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LAWRENCE BERKELEY LABORATORY

UNIVERSITY OF CALIFORNIA

Berkeley, California

Technical Information Department

**RECENT PAPERS SUBMITTED AND
REPORTS ISSUED**

MAY 1985

ACCELERATOR AND FUSION RESEARCH

Journal Submissions

- LBL-19137 Preprint (K) A Design Procedure for Acceleration and Bunching in an Ion Induction Linac, Feb. 1985, 25p. Submitted to *Part. Accel.*, C.H. Kim, and L. Smith (LBL) UC21
- LBL-19191 Preprint (K) Parametric Studies of Aladdin Lattices, Mar. 1985, 29p. To be submitted for publication, M.S. Zisman (LBL) UC28
- LBL-19350 Preprint (K) The Dynamic Aperture of Aladdin, Mar. 1985, 26p. To be submitted for publication, A. Jackson (LBL) UC32,28

Other Reports

- LBL-17550 Report (K) Report on the Engineering Test of the LBL 30 Second Neutral Beam Source for the MFTF-B Project, Aug. 1984, 56p. M.C. Vella, P.A. Pincosy, C.A. Hauck, and R.V. Pyle (LBL) UC20a
- LBL-19100 Report (K) Accelerator and Fusion Research Division 1984 Summary of Activities, May 1985, 76p. 28, UC28
- LBL-19136 Report (K) H⁻ Production in a Multicusp Microwave Plasma, Mar. 1985, 218p. Ph.D., J.R. Trow (LBL) UC20f,20g
- LBL-19513 Report (K) Cooldown of an Infinitely Long Hollow Cylinder and Application to the SSC Cooldown, Feb. 1985, 10p. S. Caspi (LBL) UC38

Abstracts

- LBL-19394 Abs. (K) Superconducting Materials for the Supercollider, Mar. 1985, 1p. To be presented at the International Cryogenic Materials Conference, Boston, MA, August 12-16, 1985, R. Scanlon (LBL) UC20B,38

- LBL-19395 Abs. (K) A 6 to 6.5 Tesla Dipole Magnet for the SSC, Mar. 1985, 1p. To be presented at the Cryogenic Engineering Conference, Boston, MA, August 12-16, 1985, C.E. Taylor, S. Caspi, W. Gilbert, W. Hassenzahl, R. Meuser, K. Mirk, C. Peters, and R. Scanlon (LBL) R. Fernow, C. Goodzeit, A. Greene, E. Kelly, G. Morgan, W. Sampson, R. Shutt, P. Wanderer, and E. Willen (BNL) UC20B
- LBL-19503 Abs. (K) Optical and Spectral Characteristics of an Insertion Device Used Both as a Wiggler and an Undulator, Apr. 1985, 2p. To be presented at the Synchrotron Radiation Instrumentation Conference, Stanford, CA, July 29-August 2, 1985, S. Brennan, P.L. Cowan, T. Jach, R. LaVilla, and H. Winick (NBS, MD) R. Perera (LBL, SSRL and NBS, MD) UC28,34
- LBL-19568 Abs. (K) Prototype Testing for the U.S. Common Long Pulse Neutral Beam Source, May 1985, 1p. To be presented at the 11th Symposium on Fusion Engineering, Austin, TX, November 18-22, 1985, M.C. Vella, O.A. Anderson, K.H. Berkner, C.F. Chan, W.S. Cooper, A.F. Lietzke, H.M. Owren, J.A. Paterson, P.A. Pincosy, R.V. Pyle, and P.D. Weber (LBL) UC20f
- LBL-19578 Abs. (K) Negative Ion Beam Acceleration and Transport Experiments, May 1985, 1p. To be presented at the 11th Symposium on Fusion Engineering, Austin, TX, November 18-22, 1985, W.S. Cooper, O.A. Anderson, J. Kwan, and W.F. Steele (LBL) UC20f

APPLIED SCIENCE

Journal Submissions

- LBL-17939 Preprint (J) Control of Respirable Particles in Indoor Air with Portable Air Cleaners, Oct. 1984, 38p. Submitted to *Atmos. Environ.*, F.J. Offermann, R.G. Sextro, W.J. Fisk, D.T. Grimsrud, W.W. Nazaroff, A.V. Nero, K.L. Revzan, and J. Yater (LBL) UC95d
- LBL-19272 (J) Ambient Temperature Supercritical Drying of Transparent Silica Aerogels, Mar. 1985, 15p. Submitted to *Mater. Lett.*, P.H. Tewari, A.J. Hunt, and K.D. Lofftus (LBL) UC95a,95d
- LBL-19371 (J) Dynamic Features of Combustion, Aug. 1984, 91p. Submitted to *Philos. Trans. R. Soc. London, Ser. A*, A.K. Oppenheim (LBL and UCB) UC34,38
- LBL-19455 Preprint (J) Determination of Nitrogen-Sulfur Compounds by Ion Chromatography, Apr. 1985, 13p. Submitted to *Anal. Chem.*, D. Littlejohn, and S.G. Chang (LBL) UC90d
- LBL-19530 (J) Letter to the Editor, Apr. 1985, 2p. Submitted to *J. Air Pollut. Control Assoc.*, G. Traynor, and J. Girman (LBL) UC95d
- LBL-19575 (J) EPR Signals of Redox Active Copper in EDTA Washed Membranes of the Cyanobacterium *Synechococcus* 6311, Mar. 1985, 16p. Submitted to *Biochem. Biophys. Res. Commun.*, I.V. Fry, G.A. Peschek, M. Huflejt, and L. Packer (LBL and UCB) UC48

