hwu, S. N. Song, J. B. Ketterson, T. O. Mason and K.R. Poeppelmeier
Comm. Am. Ceram. Soc., 70, C-165 (1987)

Anisotropic Properties Of Sinter-Forged YBa₂Cu_{300-d}

S. N. Song, Q. Robinson, D. L. Johnson and J. B. Ketterson
Solid State Comm. 68, 391 (1988)

A New Layered Copper Oxide LaSrCuAl₅

J. B. Wiley, L. M. Markham, J. P. Vaughey, T. J. McCarthy, M. Sabat, S. J. Hwu, S. N. Song,
J. B. Ketterson and K. R. Poeppelmeier

1 Junctions

in Chemistry of High Temperature Superconductors II, ACS Symposium Series 377, 304 (1988)

Ultrasonic Velocity Anomalies in Superconducting Sinter Forged $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$

Z. Zhao, S. Adenwalla, A. Moreau, J. B. Ketterson, Q. Robinson, D. L. Johnson, S. J. Hwu, K. R. Poeppelmeier, M.F. Xu, Y. Hong, R.F. Wiegert, M. Levy and B.K. Sarma
Phys. Rev. B39 721 (1989)

Ultrasonic Attenuation Measurements in Sinter-Forged $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$

M. F. Xu, D. Bein, R. F. Wiegert, B. K. Sarma, M. Levy, Z. Zhao, S. Adenwalla, A. Moreau, Q. Robinson, D. L. Johnson, S. J. Hwu, K. R. Poeppelmeier and J. B. Ketterson
Phys. Rev. B39, 843 (1989)

Elastic Constant Anomalies in the Sinter Forged High T_c Superconductor $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$

Z. Zhao, S. Adenwalla, A. Moreau, Q. Robinson, D. L. Johnson, S. Hwu, K. R. Poeppelmeier and J. B. Ketterson
J. Less Comm. Met. 149, 451 (1989)

Ultrasonic Attenuation in Sinter Forged High T_c $\text{YBa}_2\text{Cu}_3\text{O}_{0-d}$

M. F. Xu, D. Bein, Y. Hong, B. K. Sarma, M. Levy, Z. Zhao, S. Adenwalla, A. Moreau, Q. Robinson, D. J. Johnson, S.J. Hwu, K. R. Poeppelmeier and J. B. Ketterson
J. Less Comm. Met. 149, 447 (1989)

Ion Microprobe Characterization of e-Beam Deposited $\text{YBaCu}(\text{F})\text{O}$ Films

J. M. Chabala, R. P. H. Chang, J. B. Ketterson, R. Levi-Setti, D.X. Li, Y. L Wang and X. K. Wang
Physica C. 162, 75 (1989)

Oriented Thin Films of $\text{YBaCu}(\text{F})\text{O}$ with High T_c and J_c prepared by Electron Beam Multilayer

X. K. Wang, K. C. Sheng, S. J. Lee, Y. H. Shen, S. N. Song, D. X. Li, R. P. H. Chang
and J. B. Ketterson
J. Appld. Phys. 54, 1573 (1989)

Microstructural Studies of Epitaxial $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Films

D. X. Li, X. K. Wang, D. Q. Li, R. P. H. Chang and J. B. Ketterson
J. Appld. Phys. 66, 5505 (1989)

Raman Studies of Reactive, D.C. Magnetron Sputtered Thin Films of YBaCuO on MgO

K. C. Sheng, S. J. Lee, Y. H. Shen, X. K. Wang, E. D. Rippert, R. P. VanDyne,
J. B. Ketterson and R. P. H. Chang

High T_c $\text{Y}-\text{Ba}-\text{Cu}-\text{O}$ Films Prepared by Multilayer Reactive Sputtering from Separate Y , Cu , $\text{Ba}_{.5}\text{Cu}_{.5}$

S. J. Lee, K. C. Sheng, Y. H. Shen, E. Rippert, X. K. Wang, R. VanDyne, R. P. H. Chang and
J. B. Ketterson

Sci. and Tech. of Fast Ion Conductors Vol 199, 215 (1989) J. Mat. Res. 4, 71 (1989)

A New Hybird PVD/OMCVD Route to High T_c Superconducting Thin Films of $\text{Tl}-\text{Ba}-\text{Ca}-\text{Cu}-\text{O}$,

D. S. Richeson, L. M. Tong, X. K. Wang, H. O. Marcy, T. G. Marks, J. B. Ketterson, R. P. H.
Chang and C. R. Kannewurf, Appld. Phys. Lett. 55, 26 (1989)

Preparation of Thin Films of $\text{YBaCu}(\text{F})\text{O}$ with High T_c and J_c

X. K. Wang, S. J. Lee, K. C. Sheng, Y. H. Shen, S. N. Song, R. P. H. Chang and
J. B. Ketterson

Sci. and Tech. of Thin Film Superconductors, P. D. McConnell and S. A. Wolf
Ed., Plenum Pub. Corp. 1989, pg. 141

I Junctions

High Resolution SIMS Imaging of Multilayer Deposited High T_c Thin Films

R. Levi-Setti, J. M. Chabala, R. P. H. Chang, D. L. Hansley, J. B. Ketterson, D. Q. Li, X. L. Wang, and X. K. Wang

Secondary Ion Mass Spectrometry (SIMS) VII, New York, 1990 pg. 693

LaSrCuGaO₅: A New Brownmillerite-Related Mixed-Metal Copper Oxide

R. Shumake, S. N. Song, J. B. Ketterson and K. R. Poeppelmeier
Mol. Cryst. Liq. Cryst. 184, 335 (1990)

Characterization of Epitaxial Superconducting YBaCuO Thin Films with Three Different Orientations

X. K. Wang, D. X. Li, S. N. Song, J. Q. Zheng, R. P. H. Chang and J. B. Ketterson
Mat. Res. Soc. Symp. 169 (1990)

In-situ Synchrotron Study of the Growth of Y-Ba-Cu-O Thin Films on SrTiO₃

J. Q. Zheng, X. K. Wang, M. C. Shih, S. J. Lee, S. Williams, J. So, P. Dutta,
J. B. Ketterson and R. P. H. Chang
(Second International Conference on Electronic Materials, Sept. 1990)

A New Hybrid PVD/OMCVD Route to High T_c Superconducting Thin Films of Tl-Ba-Cu-O

D. S. Richeson, L. M. Tonge, X. K. Wang, H. O. Marcy, T. J. Marks, J. B. Ketterson R. P. H. Chang and C. R. Kannewurf
Mat. Res. Soc. Symp. Proc. 619 (1990)

Preparation and Characterization of Superconducting YBaCuO Thin Films with Three Different Orientations

X. K. Wang, D. X. Li, Y. B. Lu, S. Song, J. Q. Zheng, R. P. H. Chang, J. B. Ketterson and Y. H. Shen, Proc. of the Beijing Int. Conf. on High Temperature Superconductivity (Singapore: World Scientific 1990) p. 86

In-Situ Synchrotron X-ray Studies of the Structural Properties of Y-Ba-Cu-O Thin Film During Growth

J. Q. Zheng, X. K. Wang, M. C. Shih, S. Williams, S. J. Lee, J. So, P. Dutta,
R. P. H. Chang, and J. B. Ketterson
Appld. Physics Lett. 58, 2303 (1991)

In-Situ Synchrotron Study of Growth of Y-Ba-Cu-O Thin Films on SrTiO₃

J. Q. Zheng, X. K. Wang, M. C. Shih, S. J. Lee, S. Williams, J. So, P. Dutta,
J. B. Ketterson and R. P. H. Chang
IEEE Trans. on Mag. 27, 1025 (1991)

Pulsed Organo-Metallic Beam Epitaxy of Complex Oxide Films

S. J. Duray, D. B. Buchholz, S. N. Song, D. S. Richeson, J. B. Ketterson, T. J. Marks and R. P. H. Chang, Appld. Phys. Lett. 59, 1503 (1991)

Effect of Oxygen Partial Pressure on the In-Situ Growth of Y-Ba-Cu-O Thin Films on SrTiO₃

J. Q. Zheng, M. C. Shih, S. Williams, S. J. Lee, H. Kajiyama, X. K. Wang, Z. Zhao, K. Viani, S. Jacobson, P. Dutta, R. P. H. Chang, J. B. Ketterson, T. Roberts, R. J. Kampwirth and K. E. Gray
Appld. Phys. Lett. 59 231 (1991)

Superlattices of YBa₂Cu₃O_{7-d}/PrBa₂Cu₃O_{7-δd} Grown by the Pulsed Organometallic Beam Epitaxy (POMBE) Method

S. J. Duray, D. B. Buchholz, H. Zheng, V. P. Dravid, D. L. Schulz, T. J. Marks,
J. B. Ketterson and R. P. H. Chang
Proc. of the Applied Superconductivity Conference, Aug. 1992

1 Junctions

- A New Series of Mixed-Metal Cuprates in the T Structure $Nd_{2-x-y}Al_xCe_yCuO_{4-\delta}$ ($Al = Mg$ and Ca)
S. M. Wang, J. D. Carpenter, M. V. Deaton, S. J. Hwu, J. T. Vaughey,
K. R. Poeppelmeier, S. N. Song and J. B. Ketterson
Inorganica Chimica Acta 96, 145 (1992)
- In-Situ X-Ray Diffraction Studies of YBCO Films
S. Williams, J. Q. Zheng, M. C. Shih, X. K. Wang, S. Williams, S. J. Lee, E. D. Rippert,
S. Maglic, H. Kajiyama, D. Segel, P. Dutta, R. P. H. Chang, J. B. Ketterson, T. Roberts, Y. Lin,
R. T. Kampwirth and K. Gray
J. Appld. Phys. 72, 4798 (1992)
- Superlattices of $YBa_2Cu_3O_{7-d}/ArBa_2Cu_3O_{7-d}$ Grown by the Pulsed Organometallic Beam Epitaxy (POMBE) Method
S. J. Duray, D. B. Buchholz, H. Zhang, S. N. Song, V. P. Dravid, D. L. Schulz,
T. J. Marks, J. B. Ketterson and R. P. H. Chang
J. Vac. Sci. Technol. A11, 1346 (1993)
- Insitu X-Ray Diffraction Studies of $YBa_2Cu_3O_x/LaAl_3$ Interfaces
S. M. Williams, X. K. Wang, S. Maglic, T. S. Toellner, C. T. Lin, M. D. Cavanagh, S. J. Duray,
P. M. Lundquist, R. P. H. Chang and J. B. Ketterson
J. Appld. Phys. 75, 5371 (1994).
- J_c Enhancement of Electrophoretically Deposited $YBa_2Cu_3O_{7-\delta}$ Superconducting Wire by BaF_2 Addition
S. Cho, Y. T. Yao, J. B. Ketterson and K. L. Telschow
Appld. Phys. Lett. 67, 851 (1995)
- Fabrication and Characterization of Weak Links Between \perp -axis Normal Grains of $YBa_2Cu_3O_{7-x}$
S. Mahajun, D. B. Buchholz, J. Lei, T. Hogan, S. N. Song, B. Hinds, C. R. Kannewurf, T. J. Marks, J. B. Ketterson, J. Eckstein and R. P. H. Chang
J. Materials Research Vol. II. A370, 38 (1996)
- Growth and In-situ X-ray Characterization of $YBa_2Cu_3O_x/LaAl_3$ Superlattices
S. M. Williams, S. Maglic, C. Thomas, C. T. Lin, M. J. Wagoner, R. P. H. Chang
and J. B. Ketterson
Appld. Phys. Lett. 68, 1485 (1996)

Artificial Metallic Superlattices

- Enhanced Magnetization Density of Compositionally Modulated CuNi Thin Films
Barry J. Thaler, J. B. Ketterson and J. E. Hilliard
Phys. Rev. Letters 41, 336 (1978)
- Transport Properties of Compositionally Modulated Alloys
I. Schuller, C. M. Falco, J. Hilliard, J. B. Ketterson, B. Thaler, R. Lacoe and R. Dee
A.I.P. Conf. Proc. 53, 407 (1979)
- Neutron Diffraction Analysis of a Compositionally Modulated Alloy of Copper-Nickel
G. P. Felcher, J. W. Cable, J. Q. Zheng, J. B. Ketterson and J. E. Hilliard
Int. J. of Mag. and Mag. Mat. 21, L198 (1980)
- Magnetization of Compositionally Modulated CuNi Films

1 Junctions

J. Q. Zheng, C. M. Falco, J. B. Ketterson and I. K. Schuller
Appl. Phys. Lett. 38, 424 (1981)

A Note on Compositionally Modulated Cu-Ni Films with Lattice CommensurateWavelengths
N. K. Flevaris, D. Baral, J. B. Ketterson and J. E. Hilliard
Apld. Phy. Lett. 38, 992 (1981)

Superconducting and Transport Properties of Nb/Ti Layered Metals
J. Q. Zheng, J. B. Ketterson, C. M. Falco and I. K. Schuller
Physica 107 B & C, 945 (1981)

Synthesis of Layered Crystals of Titanium/Silver
J. Q. Zheng, J. B. Ketterson and G. P. Felcher
J. Appl. Phys. 53 3624 (1982)

Magnetization and Curie Temprature of Compositonally Modulated Cu/Ni Films
J. Q. Zheng, J. B. Ketterson, C. M. Falco and I. K. Schuller
J. Appl. Phys. 53, 3150 (1982)

Critical Field Measurements in NbTi Composition Modulated Alloys
Y. J. Qian, Z. Q. Zheng, B. K. Sarma, H. Q. Yang, J. B. Ketterson and J. E. Hilliard
J. Low Temp. 49, 279 (1982)

Static and Dynamic Magnetic Studies of Compositonally Modulated Thin Films
N. K. Flevaris, J. B. Ketterson and J. E. Hilliard
J. Appld. Phys. 53, 2439 (1982)

Magnetic Properties of Compositonally Modulated Thin Films
N. K. Flevaris, J. B. Ketterson and J. E. Hilliard
J. Appl. Phys. 53, 8046 (1982)

Mechanical and Thermoelectric Behavior of Composition Modulated Foils
D. Baral, J. B. Ketterson and J. E. Hilliard
Proc. of the 1983 NATO meeting on Modulated Structures, Greece, 1983

V/Fe Commposition Modulated Structures
H. K. Wong, H. Q. Yang, B. Y. Jin, Y. H. Shen, W. Z. Cao, J. B. Ketterson and J. E. Hilliard
J. Appl. Phys. 55, 2494 (1984)

Fabrication of NbN/AlN Multilayers
J. Murduck, J. Vicent, I. K. Schuller and J. B. Ketterson
J. Appld. Phys. 62, 4216 (1984)

Mechanical Properties of Composition Modulated Cu/Ni Foils
D. Baral, J. B. Ketterson and J. E. Hilliard
J. of Appl. Phys. 57, 1076 (1985).

Magnetic Properties of V/Fe Superlattices
H. K. Wong, B. Y. Jin, H. Q. Yang, J. E. Hilliard
J. Appl. Phys. 57, 3660 (1985)

Superconducting Properties of V/Fe Superlattices
H. K. Wong, B. Y. Jin, H. Q. Yang, J. E. Hilliard and J. B. Ketterson
Superlattices and Microstructures 1, 259 (1985)

Superconducting Properties of Layered NbTi/Ge Structures Prepared by d.c. Sputtering
B. Y. Jin, Y. H. Shen, H. Q. Yang, H. K. Wong, J. E. Hilliard, J.B. Ketterson and I. K. Schuller
J. Appl. Phys. 57, 2543 (1985)

1 Junctions

Transport Properties in Weak and Strong Localization Regime in NbTi/Ge Superlattices

B. Y. Jin, H. K. Wong, J. E. Hilliard and J. B. Ketterson

Superlattices and Microstructures, 1, 401 (1985)

Mössbauer Spectroscopy of Composition Modulated [110] Fe/V Films

N. Jaggi, L. H. Schwartz, H. K. Wong and J. B. Ketterson

J. Magn. Mag. Matls., 49, 1 (1985)

Superconducting Properties of V/Fe Superlattices

H. K. Wong, B. Y. Jin, H. Q. Yang, J. B. Ketterson and J. E. Hilliard

Superlattices and Microstructures 1, 259 (1985)

Superconducting Properties of V/Fe Superlattices

H. K. Wong, B. Y. Jin, H. Q. Yang, J. B. Ketterson and J. E. Hilliard

J. Low Temp. Phys. 63, 307 (1986)

Magnetic Properties of Compositionally Modulated Fe/Cr Thin Films

C. Sellers, Y. Shiroishi, N. K. Jaggi, J. B. Ketterson and J. E. Hilliard

J. Mag and Magn. Mat. 54, 787 (1986)

Superconducting Fluctuations, Weak Anti-Localization and InteractionEffects in Nb_{.53}Ti_{.47}/Ge

Multilayers

B. Y. Jin, Y. H. Shen, J. E. Hilliard and J. B. Ketterson

Solid State Comm., 1, 1 (1986)

Dimensional Crossover of Weak-Localization and InteractionEffects in Nb_{.53}Ti_{0.47}/Ge Multilayers

B. Y. Jin and J. B. Ketterson

Phys. Rev. B33, 8797 (1986)

Anisotropic Upper Critical Fields of Disordered Nb_{0.53}Ti_{0.47}/Ge Multilayers

B. Y. Jin, J. B. Ketterson, J. E. Hilliard, E. J. McNiff, S. Foner and I. K. Schuller

J. Low Temp. Phys. 69 (1987)

Superconductivity of NbTi/Ge Multilayers in Weakly Localized Regime

B. Y. Jin, M. R. Ma, J. Q. Zheng, S. Adenwalla, J. B. Ketterson, B. K. Sarma and
B. S. Shivaram

Solid State Comm., 63, 401 (1987)

Crystallographic and Electrical Properties of Fe/Cr and Cu/Ni Superlattices

Y. Shiroishi, C. Sellers, J. E. Hilliard and J. B. Ketterson

J. Appld. Phys. 62, 3694 (1987)

Fabrication of NbN/AlN Mutilayers

J. Murduck, J. Vicent, I. K. Schuller and J. B. Ketterson

J. Appld. Phys. 62, 4216 (1987)

Critical Current Enhancement in NbN/AlN Multilayers

J. M. Murduck, D. W. Capone, I. K. Schuller, S. Foner and J. B. Ketterson

Appld. Phys. Lett. 52, 504 (1988)

Calculation of the TransitionTemperature for Artifical Metallic Superlattices in the Dirty Limit:

Application to Nb/Cu

P. R. Auvil And J. B. Ketterson

Solid State Comm.67, 1003 (1988)

Proximity Effect Coupled V/Cr Superlattices

1 Junctions

- B. Davis, J. Q. Zheng, J. E. Hilliard, P. R. Auvil and J. B. Ketterson
Superlattices and Microstructures 4, 465 (1988)
- Calculation of Transition Temperatures of Superconductor-Metal Superlattices
P. R. Auvil and J. B. Ketterson
Superlattices and Microstructures 4, 431 (1988)
- Generalized de Gennes-Takahashi-Tachiki Proximity Effect Theory
P. R. Auvil, J. B. Ketterson and S. N. Song
J. Low Temp. Phys. 74 (1989)
- Structural Studies of Artificial Si/Nb Superlattices Films
S. Song, D. X. Li, J. B. Ketterson and S. Hues
J. Appld. Phys. 66, 5360 (1989)
- Magnetic Properties of Fe/Mn Superlattices
Y. Motomura and J.B. Ketterson, S. Adenwalla, A. Moreau, Q. Robinson,
D. J. Johnson, S. J. Hwu, K. R. Poeppelmeier and J. B. Ketterson
J. Less Common Metals 149, 447 (1989)
- Vertical Electrical Conductance in Artificial Si/Nb Superlattices
S. N. Song and J. B. Ketterson
Solid State Comm. 75, 651 (1990)
- Magnons in Cu/Ni Superlattices
J. Mattson, W. Robertson, U. Welp, J. B. Keterson and M. Grimsditch
J. Superlattices and Microstructures 7, 47 (1990)
- Vertical Resistive Transition in Si/Nb Multilayers
S. N. Song and J. B. Ketterson
Physica B 165 & 166, 479 (1990)
- Magnetic Properties of Fe-Based Superlattices and Sandwiches
C. Sellers, J. E. Hilliard and J. B. Ketterson
J. Appl. Phys. 68, 5778 (1990)
- Surface Phonons in Cu/Ni Superlattices
J. Mattson, R. Bhadra, J.B.Ketterson, M. Brodsky and M. Grimsditch
J. Appld. Phys. 67, 2873 (1990)
- New Measurements of the Elastic Properties of Composition Modulated Cu/Ni Thin Films
A. Moreau, J. B. Ketterson and J. Mattson
Appld. Phys. Lett. 56, 20 (1990)
- Vertical Resistive Transition and Critical Current in Si/Nb Multilayers
S. N. Song and J. B. Ketterson
Solid State Comm. 77, 281 (1991)
- Anomalous Hall Effect in (110) Fe/(110) Cr Multilayers
S. N. Song, C. Sellers and J. B. Ketterson
Appld. Phys. Lett. 59, 479 (1991)
- Dimensional Crossover and its Effects on Localization/Interaction and Superconductivity in Si/Nb Multilayers, S. N. Song and J. B. Ketterson
Physics Letters 155, 325 (1991)
- Elastic and Nanostructural Properties of Cu-Pd Superlattices
B. M. Davis, D. N. Seidman, J. B. Ketterson, R. Bhadrab and M. Grimsditch

J. Mater. Res. 7, 1356 (1992).

Distribution of vortices in Nb/Al multilayers studied by spin-polarized neutron reflectivity and magnetization distribution., S.-W. Han, J. Farmer, P. F. Miceli, G. Felcher, R. Goyette, G. T. Kiehne and J. B. Ketterson, Physica B **336**, 162 (2003).

Artificial Semiconductor/Semimetal Superlattices

Amplification of Sound by Conduction Electrons in a Piezoelectric Superlattice

J. B. Ketterson and G. K. Wong

Appl. Phys. Lett. 43, 43 (1983)

Piezoelectric Composition-Modulated Structures

H. K. Wong, A. DiVenere, G. K. Wong and J. B. Ketterson

Proc. of the Ultrasonic Symp., B. R. McAvoy, Ed., 1983, p. 1171

Preparation and X-ray Diffraction Studies of Compositionally Modulated PbTe-Bi Films

S.C. Shin, J.E. Hilliard and J.B. Ketterson

Thin Solid Films, 11, 323 (1984)

Preparation and Structural Analysis of SnTe/Sb Composition Modulated Structures

B. Y. Jin, H. K. Wong, G. K. Wong, J. E. Hilliard and J. B. Ketterson

J. Appl. Phys. 55, 920 (1984)

Anomalous Transport Properties of a New Compositonally Modulated Semiconductor-Semimetal System: PbTe/Bi

S. C. Shin, J. E. Hilliard and J. B. Ketterson

J. Vac. Sci. and Tech. A2, 296 (1984)

Surface Waves in SnTe/Sb Superlattices

A. Kueny, M. Grimsditch, B. Y. Jin, J. B. Ketterson and J. E. Hilliard

J. Appl. Phys. 56, 1550 (1984)

Logarithmic Transport Behavior in New PbTe-Bi Superlattice Films

S. C. Shin, J. B. Ketterson and J. E. Hilliard

Phys. Rev. B30 4099 (1984)

Growth and Structural Characteristics of Semiconductor-Semimetal Superlattices: CdTe-Bi, PbTe-Bi, SnTe-Sb, A. DiVenere, S. C. Shin, B. Y. Jin, G. K. Wong, J. B. Ketterson and J. E. Hilliard
J. Cryst. Growth, 70, 452 (1984)

Two Dimensional Transport Behavior in PbTe/Bi Superlattices

S. C. Shin, J. B. Ketterson and J. E. Hilliard

Superlattices and Microstructure, 1, 25 (1985)

Bi_{1-x}Sb_x Superlattices Grown by Molecular Beam Epitaxy

X. J. Yi, H. C. Wang, A. DiVenere, C. L. Hou, J. Chen, J. B. Ketterson and G. K. Wong
Appld. Phys. Lett. **64**, 1 (1994)

Localization and Interaction Effects in CdTe/Bi Superlattices

A. DiVenere, H. K. Wong, G. K. Wong and J. B. Ketterson

Superlattices and Microstructre, 21 (1985)

Molecular-Beam Epitaxy of Bi Epliayers and Bi-CdTe Superlattices

A. Divenere, X. J. Yi, L. Hou, H. C. Wang, J. Chen, J. B. Ketterson and G. K. Wong

1 Junctions

J. Vac. Sci. Tech. **B12**, (1994).

Interface Structure Between Bi and CdTe in MBE Grown Bi/CdTe and Bi/Bi_{1-x}Sb_x Superlattices, J. Chen, X. J. Yi, H. C. Wang, A. DiVenere, C. L. Hou, G. K. Wong and J. B. Ketterson, J. Electron Mat. **23**, 1255 (1994)

Bi/Sb Superlattices Grown by Molecular Beam Epitaxy

S. L. Cho, Y. Kim, A. Di Venere, J. R. Meyer, G. K. Wong, and J. B. Ketterson J. Vac. Sci. and Technology, A17, 2987 (1999).

Coherent Phonons in Mixed Semimetals and Semimetal Superlattices

S. Nakashima, M. Hase, M. Mizoguchi, H. Harima, K. Sakai, S. Cho, A. DiVenere, and J.B. Ketterson, Physica B 263-264, 67 (1999).

Thin Metal Films

Superconductor-Insulator Transition in MoC Films

S. J. Lee, J. B. Ketterson and S. Adenwalla

Ed. A. A. Aronov, A. I. Larkin and V. S. Luovinov, World Scientific, Singapore (1992), 36

Electron Localization in Mo-C Films

S. J. Lee and J. B. Ketterson

Phys. Rev. 46, 12695 (1992)

Metal Insulator Transition in Quasi Two Dimensional Mo-C Films

S. J. Lee, J. B. Ketterson and N. Trivedi

Phys. Rev. 46, 12695 (1992)

Enhanced Magnetoresistance Below the Spin-Flip Transition of Cr(001) Thin Films

J. E. Mattson, S. D. Bader, M. B. Brodsky and J. B. Ketterson

J. Mag. and Magn. Matr. 109, 179 (1992)

Critical Sheet Resistance for Suppression of Superconductivity in Thin Mo-C Films

S. J. Lee and J. B. Ketterson

Phys. Rev. Lett. 64 3078 (1990)

Magnetrotransport Properties of Epitaxial Cr Thin Films

J. Matson, B. Brumitt, M. B. Brodsky and J. B. Ketterson

J. Appld. Phys. 67, 4889 (1990)

Paramagnetic Relaxation and the Wohllenben Effect in Field-Cooled Nb Thin Films

A. Terentiev, D. B. Watkins, L. E. De Long, D. J. Morgan and J. B. Ketterson

Phys. Rev. B 60, 761 (1999).

Observation of Magnetic Flux Pinning in a Thin Nb Film With a

Square Lattice of Ni Dots ,

A. Terentiev, D. B. Watkins, L. E. De Long, D. J. Morgan, and J. B. Ketterson

Physica C324, 1 (1999).

X-ray Reflectivity Study of Gold Films During Sputter Deposition

R. P. Chiarello, H. You, H. K. Kim, T. Roberts, R. T. Kampwirth, D. Miller, K. E. Gray, K. G. Vandervoort, N. Trivedi, S. T. Phillipot, J. Q. Zheng, S. Williams and J. B. Ketterson, Surface Science 380, 245 (1997).

Thin Semiconductor/Semimetal Films

Effect of Annealing of the Transport Properties of an Epitaxial Film of Bismuth

B. Y. Jin, H. K. Wong, G. K. Wong, J. E. Hilliard, J. B. Ketterson and Y. Eckstein
Thin Solid Films, 110, 29 (1983)

Growth of n-Type Hetroepitaxial Films of Gray Tin on (001) CdTe by Molecular Beam Epitaxy

L. W. Tu, G. K. Wong and J. B. Ketterson
Appld. Phys. Lett. 54, 1010 (1989)

Shubnikov de Haas Effect in Thin Epitaxial Films of Gray Tin

L. W. Tu, G. K. Wong, S. N. Song, Z. Zhao and J. B. Ketterson
Appl. Phys. Lett. 55, 2643 (1989)

Observation of a Quantum Size Effect in Gray Tin Epilayers

L.W. Tu, G. K. Wong and J. B. Ketterson
Appld. Phys. Lett. 55, 1327 (1989)

Transport Properties in n-type InSb Films Grown by Metalorganic Chemical Vapor Deposition

S. N. Song, Y. H. Choi, R. Sudharsanan, M. Razegi and J. B. Ketterson
Appl. Phys. Lett. 63, 964 (1993)

Semimetal-to Semiconductor Transition in Bismuth Thin Films

C.A. Hoffman, J. R. Meyer, F. J. Bartoli, A. DiVenere, X. J. Yi, C.L. Hou, H. C. Wang, J. B. Ketterson and G. K. Wong
Phys. Rev. B 48, 11, 431 (1993)

Magneto-Optical Determination of T-Point Energy Gap in Bismuth

J. P. Omaggio, J. R. Meyer, C. A. Hoffman, A. DiVenere, X. J. Yi, C. L. Hou, H. C. Wang, J. B. Ketterson and G. K. Wong
Phys. Rev. B 48, 11, 439 (1993)

Polarity Inversion on CdTe (111) Orientation Grown on Bi(00.1) by Molecular Beam Epitaxy

A. DiVenere, X. J. Yi, C. L. Hou, H. C. Wang, J. B. Ketterson and G. K. Wong
Appld. Phys. Lett. 62 2640 (1993)

Growth and Characterization of Substrate-Stabilized Hetroepitaxial Grey Tin Films

L.W. Tu, G. K. Wong, S. N. Song, Z. Zhao and J. B. Ketterson
Semi. Cond. Technol. 5, S245 (1990)

Dimensional Crossover of Shubnikov de Haas Oscillations in Thin Films of Gray Tin

S. N. Song, X. J. Yi, J. Q. Zheng, Z. Zhao, L. W. Tu, G. K. Wong and J. B. Ketterson
Phys. Rev. Lett. 65, 227 (1990)

Superconducting Properties of V/Fe Sandwiches

H. K. Wong and J. B. Ketterson
J. Low Temp. Phys. 63, 139, (1986)

Ferroelectric Properties of a-axis Textured BaTiO₃ Thin Films

H. A. Lu, L. A. Wills, B. W. Wessels, X. Zhan, J. A. Helfrich and J. B. Ketterson
Mat. Res. Soc. Symposium on Ferroelectric Thin Films Proceedings, E. R. Myers, B. Tuttle, eds.,
MRC Publ., 1993.

Semimetal-to-semiconductor transition in bismuth thin-films - reply C. A.

Hoffman, J. R. Meyer, F. J. Bartoli, et al.

1 Junctions

Phys. Rev. B **51**, 5535, (1995).

Thermoelectric Power of MBE Grown Bi Thin Films and Bi/CdTe Superlattices

S. Cho, A. DiVenere, G. K. Wong, J. B. Ketterson, J. P. Meyer and C. E. Hoffman

Solid State Comm, 102, 673 (1997).

Thermoelectric Power of Bi and Bi_{1-x}Sb_x Alloy Thin Films and

Superlattices Grown by MBE.

S. Cho, A. DiVenere, G. K. Wong, J. B. Ketterson, J. R. Meyer and C. A. Hoffman, Mat. Res. Soc. Symp. Proc. 478, 67(1997).

Observation of a Power Factor Enhancement in MBE-grown Bi_{1-x}Sb_x Alloy Thin Films

S. Cho, A. DiVenere, G. K. Wong, J. B. Ketterson, J. R. Meyer and C. A. Hoffman, International Conference on Thermoelectrics, Dresden Germany.

Thermoelectric Transport Properties of n-doped and p-doped Epitaxial

Bi 0.91Sb 0.09 Alloy Thin Films

S. Cho, A. DiVenere, G. K. Wong, J. B. Ketterson, J. R. Meyer and C. A. Hoffman

J. Appld. Phys. 85 3655 (1999)

Molecular Beam Epitaxy Growth and Structural Properties of Bi_{1-x} Sb_x Alloy Thin

Films on CdTe (111) Substrates

on CdTe(B) Substrates,, S. Cho, A. DiVenere, G. K. Wong, J. B. Ketterson and J. R. Meyer, J. Appld. Phys. A 17, 9 (1999).

Coherent Phonons in Bi-Sb Superlattices

S. Nakashima, M. Hase, M. Mizoguchi, H. Harima, K. Sakai, S. Cho, A. DiVenere, and J.B. Ketterson,
Physica B 263, 67 (1999)

Quantitative Mobility Spectrum Analysis (QMSA) for Hall Characterization of
Electrons and Holes in Anisotropic Bands,

I. Vurgaftman, J. R. Meyer, C. A. Hoffman, S. Cho, J. B. Ketterson, L. Faraone, J. Antoszewski, and J. R. Lindmuth.
J. Electronic Mater. 28 548 (1999)

Transport properties of Bi_{1-x} Sb_x alloy thin films grown on CdTe(111)B

S. Cho, A DiVenere. G. K. Wong, et al.

Phys. Rev. B 59 10691 (1999)

Antisite Defects in Bi₂Te₃ thin films

S. L. Cho, Y. Kim, A. Divenera, J. R. Meyer G. K. Wong and J. B. Ketterson
Appld. Phys. Lett. 75, 1401 (1999).

Growth Habit or Rhombohedral Bi Thin Films on Zinc Blende CdTe

Substrates With Various Orientations,

Y. Kim, S. Cho, A. DiVenere, G. K. Wong, and J. B. Ketterson,
J. Vac. Sci Technol. A17, 3473 (1999) .

Anisotropic Seebeck and Magneto-Seebeck Coefficient of Bi and BiSb

Alloy Thin Films,

S. Cho, Y. Kim, A. DiVenere, G. K. L. Wong, J. B. Ketterson, and J. R. Meyer,
Proc. of the 18th International Conference on Thermoelectrics
IEEE Publications, Cat. #99TH8407

1 Junctions

Piscataway, New Jersey, pg. 205 (1999)

Artificially Ordered BiSb Alloys: Growth and Transport Properties,
S. Cho, Y. Kim, A. Divenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, L. J. Olafson, I. Vurgaftman, J. R. Meyer, and C. A. Hoffman,
Proc. of the 18th International Conference on Thermoelectrics
IEEE Publications, Cat. #99TH8407
Piscataway, New Jersey, pg. 104 (1999)

Growth and Thermoelectric Properties of Artificially Layered (BiSb)₂Te₃,
S. Cho, Y. Kim, A. Divenere, G. K. Wong, and J. B. Ketterson,
Proc. of the 18th International Conference on Thermoelectrics
IEEE Publications, Cat. #99TH8407
Piscataway, New Jersey, pg. 222 (1999)

Bi Substitution Effects on Sb₂Te₃ Thin Films
Y. Kim, S. Cho, A. DiVenera, G. K. Wong, J. B. Ketterson, and J. R. Meyer
Proc. of the 18th International Conference on Thermoelectrics
IEEE Publications, Cat. #99TH8407
Piscataway, New Jersey, pg. 183 (1999)

Control of antisite defects in Sb₂Te₃
Y. Kim, S. Cho, A. Divenere, G. K. Wong, J. B. Ketterson, and J. R. Meyer
Proc. of the 18th International Conference on Thermoelectrics
IEEE Publications, Cat. #99TH8407
Piscataway, New Jersey, pg. 700 (1999)

Growth Mode Modification of Bi on CdTe (III) Using Te Monolayer Deposition,
S. Cho, A. DiVenere, G. K. Wong, J. B. Ketterson, J. R. Meyer, and Jung-II Hong, Phys. Rev. B 58, 2324 (1998).

Strain Induced Second Harmonic Generation in Pseudo-Cubic
Ba_{0.48}Sr_{0.52}TiO₃Thin Films
U. C. Oh, Jing Ma, G. K. L. Wong, J. B. Ketterson and J. H. Je,
Appld. Phys. Lett. **76**, 1461 (2000).

Anisotropic Seebeck and magneto-Seebeckcoefficientsof Bi and Bi_{0.92}Sb_{0.08}
alloy thin films
S. L. Cho, Y. Kim, A. DiVenere, G. K. L. Wong, J. B. Ketterson, and J. R. Meyer
J. Appl Phys **88** (2000).

Composition-dependent layered structure and transport properties in BiTe thin films, Y. Kim, S. L. Cho, A. DiVenere, G. K. L. Wong, and J. B. Ketterson
Phys. Rev. B **63**, 5306 (2001).

Polarity inversion in polar-nonpolar-polar heterostructures
S. L. Cho, S. J. Youn, Y. Kim, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, Phys Rev Lett **87**, 6403 (2001).

Large magnetoresistance in postannealed Bi thin films

S. L. Cho, Y. Kim, A. J. Freeman, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, *Appld. Phys. Lett.* **79**, 3651 (2001).

Structural and thermoelectric transport properties of Sb_2Te_3 thin films grown by molecular beam epitaxy, Y. Kim, A. DiVenere, G. K. L. Wong, J. B. Ketterson, S. Cho, and J. R. Meyer, *J. Appl. Phys.* **91**, 715, (2002).

Artificially ordered Bi/Sb superlattice alloys: Fabrication and transport properties, S. L. Cho, Y. Kim, S. J. Youn, A. DiVenere, G. K. L. Wong, A. J. Freeman, J. B. Ketterson, L. J. Olafsen, I. Vurgaftman, J. R. Meyer, C. A. Hoffman, *Phys. Rev. B* **64**, 5330 (2001).

Large magnetoresistance in post-annealed polycrystalline and epitaxial Bi thin films
S. Cho, Y. Kim, L. J. Olafsen, I. Vurgaftman, A. J. Freeman, G. K. L. Wong, J. R. Meyer, C. A. Hoffmann, and J. B. Ketterson
J. of Magnetism and Magnetic Mater., **239**, 201 Sp. Iss. SI (2002).

Bi epitaxy on polar InSb (111)A/B faces

S. C. Cho, Y. H. Um, Y. K. Kim G. K. Wong, J. B. Ketterson, and J. I. Hong
J. Vac. Sci. Tecgnol. A **20**, 1191 (2002).

Theoretical and experimental study of alpha-Sn deposited on CdTe(001),
J. A. Gomez, D. Guenzburger, D. E. Ellis, M. Y. Hu, E. Alp, E. M. Baggio-Saitovitch, E. C. Passamani, J. B. Ketterson, S. Cho,
Phys. Rev. B **67**, 115340 (2003).

Structural and thermoelectric properties in $(\text{Sb}_{1-x}\text{Bi}_x)_2\text{Te}_3$ thin films,
S. Cho Y. Kim, and J. B. Ketterson, *Applied Physics A- Materials Science & Processing* **79** 1729 (2004).

Langmuir Films and Langmuir-Blodgett Multilayers

Rigidity of Monolayers Spread on Water

B. M. Abraham, K. Miyano, J. B. Ketterson and K. Buzard
"Ordering in Two Dimensions" Ed. S.K. Sinha, North Holland (1980)

Solvent Effects on Surfactant Monolayers Adsorbed on Water

B. M. Abraham, K. Miyano and J. B. Ketterson
"Ordering in Two Dimensions" Ed. S.K. Sinha, North Holland (1980) p. 451.

Shear Rigidity of Spread Stearic Acid Monolayers on Water

B. M. Abraham, J. B. Ketterson, K. Miyano and A. Keuny
J. Chem. Phys. **75**, 3137 (1981)

Shear Modulus Measurements on Classical Monolayer Systems

B. M. Abraham, K. Miyano, S. Q. Xu and J. B. Ketterson
Phys. Rev. Letters **49**, 1643 (1982)

The Phases of Insoluble Monolayers: Comparison between the Surface Pressure-Area (π -A) Diagram and Shear Modulus Measurements

K. Miyano, B. M. Abraham, J. B. Ketterson and S. Q. Xu
J. Chem. Phys. (Letters) **78**, 4776 (1983)

Anomalous Melting Properties of Some Classical Monolayer Systems

B. M. Abraham, K. Miyano, J. B. Ketterson and S. Q. Xu

1 Junctions

- Phys. Rev. Lett. 51, 1975 (1983)
- X-Ray Diffraction Study of the In-Plane Structure of an Organic Multilayer ('Langmuir-Blodgett') Film
M. Prakash, P. Dutta, J. B. Ketterson and B. M. Abraham
Chem. Phys. Lett. 111, 395 (1984)
- Static Shear Modulus of a Methyl Cellulose Solution and Visco-Elasticity of a Polyvinyl Alcohol Solution
B. M. Abraham, K. Miyano and J. B. Ketterson
J. Coll. and Inst. Sci. 107, 264 (1985)
- Determination of Viscosity of Valinomycin Monolayer as a Function of Surface Density and a Comment on Conformation
B. M. Abraham and J. B. Ketterson
Langmuir 1, 461 (1985)
- The Contact Angle of Lead Stearate Covered Water on Mica During the Deposition of Langmuir-Blodgett Assemblies
J.B. Peng, B.M. Abraham, P. Dutta and J.B. Ketterson
Thin Solid Films 134, 187 (1985)
- Study of the In-Plane Structure of Lead-Fatty Acid LB Films Using X-ray Diffraction
M. Prakash, J. B. Ketterson and P. Dutta
Thin Solid Films 134, 1 (1985)
- Deposition of Langmuir-Blodgett Assemblies
J. B. Peng, B. M. Abraham, P. Dutta and J. B. Ketterson
Thin Solid Films 134, 187 (1985)
- Dipalmitoyl Lecithin Monolayers at the Air/Water Interface: Measurements of the Response to Shear as a Function of Surface Density and pH
B. M. Abraham and J. B. Ketterson
Langmuir 1, 708 (1985)
- Studies of the In-Plane Structure of Various Lead-Fatty Acid LB Films Using X-Ray Diffraction
M. Prakash, J. B. Ketterson and P. Dutta
Thin Solid Films 134, 1 (1985)
- Measured Elastic Constant of a Surface Gel Phase from a Dilute Aqueous Solution of Methylcellulose
B. M. Abraham, J. B. Ketterson and F. Behrozzi
Langmuir 2, 602 (1986)
- Deposition of Langmuir-Blodgett Films of Ferric Stearate
M. Prakash, J. B. Peng, J. B. Ketterson and P. Dutta
Thin Solid Films 146, L15 (1986)
- Verification of Epitaxial Growth and Determination of Chain 'Tilt' in Langmuir Blodgett Films of Lead Stearate on Mica
M. Prakash, J. B. Peng, J. B. Ketteson and P. Dutta
Chem. Phys. Lett. 128, 354 (1986)
- Viscoelasticity Measurements at Air/Water Interface on Monolayers of Dimyristoyl Phosphatidyl Serine (DMPS) and Bovine Brain Phosphatidyl Serine (BBPS)
B. M. Abraham and J. B. Ketterson
Langmuir 2, 801 (1986)

1 Junctions

Langmuir-Blodgett Deposition of a Ring-Shaped Molecule (Valinomycin)

B. M. Abraham, J. B. Peng, P. Dutta and J. B. Ketterson

Langmuir 3, 104 (1987)

X-Ray Diffraction Study of an Organic Monolayer on the Surface of Water

P. Dutta, J. B. Peng, B. Lin, M. Prakash, J. B. Ketterson, P. Georgopoulos and S. Ehrlich

Phys. Rev. Lett., 58, 2228 (1987)

Formation of Multilayers of Dipalmitoyl Phosphatidyl Choline Using the Langmuir-Blodgett Technique

J. B. Peng, M. Prakash, B. M. Abraham, R. Macdonald, P. Dutta and J. B. Ketterson

Langmuir 3, 1096 (1987)

Diffraction Studies of Langmuir Films

J. B. Peng, B. Lin, J. B. Ketterson and P. Dutta

in Springer Series in Surface Science, edited by M.A. van Hove and J.F. van der Veen
(Springer-Verlag, 1987)

Using the Transfer of a Langmuir Monolayer as a Probe of Wetting

J. B. Peng, J. B. Ketterson and P. Dutta

Thin Solid Films 159, 111 (1988)

Synchrotron Diffraction Studies of Lead Octadecanoate, Tetracosanoic Acid and

1-eicosanol Monolayers on Water

B. Lin, J. B. Peng, J. B. Ketterson and P. Dutta

Thin Solid Films 159, 111 (1988)

A Study of the Transition and Y-type to the X-type Transfer During Deposition of Lead Stearate and Cadmium Stearate LB Films

J. B. Peng, J. B. Ketterson and P. Dutta

Langmuir 4, 1198 (1988)

Formation of Multilayers of Dipalmitoyl Phosphatidyl Choline Using the Langmuir Blodgett

Technique, J. B. Peng, M. Prakash, B. M. Abraham, R. Macdonald, P. Dutta and J.B. Ketterson,
Langmuir 3, 1096 (1987).

X-Ray Diffraction Study of a Langmuir Monolayer of C₂₁H₄₃OH

S. W. Barton, B. N. Thomas, E. B. Flom, S. A. Rice, B. Lin, J. B. Peng, J. B. Ketterson and P. Dutta, J. Chem. Phys. 89 2257 (1988)

Kinetics of a Structural Phase Transition in Langmuir Monolayers Studied Using X-Ray

Diffraction, B. Lin, J.B. Peng, J. B. Ketterson, P. Dutta, B. N. Thomas, J. Buontempo and S. A. Rice, J. Chem. Phys. 90, 2393 (1989)

A Study of the Mechanical Behavior of Surface Monolayers Using Orthogonal Wilhelmy Plates

K. Halperin, P. Dutta and J. B. Ketterson

Langmuir 5, 161 (1989)

Direct Measurements of the Mechanical Properties of Polymerized and Unpolymerized Langmuir-Blodgett Films

K. Halperin, M. Sailor, R. Gadwood, J. B. Ketterson and P. Dutta

J. Polym. Sci. 27, 1289 (1989)

Flow of a Surfactant Across a Thin Liquid Film Wetting a Solid Substrate

J. B. Peng, S. X. He, P. Dutta and J. B. Ketterson

Phys. Rev. B. Rapid Comm. 40, 7421 (1989)

Thickness of a Liquid Film on a Solid Substrate Induced by Steady Surfactant Flow

1 Junctions

S. X. He and J. B. Ketterson

Phys. Rev. B: Rapid Comm. 40, 7417 (1989)

Measurement of Contact Angle Relaxation During the Deposition of Langmuir Blodgett

Films of Cadmium Stearate and Valinomycin

J. B. Peng, S. He, P. Dutta and J. B. Ketterson

Thin Solid Films 202, 351 (1991)

Surface Tension Anisotropy and Relaxation in Uniaxially Compressed Langmuir Monolayers

T. M. Bohanon, A. M. Lee, J. B. Ketterson and P. Dutta

Langmuir 8, 2497 (1992)

Surfactant Driven Spreading of a Liquid on a Vertical Surface

S. He and J. B. Ketterson

Phys. of Fluids 7, 2640 (1995)

Studies of Phase Transitions in Langmuir-Monolayers by Second Harmonic Generation

Z. Zheng, Z. Feng, G.K. Wong and J. B. Ketterson, Langmuir 12, 19 (1996)

Shear Response Langmuir Monolayers of Heneicosanoic (C₂₁) Acid Studied Using a

Torsion Pendulum, R. S. Ghaskadvi, T. M. Bohanon, P. Dutta, and J. B.

Ketterson, Phys. Rev. E 54, 1770, (1996).

Nonlinear Shear Response and Anomalous Pressure Dependence of the Viscosity of a

Langmuir Monolayer, R. S. Ghaskadvi, P. Dutta and J. B. Ketterson

Langmuir 13, 5137 (1997).

Steady Transfer of a Monolayer Between Two Langmuir Troughs Via the Marangoni

Effect, S. He and J. B. Ketterson

Phil. Mag. B, 77, 831 (1998).

Heavy Fermion Metals

Shift in the Maximum of Sound Attenuation with Magnetic Field in UPt₃

H. P. Baum, M. F. Xu, Y. J. Qian, A. Schenstrom, J. B. Ketterson, D. Hinks, M. Levy and B. K. Sarma, (Conf. on Magnetism and Magnetic Materials) J. Appld. Phys. 63, 3686 (1984)

Longitudinal Sound Measurements in UPt₃ in a Magnetic Field

Y. J. Qian, M. F. Xu, A. Schenstrom, H. P. Baum, J. B. Ketterson, D. Hinks, M. Levy and B. K. Sarma, Solid State Comm. 63, 599 (1987)

Shift in the Maximum of Sound Attenuation with Magnetic Field in UPt₃

H. P. Baum, M. F. Xu, Y.J. Qian, A. Schenstrom, J. B. Ketterson, D. Hinks, M. Levy and B. K. Sarma (Conf. on Magnetism and Magnetic Materials) J. Appld. Phys. 63, 3686 (1988)

Anisotropy of the Magnetic Field Induced Phase Transition in Superconducting UPt₃

A. Schenstrom, D. Hess, J. B. Ketterson, J. A. Sauls and D. G. Hinks

Phys. Rev. Lett. 62, 332 (1989)

Magnetic Field Dependent Sound Attenuation in UPt₃

A. Schenstrom, M. F. Xu, Y. Hong, M. Levy, B.K. Sarma, S. Adenwalla, Z. Zhao, J. B. Ketterson and D. G. Hinks, J. Less Common Metals 149, 349 (1989)

The Phase Diagram of UPt₃ from Ultrasonic Velocity Measurements

S. Adenwalla, S. W. Lin, Q. Z. Ran, Z. Zhao, J. B. Ketterson, J. A. Sauls,

1 Junctions

L. Taillefer, D. G. Hinks, M. Levy and B. K. Sarma

Phys. Rev. Lett. 65, 2298 (1990)

Magnetization and Sound Velocity Measurements Near the Antiferromagnetic Transition in the Heavy Fermion UPt₃

S. Adenwalla, S. W. Lin, Q.Z. Ran, J. Q. Zheng, M-F. Xu, K. J. Sun, D. G. Hinks, J. B. Ketterson, M. Levy and B. K. Sarma
Physica B 165 & 166, 349 (1990)

Phase Diagram of Superconducting UPt₃

S. Adenwalla, Z. Zhao, J. B. Ketterson, M. Levy, B. K. Sarma
Physica B 165 & 166, 351 (1990)

Superconducting Lower Critical Field of UPt₃

Z. Zhao, F. Behroozi, J. B. Ketterson, Y. M. Guan, B. K. Sarma and D. G. Hinks
Physica B 165 & 166 345 (1990)

Sound Velocity and Magnetization Measurements Near the Antiferromagnetic Transition in the Heavy Fermion System UBe₁₃

S. W. Lin, S. Adenwalla, Q. Z. Ran, K. J. Sun, D. G. Hinks, J. B. Ketterson, M. Levy and B. K. Sarma, Physica B 165 & 166, 423 (1990)

Hysteresis in the Ultrasonic Attenuation in UPt₃ in Low Magnetic Fields

A. Shenstrom, M. F. Xu, Y. Hong, M. Levy, B. K. Sarma, S. Adenwalla, Z. Zhao, J. B. Ketterson and D. G. Hinks
J. of the Less Common Metals 149, 353

Superconducting lower critical fields in UPt₃, Z. Y. Zhao, F. Behroozi,
J. B. Ketterson, *et. al.*, Physica B 165, 345 (1990)

Critical Fields and Landau-Ginzburg Parameters of the Heavy Fermion Superconductor UPt₃

Z. Zhao, F. Behroozi, S. Adenwalla, Y. Guan, J. B. Ketterson, B. K. Sarma and D. G. Hinks
Phys. Rev. B43, 13720 (1991)

Thermodynamics of UPt₃; Superconducting Phase Diagrams

S. Adenwalla, J.B.Ketterson, S. K. Yip, S. W. Lin, M. Levy and B. K. Sarma
Phys. Rev. B46, 9070 (1992)

Ultrasonic Studies of the Heavy Fermion Compounds

S. W. Lin, S. Adenwalla, J. B. Ketterson, M. Levy and B. K. Sarma
J. Low Temp. Phys. 3, 217 (1992)

Superconducting Phase Diagram of UPt₃

S. Adenwalla, J. B. Ketterson, M. Levy and B. K. Sarma
J. of Alloys and Compounds 81, 153 (1992)

Superconducting Phase Diagram of UPt₃ for Field Along a Non-Symmetric Orientation from Ultrasonic

Measurements

S. W. Lin, C. Jin, H. Zhang, J. B. Ketterson, D. M. Lee, D. G. Hinks, M. Levy and
B. K. Sarma, Phys. Rev. B 49, 1000 (1994)

Superconducting Phase Diagram of UPt₃ for Field Along a Non-Symmetric Orientation from Ultrasonic
Measurements

S. W. Lin, C. Jin, H. Zhang, J. B. Ketterson, D. M. Lee, D. G. Hinks, M. Levy and
B. K. Sarma, Physica B, **194-196**, 2023 (1994)

Ultrasonic Studies of Superconducting Phase Diagram of UPt₃

S.-W. Lin, H. Zhang, C. Jin, J. B. Ketterson, D. M. Lee, D. G. Hinks, M. Levy
and B. K. Sarma
Physica B, **199-200**, 170 (1994)

Superconducting Phase Diagrams of UPt₃ from Ultrasonic Velocity Measurements

S. W. Lin, J. B. Ketterson, M. Levy, B. K. Sarma
Physica B 204, 233-241 (1995)

Superconducting Phase Diagrams of UPt₃ from Ultrasonic Velocity Measurements

S. W. Lin, J. B. Ketterson, M. Levy, B. K. Sarma
Physica B 204, 233-241 (1995)

Ultrasonic Studies on UPt₃ in High Magnetic Fields

S. W. Lin, I. Kouroudis, A. G. M. Jansen, P. Wyder, B. Luthi, D. G. Hinks,
J.B. Ketterson, M. Levy and B.K. Sarma
Proc. SCES GOA Conference (1995)

Microwave Impedance Measurements on the Heavy Fermion

Superconductors UPt₃ and UBe13
C. T. Lin, S. W. Lin, B. K. Sarma, G. R. Stewart and J. B. Ketterson
Proc. of the Conference on Low Temperature Physics Cornell, (1995)

Ultrasonic Velocity and Attenuation Measurements at the Metamagnetic Transition in
UPt₃, S. W. Lin, I. Kouroudis, A. G. M. Jansen, P. Wyder, B. Luthi, D. G. Hinks,
J. B. Ketterson, M. Levy and B. K. Sarma
Proceedings of the Conference on Low Temperature Physics, Cornell (1995)

High Field Ultrasonic Measurements on UPt₃

S.W. Lin, I. Kouroudis, A.G.M. Jansen, P. Wyder, B. Luthi, D.G. Hinks,
J. B. Ketterson, M. Levy and B. K. Sarma
Proceedings of the Conference on High Field Magnetic Fields,
Tallahassee (1995)

Microwave Complex Surface Impedance Measurements on the Heavy Fermion

Superconductor UBe13
S. W. Lin, C. T. Lin, B. K. Sarma, G. Stewart and J. B. Ketterson
Physics Letters A 217, 161 (1996)

Ultrasonics on UPt₃ in High Magnetic Fields

S. W. Lin, I. Kouroudis, A. G. M. Jansen, P. Wyder, B. Luthi, D. G. Hinks, J. B.
Ketterson, M. Levy and B. K. Sarma,
Physica B 223 & 224, 185 (1996)

Microwave Measurements on the Heavy Fermion Superconductors UPt₃ and UBe13

S. W. Lin, C. T. Lin, D. Wu, B. K. Sarma and J. B. Ketterson
Czechoslovak Journal of Physics 46, 773 (1996) Suppl. S2.

Microwave Surface Resistance Measurements on the Heavy Fermion Compound UPt₃,

C. T. Lin, B. K. Sarma, and J. B. Ketterson
Phys. Letters. A269, 424 (1999).

1 Junctions

Microwave Surface Impedance Measurements in the Heavy Fermions

Superconductor UPt₃,

C. T. Lin, B. K. Sarma, and J. B. Ketterson,

Physica B 259-261, 654 (1999)

Velocity Dispersion at the Metamagnetic Transition of UPt₃,

J. R. Feller, D. Dasgupta, H. Zhang, D. G. Hinks, J. B. Ketterson, and B. K. Sarma,

PhysicaB 259-261, 656 (1999).

Acoustic anomalies in UPt₃ at high magnetic fields and low temperatures

J. R. Feller, J. B. Ketterson, D. G. Hinks, D. Dasgupta, and B. K. Sarma

Phys. Rev. B **62** 11538 (2000)

Anisotropy of the metamagnetic transition in UPt₃

A. Suslov, D. Dasgupta, J. R. Feller, J. B. Ketterson, and B. K. Sarma

J. Low Temp. Phys. **121**, 221 (2000)

Evidence of electromagnetic absorption by collective modes in the heavy fermion

superconductor UBe₁₃

J. R. Feller, C. C. Tsai, J. B. Ketterson, J. L. Smith, and B. K. Sarma

Phys. Rev. Letters **88**, 247 (2002).

Acoustical measurements on the heavy fermion compound URu₂Si₂ in pulsed magnetic fields

A. Souslov, D. Dasgupta, J. Feller, M. Jaime, F. Balakirev, D. G. Hinks, A. Migliori, A. Lacerda, J. B. Ketterson, and B. K. Sarma,

Physica B **312**, 224 (2002).

Ultrasonic measurements at the metamagnetic transition in URu₂Si₂

A. Suslov, D. Dasgupta, J. R. Feller, B. K. Sarma, J. B. Ketterson, D. G. Hinks, M. Jaime, F. Balakirev, A. Migliori, and A. Lacerda

International Journal of Modern Physics B **16**, 3037 (2002)

Ultrasonic and magnetization studies at the metamagnetic transition in UPt₃

A. Suslov, D. Dasgupta, J. R. Feller, B. K. Sarma, J. B. Ketterson, qnd D. G. Hinks

International Journal of Modern Physics B **16**, 3066 (2002)

Ultrasonic spectrometers for condensed matter studies at very high magnetic fields

A. Suslov, D. Dasgupta, J. R. Feller, B. K. Sarma, J. B. Ketterson

International Journal of Modern Physics B **16**, 3391 (2002)

High magnetic field specific heat and MCE of URu₂Si₂, M. Jaime, K. H. Kim, G.

Jorge, S. McCall, A. Suslov, B. K. Sarma, J. B. Ketterson, J. Mydosh

Acta Physica Polonica B **34**, 1165 Sp. Iss. (2003).

H-T phase diagram of URu₂Si₂ in high magnetic fields

A Suslov, J. B. Ketterson, D. G. Hinks, et al.

Phys Rev B **68**. 020406 (2003).

High Magnetic Field Specific Heat and MCE of URu₂Si₂,

M. Jaime, K. H. Kim, G. Jorge, S. McCall, A. Suslov, B. Sarma, J. B. Ketterson, and

J. Mydosh, Acta Physica Polonica B **34**, 1165 (2003).

Microwave absorption measurements of the heavy-fermion superconductor CeCoIn₅

I. P. Nevirkovets, O. Chernyashevskyy, C. Petrovic, J. B. Ketterson, and Bimal K. Sarma,

Physica C - Superconductivity and its Applications **468**, 432 (2008).

Superconducting Tunnel/Josephson Junctions

Propagation and Generation of Josephson Radiation in Superconductor/Insulator Superlattices

Alternately Containing Two Different Barriers

S. N. Song, P. R. Auvil and J. B. Ketterson

IEEE Transaction on Magnetics, Vol. Mag-23, 1154 (1987)

Propagation and generation of Josephson radiation in a Superconductor/Insulator Superlattice,

P. R. Auvil and J. B. Ketterson

J. Appld. Phys., **61**, 1957 (1987)

Preparation of Large Area NbN/AlN Josephson Junctions

S. N. Song, B. Y.Jin, H. Q. Yang and J. B. Ketterson

J.Jnl. Appld. Phys. 26, 1615 (1987)

Multilayered Superconducting Tunnel Junctions for Use as High Energy Resolution X-Ray Detectors

E. D. Rippert, S. N. Song, J. B. Ketterson and M. P.Ulmer

Proc. of 1991 Int. Conf. on Optical Applied Science and Engineering EVV, X-Ray and Gamma Ray Instrumentation for Astronomy, SPIE Proc. Vol. 1549, 283 (1991).

The Role of Engineered Materials in Superconducting Tunnel Junction X-Ray Detectors - Suppression of Quasiparticle Recombination Losses Via a Phononic Band Gap

E. D. Rippert, J. B. Ketterson, J. Chen, S. Song, S. Lomatch, S. R. Maglic, C. T. Thomas, M. A. Chieda, M. P. Ulmer

Proc. of SPIE 1992 Interionatl Symposoium on Optical Applied Science and Engineering EVV X-Ray and Gamma Ray Instrumentation for Astronomy Vol. 1743, 12 (1992)

A Multilayered Approach to Superconducting Tunnel Junction X-ray Detectors

E. D. Rippert, S. N. Song, J. B. Ketterson, S. R. Maglic, S. Lomatch, M. A. Chieda, M. P. Ulmer

ESA Symp. Proc., ESA sp-356, 361 (1992)

Multilayered Josephson Transmission Line Based Photon Counting Detector with Ultrahigh Temporal and High Spatial Resolution

E. D. Rippert, S. Lomatch, J. B. Ketterson, S. N. Song, H. C. Wang and S. R. Maglic
J. Low Temp. Phys. 93, 665 (1993)

High Quality a-Si/Nb and NbN/AlN Artificial Multilayers for Josephson Applications

J. Chen, E. D. Rippert, S. N. Song, M. P.Ulmer and J. B. Ketterson
J. Mater. Research **9**, 1678 (1994).

Applications for Superconducting Multilayers

J. B. Ketterson, E. D. Rippert, S. N. Song, S. Lomatch, S. Maglic, H. C. Wang,
D.J. Morgan and M.P. Ulmer, Proc. 1994 SPIE Meeting in Los Angeles January
(1994)

Multilayer Josephson Junction Flux Quantum Devices

S. Lomatch, E. D. Rippert and J. B. Ketterson

IEEE Trans. on Superconductivity 5, 3147 (1995).

Soliton Localizaton in a Disordered 1-D Josephson Transmission Lines

1 Junctions

- S. Lomatch, E. D. Rippert and J. B. Ketterson
Phys. Rev. B 51, 12, 685 (1995)
- Cavity Modes in Josephson Coupled Superconductor/Insulator Superlattices
S. N. Song and J. B. Ketterson
Physics Letters A208, 150 (1995)
- Intrinsically Damped Multilayered (Stacked) Nb/Al-AlN/Nb Tunnel Junctions
E. D. Rippert, S. N. Song, C. Thomas, S. Lomatch, S. R. Maglic, M. Ulmer and J. B. Ketterson
Applied Superconductivity 2 (1996)
- X-ray Photon Detection with Multilayered Josephson Junctions
C. Thomas, S. R. Maglic, S. N. Song, M. P. Ulmer, and J. B. Ketterson
Nuclear Instrumentation and Methods A370, 38 (1996)
- Vortex Structure and Josephson Supercurrents in Stacked Double Josephson Junctions
S. N. Song, P. R. Auvil, M. Ulmer and J. B. Ketterson
Phys. Rev. B53, R6018 (1996)
- Vortex Structure and Cavity Modes in Stacked Double Nb/AlO_X/Nb Josephson Junctions,
S. N. Song, S. Maglic, C. D. Thomas, M. Ulmer, and J. B. Ketterson.,
J. Appl. Phys. 80, 2949 (1996).
- High Energy-Resolution X-ray Detector Based on a Coupled Fisk Cavity and Josephson Junction Oscillator
S. N. Song, C. Thomas, S. Maglic, M. P. Ulmer and J. B. Ketterson
Appld. Phys. Lett. 69, 1631 (1996).
- Studies of Static and Dynamic Properties of Multilayered (stacked) Josephson Junctions,
S. N. Song, S. R. Maglic, C. Thomas, E. D. Rippert, P. R. Auvil, M. Ulmer, and J. B. Ketterson,
Proc. SPIE 2697, 487 (1996).
- Superconducting Tunnel Junction Base Electrode Planerization,
C. D. Thomas, M. P. Ulmer, and J. B. Ketterson,
J. Appl. Phys. Lett., 84, 364 (1998).
- Periodic and Aperiodic Superconducting Microstructures,
J. B. Ketterson, P. R. Auvil, D. J. Morgan, S. Maglic, C. Thomas, and I. P. Nevirkovets,
Proc. of the SPIE, 3480, 101 (1998).
- Anomolous Critical Current in Double-Barrier Nb/AlO_X/Al/AlO_X/Nb Devices. I. P. Nevrikovets, J. B. Ketterson, and S. Lomatch
Applied Physics Letters 74, 1624 (1999)
- Double Vertically-Stacked Josephson Junctions: Numerical and Analytical Analysis of a Current Biased System in a Magnetic Field,
S. R. Maglic, P. R. Auvil, and J. B. Ketterson.
Phys. Rev B 59, 581 (1999).

1 Junctions

Solution States and Stability of Current Biased Josephson Junctions in a Magnetic Field,

P. R. Auvil, J. B. Ketterson, and S. R. Maglic,

J. Low Temp. Phys. **115**, 45 (1999)

Possible manifestation of Andreev bound states in double-barrier

Nb/Al/AlO_x/Al/AlO_x/Nb tunnel junctions,

I. P. Nevirkovets, J. B. Ketterson, and S. E. Shafranjuk,

Phys Lett **A269**, 238 (2000).

Phase coherence between external electrodes in double-barrier Nb/Al-AlO_x-Al-AlO_x-

Nb tunnel junctions

I. P. Nevirkovets, J. B. Ketterson, and S. E. Shafranjuk

Physica B **284**, 1834 (2000).

Observation of Electromagnetic Coupling to a Closed Superconducting

Thin-Film Cavity,

C. D. Thomas, M. P. Ulmer, and J. B. Ketterson,

IEEE Trans. on Appld. Superconductivity **10**, 1631 (2000).

Band structure observed in the current-voltage characteristics of SINININIS-type junctions

I. P. Nevirkovets, J. B. Ketterson, and S. E. Shafranjuk

JETP Letters **71**, 342 (2000).

Modified superconductor-insulator-normal metal-insulator-superconductor Josephson

junctions with high critical parameters

I. P. Nevirkovets, J. B. Ketterson, and J. M. Rowell

J. Appld. Phys. **89**, 3980 (2001)

Investigation of double-barrier Nb-Al-AlO_x-Al-AlO_x-(Al)Nb junctions under high-

frequency irradiation, I. P. Nevirkovets, J. B. Ketterson, M. Siegel

IEEE Trans. on Appld. Superconductivity: Part 1 **11** 1138 (2001).

A qubit device based on manipulations of Andreev bound states in double-barrier Josephson junctions,

S. E. Shafranjuk, I. P. Nevirkovets, and J. B. Ketterson,

Solid State Comm **121**, 457 (2002).

High-transparency superconductor-insulator-normal-metal-insulator superconductor Josephson junctions for digital electronics

I. P. Nevirkovets, and J. B. Ketterson

Applied Physics Letters **81**, 1273 (2002)

Properties of high-j_c SINIS junctions, I. P. Nevirkovets, S. E. Shafranjuk, J. B. Ketterson, and E. M. Rudenko, IEEE Trans. Appl. Superconductivity. **13** 1085 (2003).

Manifestation of coherent effects in the conductivity of superconductor/insulator/normal-metal/insulator/superconductor junctions , I. P. Nevirkovets, S. E. Shafranjuk, and J. B. Ketterson, Phys Rev B **68**. 024514 (2003).

Optimization of the double-barrier Josephson junction switching dynamics, S. Shafranjuk and J. B. Ketterson, IEEE Transactions on Applied Superconductivity **14** 13-21 (2004).

Fabrication and characteristics of multi-terminal SINIS devices,

I. P. Nevirkovets, O. Chernyashevskyy, and J. B. Ketterson IEEE Transactions on Applied Superconductivity **15** (2): 129-132 Part 1 (2005).

1 Junctions

A particle detector based on a double barrier Josephson junction,

S. E. Shafranjuk, J. B. Ketterson, and I. P. Nevirkovets,

IEEE Transactions on Applied Superconductivity **15** (2): 944-947 Part 1 (2005).

Fabrication and characterization of multiterminal superconductor-insulator-normal metal-insulator-superconductor Josephson devices,

I. P. Nevirkovets, O. Chernyashevskyy, J. B. Ketterson, and E. Goldobin,

J. Appl. Physics **97**, 123903 (2005).

Resonant states of a double-barrier junction,

S. E. Shafranjuk and J. B. Ketterson

Phys. Rev. B **72**, 024509 (2005).

Direct study of the proximity effect in the normal layer inside of the stacked SINIS device

I. P. Nevirkovets, O. Chernyashevskyy, J. B. Ketterson,

Phys. Rev. Lett. **95** 247008 (2005).

Collective oscillations of the superconducting gap of multilayered Josephson junctions

S. E. Shafranjuk, and J. B. Ketterson

Phys. Rev. B **72** (21): Art. No. 212506 (2005).

Characteristics of Zr-based single- and multiple-barrier superconducting tunnel junctions

I. P. Nevirkovetsa, O. Chernyashevskyy and J. B. Ketterson.

App. Phys. Lett. **88**, 212504 2006.

Absence of enhanced superconductivity in double-barrier superconducting tunnel

junctions: Measurements of lateral electric transport in the middle normal-metal layer

I. P. Nevirkovets, O. Chernyashevskyy, and J. B. Ketterson,

Phys. Rev. B **73**, Art. No. 224521 (2006).

Josephson plasmon versus amplitude modes in a superconducting tunnel junction

S. E. Shafranjuk and J. B. Ketterson

Phys. Rev. B **74** Art. No. 172501 (2006).

Enhancement of the supercurrent at a finite voltage in a sandwich-type ballistic SINIS

junction, I. P. Nevirkovets S. E. Shafranjuk, O Chernyashevskyy, J. B Ketterson,

Phys. Rev. Lett. **98** 127002 (2007).

Enhancement of the Josephson critical current in a multiterminal SINIS device under current injection,

I. P Nevirkovets, S. E Shafranjuk, O. Chernyashevskyy, and J. B. Ketterson,

Phys. Rev. B**76**,184520 (2007).

Plasmonics

Surface Plasmon Resonance as a Probe of the Complexing Process of Valinomycin LB Films by Potassium Ions

X. L. Wang, P. Dutta, G. K. Wong and J. B. Ketterson

Thin Solid Films **219**, 210 (1992)

A Scanning Plasmon Optical Microscope

Y. K. Kim, J. Helfrich, P. M. Lundquist, G. K. Wong, P. R. Auvil and J. B.

Ketterson

Appl. Phys. Lett. **66**, 3407 (1995)

1 Junctions

Operation of a Surface Plasmon Optical Microscope in an Atomic Force Microscopy Mode

Y. K. Kim, J. B. Ketterson and D. J. Morgan

Optics Letters 21, 165 (1996)

Conical Electromagnetic Radiation in the Kretschmann Attenuated Total Reflection Configuration

Y. K. Kim, P. R. Auvil and J. B. Ketterson

Applied Optics, 36, 841 (1997).

Surface Plasmon Scanning Near-Field Optical Microscopy

A. E. Kryukov, Y. K. Kim and J. B. Ketterson

J. Applied Physics 82, 5411 (1997).

A Simple Model for the Observed Plasmon Conical Interference Patterns in a Kretschmann Configuration,

P. R. Auvil, J. B. Ketterson, Y. Kim, and A. Kryukov.

Applied Optics 37, 8448 (1998)

Anomalous field enhancement from the superfocusing of surface plasmons at contacting silver surfaces,

I. A. Lalayan, K. S. Bagdasaryan, P. G. Petrosyan, K. V. Nerkararyan, and J. B. Ketterson, J. Appld. Phys., 91, 2965 (2002).

Electronic Structure, Phase Stability, and Semimetal to Semiconductor Transitions in Bi,

A. B. Shick, J. B. Ketterson, and D. L. Novikov
Phys. Rev. 60, 15484 (1999).

Fabrication of bismuth nanowires with a silver nanocrystal shadowmask,

S. H. Choi, K. L. Wang, M. S. Leung, G. W. Stupian, N. Presser, B. A. Morgan, R. E. Robertson, M. Abraham, E. E. King, M. B. Tueling, S. W. Chung, J. R. Heath, S. L. Cho, and J. B. Ketterson
J. Vac. Sci. and Technol. **A18**, 1326 (2000).

Carbon: C₆₀ and Nanotubes

Large Second-Harmonic Responce of C₆₀ Thin Films

X. K. Wang, T. G. Zhang, W. P. Lin, S. Liu, G. K. Wong, M. M. Kappes, R. P. H. Chang and J. B. Ketterson
Appld. Phys. Lett. 60, 810 (1992)

Buckytubes and Derivatives: Their Growth and Implications for Buckyball Formation

V. P. Dravid, X. Lin, Y. Wang, X. K. Wang, A. Yee, J. B. Ketterson and R. P. H. Chang
Science 259, 1601 (1992)

Growth and Characterization of Buckybundles

X. K. Wang, X.W. Lin, V. P. Dravid, J. B. Ketterson and R. P. H. Chang
Appld. Phys. Letts. 62, 1881 (1993)

Electronic Properties of Graphite Nanotubes from Galvanomagnetic Effects

S. N. Song, X. K. Wang, R. P. H. Chang and J. B. Ketterson
Phys. Rev. Lett. 72, 697 (1994)

Magnetic Susceptibility of Buckytubes

X. K. Wang, R. P. H. Chang, A. Patashinski and J. B. Ketterson
J. Materials Research **9** 1578, (1994).

Large Scale Synthesis of Single-Shell Carbon Nanotubes

X. Lin, X. K. Wang, V. P. Dravid, R. P. H. Chang and J. B. Ketterson
Appld. Phys. Lett. **64**, 181, (1994)

Carbon Nanotubes Synthesized in a Hydrogen Arc Discharge

X. K. Wang, X. W. Lin, V. P. Dravid, J. B. Ketterson and R. P. H. Chang
Appld. Phys. Letter. **66**, 2430 (1995)

A Stable Glow Discharge for Synthesis of Carbon Nanotubes

X. K. Wang, X. W. Lin, V. P. Dravid, J. B. Ketterson and R. P. H. Chang
Applied Physics Letters **66**, 427 (1995)

Observation of an Optical-Modulation Effect on Second Harmonic Generation in C₆₀

Thin Films

X. K. Wang, T. G. Zheng, P. M. Lundquist, W. P. Lin, Z.Y. Xu, G. K. Wong,
J. B. Ketterson, R. P. H. Chang
Thin Solid Films **257**, 244 (1995).

Properties of Buckytubes and Derivatives

X. K. Wang, X. W. Lin, S. N. Song, V. P. Dravid, J. B. Ketterson and R. P. H. Chang,
Carbon **33**, 949 (1995).

Nonlinear Optics; Lasing

Second Order Optical Nonlinearities of r.f. Sputter-Deposited AlN Thin Films

W. P. Lin, P. M. Lundquist, G. K. Wong, E. D. Rippert and J. B. Ketterson
Appld. Phys. Letts. **63**, 2875 (1993)

Pulsed Laser Deposition of Potassium Titanyl Phosphate (KTiOPO₄) Films

F. Xiong, R. P. H. Chang, M. E. Hagerman, V. L. Kozhevnikov, K. R. Poeppelmeir, H. Zhou,
G. K. Wong, J. B. Ketterson and C. W. White

Deposition of Nonlinear Optical Films of Potassium Titanyl Phosphate (KTiPO₄) by

Pulsed Laser Eximer Laser Ablation

F. Xiong, M. Hagerman, H. Zhou, K. Kozhevnikov, G. K. Wong, K. Poeppelmeier, J. B.
Ketterson and R. P. H. Chang
J. Vac. Sci. Technol. A, **12**, 1446 (1994)

Fabrication of Potassium Titanyl Phosphate Films by Pulsed Excimer Laser Ablation
for Nonlinear Optical Application

F. Xiong, M. E. Hagerman, H. Zhou, P. M. Lundquist, G. K. Wong, K. R. Poeppelmeier, J. B.
Ketterson, and R. P. H. Chang, and C. W. White
Mater. Res. Soc. Symp. Proc., New Materials for Advanced Solid State Lasers,
329, 141 (1994)

Ultraviolet Second Harmonic Generation in Radio-Frequency Sputtered Alumnum

Nitride Thin Films, P. M. Lundquist, W. P. Lin, Z. Y. Xu, G. W. Wong, E. D. Rippert, J. A.
Helfrich and J. B. Ketterson

Applied. Phys. Lett. **65**, 1085 (1994).

Origins of Second Harmonic Generation in C₆₀ Thin Films

T. G. Zhang, Z. Y. Xu, P.M. Lundquist, W. P. Lin, J. B. Ketterson, G. K. Wong, and R. P. H. Chang, Optics Comm. **111**, 517 (1994)

Nonlinear Optical Properties of Metal Nitride Thin Films

P. M. Lunquist, W. Lin, J. B. Ketterson, G. K. Wong, L. D. Zhu and P. E. Morris
Proc. SPIE (1994)

Second Harmonic Generation in Hexagonal SiC

P. M. Lunquist, W. P. Lin, G. K. Wong, M. Razeghi and J. B. Ketterson
Proc. SPIE (1995)

Potassium Titanyl Phosphate Thin Films on Fused Silica for Optical Waveguide Applications

P. M. Lundquist, H. Zhou, D. N. Hahn, J. B. Ketterson, G. K. Wong, M. E. Hagerman, K.R. Poppelmeier, H.C. Ong, F. Xiong and R.P.H. Chang
Appld. Phys. Letters **66**, 2469 (1995)

Second Harmonic Generation in Hexagonal SiC

P. M. Lunquist, W. P. Lin, G. K. Wong, M. Razeghi and J. B. Ketterson
Appld. Phys. Lett. **66**, 2887 (1995)

Large Second Order Optical Nonlinearities in Pulsed Laser-Ablated Silicon Carbide Films

P.M. Lundquist, W.P. Lin, J.B. Ketterson, H.C. Ong and R.P.H. Chang and G.K. Wong, Appld. Phys. Lett. **67**, 2919 (1995)

Optical Second-Harmonic Generation in Sputter-Deposited AlN Films,

G. T. Kiehne, G. K. L. Wong, and J. B. Ketterson,
J. Appld. Phys. **84**: (11) 5922-5927 (1998).

Phase Matched SHG in a GaN Waveguide,

D. N. Hahn, P. Kung, A. Saxler, M. Razeghi, G. K. Wong, and J. B. Ketterson,
J. Appld. Phys. **85**, 2497 (1999).

A Numerical Study of Optical Second Harmonic Generation in a One Dimensional Photonic Structure, G. T. Kiehne, A. E. Kryukov, and J. B. Ketterson
Appld. Phys. Letters, **75**, 1676 ((1999)).

Photoluminescence and Ultraviolet Lasing of Polycrystalline ZnO Thin Films

Prepared by the Oxidation of Metallic Zn,
S. Cho, J. Ma, Y. Kim, Yi Sun, G. K. Wong, and J. B. Ketterson,
Appld. Phys. Letters **75**, 2761, (1999).

Excitonic gain and stimulated ultraviolet emission in nanocrystalline zinc-oxide powder, Y. Sun, J. B. Ketterson, and G.K.L. Wong

Appl. Phys. Lett. **77**, 2322 (2000)

Ultrafast frequency-selective optical switching based on thin film chromophoric films with a large second-order nonlinear response,

G. Wang, P. Zhu, T. J. Marks, and J. B. Ketterson
Appld. Phys. Letters, **81**, 2169 (2002)

Redetermination of second-order susceptibility of zinc oxide single crystals

G. Wang, G. K. L. Wong, J. B. Ketterson

Appld. Optics **40**, 5436 (2001).

Large second harmonic response in ZnO thin films,

G. Wang, G. T. Kiehne, G. K. L. Wong, J. B. Ketterson, X. Liu. R. P. H. Chang, Appld. Phys. Lett. **80**, (2002).

Ultraviolet lasing from ZnO single crystal at room temperature

W. H. Xiang, G. Z. Zhang, Y. Sun, G. Wang, J. B. Ketterson
Chinese Physics Letters **20**, 296 (2003).

Numerical analysis of waveguide-enhanced optical bistability

G. Wang, G. C. Spalding, R. Huang, L. Luan, and J. B. Ketterson,
Optical and Quantum Electronics **35**, 1357 (2003).

Measurement of the third-order nonlinear optical coefficient of ZnO crystals by using ICCD-Z-Scan, G. M. Jia, G. Z. Zhang, W. H. Xiang, and J. B. Ketterson, Chinese Physics Letters **21**, 1356 (2004).

Enhanced photoluminescence from polycrystalline ZnO films resulting from oxygen processing,

G. Wang, G. Zhang, J. B. Ketterson, and R. Gatt, Thin Solid Films **460**, 232 (2004)

Four-wave mixing theory for two-photon generation of excitons in cuprous oxide,

I. V. Bellousov, J. B. Ketterson and Y. Sun,
Solid State Comm. **134**, 135 (2005).

Highly efficient broadband second harmonic generation using polydomain

epitaxial barium titanate thin film waveguides,
Pao Tai Lin, B. W. Wessels, Joon I. Jang, and J. B. Ketterson,
Appl. Phys. Lett. **92**, 221103 (2008).

Highly efficient nonresonant two-photon absorption in ZnO pellets

S. Mani, J. I Jang, and J. B. Ketterson,
App. Phys. Lett. **93**, 041902 (2008)

[Zn(H₂O)(4)][Zn₂Sn₃Se₉(MeNH₂)]: a robust open framework chalcogenide with a large nonlinear optical response,

M. J. Manos, J. I. Jang, J. B. Ketterson and M. G. Kanatzidis,
Chem. Comm. **8**, 972 (2008).

Coexistence of free excitonic matter with exciton magnetic polarons in Cd_{1-x}Mn_xTe under nonresonant two-photon excitation,

J. I. Jang, S. Mani, J. B. Ketterson, and H. Y. Park,
Phys. Rev. B **77**, 235211 (2008).

Patterned Microstructures

Assymetric Flux Pinning in a Regular Array of Magnetic Dipoles

D. J. Morgan and J. B. Ketterson
Phys. Rev. Lett. **80**, 3614 (1998).

Periodic magnetization instabilities in a superconducting Nb film with a square lattice of Ni dots,

A. Terentiev, D. B. Watkins, L. E. De Long, D. E. Morgan, and J. B. Ketterson
Phys. Rev. **B61**, R9249 (2000).

Periodic magnetization instabilities in a superconducting Nb film with a square lattice of Ni dots

A. Terentiev, B. Watkins, L. E. De Long, L. D Cooley, D. J. Morgan, and J. B. Ketterson, *Physica C* **332**, 5 (2000).

Fluxon pinning by artificial magnetic arrays

D. J. Morgan and J. B. Ketterson

J. of Low Temp. Phys. **122**, 37 (2001).

Ferromagnetic resonance in periodic particle arrays

S. Jung, B. Watkins, L. DeLong, J. B. Ketterson, and V. Chandrasekhar
Phys. Rev. B **66** 132401 (2002).

Size and Interface Effects in Patterned Magnetic and Superconducting Thin Films, L. E. Delong, V. Chandrasekhar, J. B. Ketterson and V. V. Metlushko, in Proceedings of the 2nd International Workshop on Correlations and Materials Properties, A. Gonis, N. Kioussis and M. Ciftan, Eds. (Kluwer Academic Press, Amsterdam, 2002), pp. 43-71

Using interferometric lithography to make large-area two-dimensional nanoarrays,

W. H. Xiang, Y. Z Tan, G. Z. Zhang, G. Wang, , J. B. Ketterson,
Journal of Optoelectronics Laser, **14**, 1054 (2003).

Ferromagnetic resonance study of nanoscale ferromagnetic ring lattices W. T. Xu, D. B. Watkins, L. E. DeLong, K. Rivkin, J. B. Ketterson, V. V. Metlushko, *Journal of Applied Physics* **95** (11): 6645-6647 Part 2, (2004).

Micromagnetics

Micromagnetic calculations of ferromagnetic resonance in submicron ferromagnetic particles

S. Jung, J. B. Ketterson, and V. Chandrasekhar
Phys. Rev. B **66**, 132405 (2002).

Resonant modes of dipole-coupled lattices,

K. Rivkin, A. Heifetz, P. R. Sievert, J. B. Ketterson,
Phys. Rev. B **70** 184410 (2004).

Microscopic study of magnetostatic spin waves,

K. Rivkin, L. E. DeLong, J. B. Ketterson,
J. Appld. Phys. **97**, 10E309 Part 2 (2005).

Switching spin valves using r,f. currents,

K. Rivkin and J. B Ketterson.,
Applied Physics Letters **88**, Art. No. 192515 (2006).

Micromagnetic simulations of absorption spectra,

K. Rivkin and J. B. Ketterson,
Journal of Magnetism and Magnetic Materials, **306**, 204 (2006).

Magnetization reversal in the anisotropy-dominated regime using time-dependent magnetic fields, K. Rivkin and J. B. Ketterson,

Applied Physics Letters **89**, 252507 (2006).

Analysis of ferromagnetic resonance response of square arrays of permalloy nanodots,

K. Rivkin, W.T. Xu, L. E. De Long, V. V. Metlushko, and J. B. Ketterson,
Journal of Magnetism and Magnetic Materials **309**, 317-325 (2007).

Dynamic magnetic response of infinite arrays of ferromagnetic particles,

K. Rivkin, W. Saslow, L. E. De Long, and J. B. Ketterson,

Physical Review B **75**, Art. No. 174408 (2007).

Resonant switching using spin valves,

K. Rivkin, J. B. Ketterson, and W. Saslow,

IEEE Tran. on Magnetics **43** 2920 (2007).

Controlling the Suhl instability in magnetic nanoparticles: A numerical study,

K. Rivkin, W. Saslow, and J. B. Ketterson,

J. of Nanoelectronics and Optoelectronics **3**, 72 (2008).

Cuprous Oxide and Cuprous Chloride

Molecular Beam Epitaxy of CuCl Films on Mica

H. K. Wong, S.J . Gu, G. K. Wong and J. B. Ketterson

Thin Solid Films **94**, 75 (1982)

Phase Relationships in Cu-O Thin Films Prepared by Sputtering

D. J. Miller, R. P. Chiarello, H. K. Kim, T. Roberts, H. You, R. T. Kampwrith, K. E. Gray, J. Q.

Zheng, S. Williams, J. B. Ketterson and R. P. H. Chang

Appld. Phys. Lett. **59**, 3174 (1992)

Epitaxial stabilization of orthorhombic cuprous oxide films on MgO(110)

P. R. Markworth, R. P. H. Chang, Y. Sun, G. K. Wong, J. B. Ketterson

J. Mater. Res. **16**, 914 (2001).

Production of 1s quadrupole-orthoexciton polaritons in Cu₂O by two-photon pumping,

Y. Sun, G. K. L. Wong, J. B. Ketterson

Phys. Rev. B **63**, 5323 (2001).

Strain splitting of 1s yellow orthoexciton of epitaxial orthorhombic Cu₂O films on

MgO [110], Y. Sun, K. Rivkin, J . Chen, J. B. Ketterson, P. Markworth, R. P. H.

Chang, Phys. Rev. B **66** 245315 (2002).

Study of the 1s orthoexciton luminescence in Cu₂O under two-photon excitation,

Y. Sun, G. K. L. Wong and J. B. Ketterson

J. Lumin. **110**, 125 (2004).

Two-dimensional growth of continuous Cu₂O thin films by magnetron sputtering

Z. G. Yin, H. T. Zhang, D. M. Goodner, M. J. Bedzyk, R. P. H. Chang, Y. Sun, J. B.

Ketterson, Appld Phys. Lett. **86** 061901 (2005)

Measurement of photoluminescence of Cu₂O at 2 K,

Y. Zhou, G. Z. Zhang, W. H. Xiang, J. B. Ketterson,

Chinese Physics Letters **23**, 1276 (2006).

Bound excitons in Cu₂O: Efficient internal free exciton detector,

J. I. Jang, Y. Sun, B. Watkins, and J. B. Ketterson,

Physical Review B **74**, 235204 (2006)

Impact of impurities on orthoexciton-polariton propagation in Cu₂O,

J. I. Jang and J. B. Ketterson,

Physical Review B **76**, Art. No. 155210 (2007).

1 Junctions

- Evidence for two-photon generation of propagating bipolaritons in CuCl,
J. I., Jang, J. B Ketterson,, M. A Anderson,, and R. P. H Chang,,
Physical Review B **76**, Art. No. 233201 (2007).
- Anomalous two-photon generation of excitons in CuCl pellets,
J. I. Jang, M. A. Anderson, J. B. Ketterson, and R. P. H. Chang,
Appl. Phys. Lett. **92**, 051912 (2008)
- Indirect generation of quadrupole polaritons from dark excitons in Cu₂O
J. I. Jang, Y. Sun, and J. B. Ketterson,
Phys. Rev. B **77**, 075201 (2008)
- Suppression of molecule formation for orthoexciton-polaritons in Cu₂O,
J. I. Jang and J. B. Ketterson,
Solid State Communications **146**, 128 (2008).

Magnetic Semiconductors

- Room-temperature ferromagnetism in chalcopyrite Mn-doped ZnSnAs₂ single crystals
S. Choi, G. Cha, S. C Hong, S. Cho, Y. Kim, J. B. Ketterson, S. Y. Jeong, and G. C. Yi
Solid State Comm., **122** 165 (2002).
- Ferromagnetism in Mn doped Ge,
S. G. Cho, S.T. Choi S. C. Hong, Y. K. Kim. J. B. Ketterson, B. J. Kim, Y. C. Kim, and J. H. Jung,
Phys. Rev. B **66** , 033303 (2002).
- Room-temperature ferromagnetism in (Zn_{1-x}Mn_x)GeP₂ semiconductors
S. L. Cho, S. Y. Choi, G. B. Cha, S. C. Hong, Y. Kim, Y. J. Zhao, A. J. Freeman, J. B. Ketterson, B. J. Kim, Y. C. Kim, and B. C. Choi
Phys. Rev. Letters **88**, 257203 (2002).
- Ferromagnetism in Cr-doped Ge
S. Choi, S. C. Hong, S. Cho, Y. Kim, J. B. Ketterson, C. U. Jung,
K. Rhie, B. J. Kim, Y. C. Kim, Applied Physics Letters **81**, 3606 (2002).
- Mn-doped ZnGeAs₂ and ZnSnAs₂ single crystals: Growth and electrical and magnetic properties
S. Y. Choi, J. Y. Choi, S. C. Hong, S. L. Cho, Y. Kim, J. B. Ketterson
Journal of the Korean Phys. Soc. **42** S739- Suppl. S (2003).
- Ferromagnetic properties in Cr, Fe-doped Ge single crystals, S. Choi, S. C. Hong, S. L. Cho, Y. Kim, J. B. Ketterson, C. U. Jung, K. Rhie, B. J. Kim, Y. C. Kim.
J. Appld. Phys. **93** 7670 (2003).
- Synthesis of new pure ferromagnetic semiconductors: MnGeP₂ and MnGeAs₂
S. Cho, S. Choi, G. B. Cha, S. C. Hong, Y. Kim, A. J. Freeman, J. B. Ketterson,
Y. Park, and H. M. Park,
Solid State Communications **129**: 609 (2004).

I Junctions

- Magnetic anisotropy and transport properties of epitaxially grown MnAs/GaAs digital alloys, J. H. Song, Y. Cui, J. J. Lee, Y. Kim, J. B. Ketterson, S. G. Cho, Journal of Applied Physics **95** 7288-7290 Part 2, (2004).
- Electronic and magnetic properties of MnSnAs₂, S. G. Cho, S. Y. Choi, G. B. Cha, S. C. Hong, Y. Park, H. M. Park, Y. Kim, J. B. Ketterson, Physica Status Solidi B-Basic Research **241**, 1462-1465 (2004).
- Magnetic properties of MnGeAsP films grown on GaAs(100) by molecular beam epitaxy, Y. Cui, J. J. Lee, J. H. Song, L. Luan, Y. Kim, J. B. Ketterson, and S. Cho, Journal of Applied Physics **95**, 6515, Part 2 (2004).
- Ferromagnetic properties of MnAs/Ge multilayers grown by molecular beam epitaxy, J. Lee, Y. J. Cui, J. H. Song, Y. K. Kim, A. J. Freeman, J. B. Ketterson, S. Cho Journal of Applied Physics **95**, 6562 Part 2 (2004).
- Control of the magnetic anisotropy of epitaxially grown MnAs/GaAs ferromagnet-semiconductor hybrid superlattices, J. H. Song, J. J. Lee, Y-j Cui, J. B. Ketterson and S. Cho, Applied Physics Letters **85**, 4079 (2004).
- Ferromagnetism and coupling between charge carriers and magnetization at room temperature in Ge/MnAs multilayers, J. J. Lee, Y. Cui, J. H. Song, A. J. Freeman, J. B. Ketterson and S. L. Cho, Applied Physics Letters **85**, 3169 (2004).
- Electrical-transport, magneto-transport and magnetic anisotropy of epitaxially grown MnAs/GaAs hybrid multilayers, J. H. Song, J. J. Lee, Y. Cui, J. B. Ketterson, S. L. Cho, J. Mag. Mag. Mater. **286** 41(2005).
- Study on the transport properties of MnGe(As_{1-x}P_x)₂ grown on GaAs(100) Y. Cui, J. Song,,J. Lee, Y. Kim J. B. Ketterson, S. Cho J. Mag. Mag. Mater. **286** 99 (2005).
- High temperature ferromagnetism of Si/MnAs multilayers grown by molecular beam epitaxy, J. J. Lee, M. Y. Kim, J. H. Song, Y. Cui, A. J. Freeman, J. B. Ketterson, J. Mag. Mag. Mater. **286** 150 (2005).
- Room temperature ferromagnetism of Ge/MnAs digital alloys, J. J. Lee, M. Y. Kim, Y. Cui, J. H. Song, A. J. Freeman, and J. B. Ketterson J. Superconductivity **18**, 75 (2005)
- Growth-temperature dependence of magnetic and magneto-transport properties of epitaxially grown MnAs/GaAs hybrid multilayers, J. H. Song, J. J. Lee Y. Cui, J. B. Ketterson, and S. Cho, J. Superconductivity **18** 105 (2005).
- Ferromagnetism of Mn/Ge, multilayers grown by molecular beam epitaiy J. J. Lee , J. E. Medvedeva , J. H. Song , Y-j Cui, A. J. Freeman, J. B. Ketterson J. Superconductivity **18** 335 (2005).
- Room-temperature ferromagnetism in Cu-doped ZnO thin films D. B. Buchholz, R. P. H. Chang, J. H. Song, and J. B. Ketterson Appld. Phys. Lett. **87**, 082504 (2005).
- Beta-phase-domain-free alpha-MnAs thin films on GaAs(001) by post-growth annealing J. H. Song, Y. Cui, J.J. Lee, and J. B. Ketterson

1 Junctions

- Applied Physics Letters **87**, 092504 (2005).
- Magnetic and electrical-transport property variations of epitaxially grown MnAs thin films
J. H. Song, J. J., Lee Y-J Cui and J. B. Ketterson.
J. Applied Physics **97**, 10M107 Part 3 (2005).
- Magnetic and transport properties of MnGeP₂ films grown on GaAs(001) by molecular beam epitaxy, Y-j Cui, W Mu, J Lee, Song J, Kim Y, Ketterson J. B, Cho S
J. Applied Physics **97**, 10M518 Part 3 (2005).
- Magnetic properties of Ge/MnAs digital heterostructure,
J. J. Lee M. Y. Kim, J. H. Song, Y. Cui and J. B. Ketterson,
IEEE Trans. on Magnetics **43** 3034 (2007).
- Postgrowth annealing effects on heteroepitaxial MnAs thin films grown on GaAs(001) and Si(001), J. H. Song, Y. Cui, J. J. Lee, M. Y. Kim, and J. B. Ketterson,
Journal of Applied Physics **99** Art. No. 08D513 (2006).
- Growth and magnetic and electrical-transport properties of NiAs structured Mn_{1-x}Ga_xAs thin films, J. H. Song, Y. Cui, J. B. Ketterson,
Journal of Applied Physics **103**, 07D102 (2008)
- Metal-semiconductor transition and magnetic properties of epitaxially grown MnAs/GaAs superlattices, J. H. Song, Y, Cui , J. J. Lee, S. L. Cho, and J. B. Ketterson,
Journal of Applied Physics **103** 07B50 (2008).

Biophysics and Biomaterials

- Atomic force microscopy of the erythrocyte membrane skeleton
A. H. Swihart, J. M. Mikrut, J. B. Ketterson, and R. C. MacDonald
J. Micros C-Oxford **204**, 212 (2001).
- Characterization of Crystalline Hydroxyapatite, Thin Coatings for Biomedical Applications, Z. Hong, A. Mello, L. Luan, M. Farina, L. R. Andrade, C. L. Ferreira, S. Paik, B. Deng, J. Eon, J. Terra, A. M. Rossi, D. E. Ellis, and J. B. Ketterson,
Key Engineering Materials, **330-332**, 525 (2007).
- Crystalline hydroxyapatite thin films produced at room temperature-An opposing radio frequency magnetron sputtering approach, Z. D. Hong, L. Luan, S. B. Paik, B. Deng, D. E. Ellis, J. B. Ketterson, A. Mello, J. G. Eon, J. Terra, and A. Rossi,
Thin Solid Films **515**, 6773 (2007).
- Osteoblast proliferation on hydroxyapatite thin coatings produced by right angle magnetron sputtering A. Mello, Z. Hong, A. M. Rossi, L Luan, M. Farina, W. Querido, J. Eon, J. Terra, G. Balasundaram, T. Webster, A. Feinerman, D. E. Ellis, J. B. Ketterson, C. L. Ferreira, Biomedical Materials **2**, 67 (2007)

Optical tweezing of Particles

- Defect-free Optical Assembly of Polystyrene Spheres,
G. Wang, G. C. Spalding, J. B. Ketterson,

Proc. SPIE, **747**, 5514 (2004).

Dynamic control of defects in a two-dimensional optically assisted assembly,

W. Mu, G. Wang, L. Luan, G. C. Spalding, and J. B. Ketterson,

New Journal of Physics **8**: Art. No. 70 (2006).

Optical separation of particles based on a dynamic interferometer,

W. Mu,^a G. Wang,^b G. C. Spalding,^c L. Luan,^a P. West,^e H. Kyriazes, and

J. B. Ketterson. Ptoc SPIE **6326** (2006).

Force measurement and optical assisted particle separation in an optical standing wave,

W. Mu, Z. Li, P. West, L. Luan, H. Kyriazes, G. C. Spalding, G. Wang, A. Feinerman,

and J. B. Ketterson. Proc. SPIE **6666** (2007).

Force measurement on microspheres in an optical standing wave,

W. Mu, Z. Li, L. Luan, G. C. Spalding, G. Wang, and J. B. Ketterson,

Journal of the Optical Society of America B - Optical Physics **25**, 763 (2008).

A microfluidic approach to assembling ordered microsphere arrays,

W. Xu, K. Sur, H. Zeng, A. Feinerman, D. Kelso, and J. B. Ketterson,

J. Micromechanics and Microengineering **18**, (2008).

Sommerfeld Radiation

Angular radiation pattern of electric dipoles embedded in a thin film in the vicinity of a dielectric half space

L. Luan, P. R. Sievert, B. Watkins, W. Mu, Z. Hong, and J. B. Ketterson,

Applied Physics Letters **89** Art. No. 031119 (2006).

Near-field and far-field electric dipole radiation in the vicinity of a planar dielectric half space,

L. Luan, P. R. Sievert, and J. B. Ketterson

New Journal of Physics **8**: Art. No. 264 (2006).

Highly directional fluorescence emission from dye molecules embedded in a dielectric layer adjacent to a silver film,

L. Luan, P. R. Sievert, W. Mu, Z. Hong, and J. B. Ketterson,

New Journal of Physics **10**, 073012 (2008).

Miscellaneous

Fracture in One Dimension

R. W. Welland, M. Shin, D. Allen and J. B. Ketterson

Phys. Rev.B. **46**, 503 (1992)

Formation of Ultrathin Tungsten Filaments via Selective Low Pressure Chemical Vapor Deposition

H. M. Busta, A. D. Feinerman, J. B. Ketterson and G. K. Wong

J. Appl. Phys. **58** 987 (1985)

Coherent Short Wave Radiation from a Solid State Free Electron Laser

S. A. Bogacz, J. B. Ketterson and G. K. Wong

1 Junctions

Proc. of the Seventh International Conference on Free Electron Lasers ahoe City, CA., Sept. 8-13, 1984 and Journal - "Nuclear Instrumentation and Methods in Physics Research," A250,1986, pg. 328.

Possibility of Obtaining Coherent Radiation from a Solid State Undulator

S. A. Bogacz and J. B. Ketterson

J. Appl. Phys. 60, 177 (1986)

A Technique to Produce Coherent X-ray Radiation Via Laser Pumping of a Relativistic Ion Beam

S. A. Bogacz and J. B. Ketterson

Appld. Phys. Lett. 49, 311 (1986)

Possibility of Obtaining Coherent Short-Wave Radiation from a Solid State Free Electron Laser

S. A. Bogacz and J. B . Ketterson in "Optical Science and Engineering"

Institute for Electrical and Electronic Engineers, New York, Inc.

Series 7, Ed. R. G. Lerner p. 322 (1986)

Strings, loops and pyramids--building blocks for microstructures,

H. H. Busta, A. D. Feinerman, J. B. Ketterson, and R. D. Cueller

Proc. IEEE Conf. on Micro Robotics and Teleoperators (1987)

Reprinted in Micromechanics and MEMS-Classical and Seminal Papers to 1990

PATENTS

Patent U.S. #4, 413,506

Horizontal Film Balance Having Wide Range and High Sensitivity

B. M. Abraham, K. Miyano and J. B. Ketterson, Inventors, Nov. 1983.

Patent U.S. #4, 537, 065

Method and Apparatus for Measruing Shear Modulus and Viscosity of a Monomolecular Film

K. Miyano, J. B.Ketterson and B.M. Abraham, Inventors, Aug. 1985.

Patent U.S. #4, 564, 564

Superconducting Magnet Wire

I. K. Schuller, J. B. Ketteson and I. Banerjee, Inventors

Patent U.S. #4, 817,124

Charged Particle High Frequency Laser

J. B. Ketterson, S. A. Bogacz, G. K. Wong, Inventors, March, 1989

Patent U.S. #4,844,989

Superconducting Structure with Layers of Niobium Nitride and Aluminum Nitride

J. M. Murduck, J. Lepetre, Ivan K. Schuller and J. B. Ketterson, Inventors, July, 1989

1 Junctions