LBL-19576 (J) The Free Radical Theory of Aging: A Critical Review, Apr. 1985, 57p. Submitted to *Adv. Free Radical Biol. Med.*, R.J. Mehlhorn (LBL) G. Cole (LBL and UCB) UC48

LBL-19607 Preprint (J) Horizontal Inhomogeneities in the Particulate Carbon Component of the Arctic Haze, Nov. 1984, 13p. Submitted to *Atmos. Environ.*, A.D.A. Hansen, and H. Rosen (LBL) UC11

Conference Reports/Books

LBL-16924 Report (J) A One-Channel Monitor for Wood Stove Heat Output: Project Report for the Hood River Conservation Program, Feb. 1984, 31p. Presented at the 1984 American Society for an Energy Efficient Economy Summer Study, Santa Cruz, CA, August 14-22, 1984, M.P. Modera, and B.S. Wagner (LBL) J. Shelton (LBL and Santa Fe, NM) UC95d

LBL-17001 Report (J) Comparison of Measured and Predicted Infiltration Using the LBL Infiltration Model, Feb. 1984, 34p. Presented at the ASTM Symposium on Measured Air Leakage Performance of Buildings, Philadelphia, PA, April 2-3, 1984, M.H. Sherman, and M.P. Modera (LBL) UC95d

LBL-17284 Report (J) Integrating Sphere Measurements of Directional-Hemispherical Transmittance of Window Systems, Aug. 1984, 21p. Presented at the Illuminating Engineering Society Annual Technical Conference, St. Louis, MO, August 5-7, 1984, J. Kessel, and S. Selkowitz (LBL) UC95c

LBL-17587 Report (J) Variability in Residential Air Leakage, Apr. 1984, 27p. Presented at the ASTM Symposium on Measured Air Leakage Performance of Buildings, Philadelphia, PA, April 2-3, 1984; and to be published in ASTM Special Technical Publication, M.H. Sherman (LBL) D.J. Wilson, and D.E. Kiel (LBL and Univ. Alberta, Canada) UC95d

LBL-17773 Report (J) In-Situ Measurement of Wall Thermal Performance: Data Interpretation and Apparatus Design Recommendations, Sept. 1984, 31p. Presented at the American Society for Testing Materials Symposium on Thermal Insulation, Materials and Systems, Dallas, TX, December 2-6, 1984, M.P. Modera, M.H. Sherman, and S.G. de Vinuesa (LBL) UC95d

LBL-19167 Report (J) The Application of Daylighting Research Tools to Fenestration and Building Design Optimization, Feb. 1985, 11p. Presented at Research and Design, Architectural Applications of Design and Technology Research Conference, Los Angeles, CA, March 14-18, 1985, S. Selkowitz (LBL) UC95d

LBL-19245 Report (J) Residential Window Performance Analysis Using Regression Procedures, Mar. 1985, 7p. To be presented at CLIMA 2000, World Congress on Heating, Ventilating, and Air Conditioning, Copenhagen, Denmark, August 26-29, 1985, R. Sullivan, and S. Selkowitz (LBL) UC95c

LBL-19277 Report (J) Lighting Research Program, Mar. 1985, 12p. Presented at the 12th Energy Technology Conference and Exposition, Washington, DC, March 25-27, 1985, S. Berman (LBL) UC95d

LBL-19304 Report (J) Energy Reduction Implications with Fenestration, Mar. 1985, 7p. To be presented at CLIMA 2000, World Congress on Heating, Ventilating, and Air Conditioning, Copenhagen, Denmark, August 26-29, 1985, R. Johnson, D. Arasteh, and S. Selkowitz (LBL) UC95d

LBL-19386 Report (J) The Kinetics of the Reaction of Hydrogen Sulfide and Sulfur Dioxide in Organic Solvents, July 1984, 18p. Presented at the ACS Meeting, Philadelphia, PA, August 28, 1984; and submitted to *I & EC Process Design and Development*, D.W. Neumann, and S. Lynn (LBL and UCB) UC4

Other Reports

LBL-17071 Report (J) FY 1983 Annual Report Solar Energy Program Chapter, Sept. 1984, 38p. UC62

LBL-18085 Report (J) Saving Energy the Easy Way: An Analysis of Thermostat Management, Apr. 1985, 207p. 95c, E.L. Vine (LBL) UC95c

LBL-18705 Report (J) Soot and Radiation in Free Boundary Layer Flames, Dec. 1984, 135p. Ph.D., C.I. Okoh (LBL and UCB) UC11,4

LBL-19552 Report (J) Characterization of Respirable Coal Mine Dust, May 1985, 47p. M.S., C.J. Pryor (LBL and Jackson St. Univ.) UC11,4

Abstracts

LBL-19457 Abs. (J) Light-Absorbing Combustion Particles Over Reflecting Polar Ice, Apr. 1985, 1p. To be presented at the International Symposium on Arctic Atmospheric Pollution, Cambridge, England, September 2-5, 1985, H. Rosen, and A.D.A. Hansen (LBL) UC11

BIOLOGY AND MEDICINE

Journal Submissions

LBL-18677 Preprint (B) A Two-Dimensional Diffusion Limited System for Cell Growth, Nov. 1984, 36p. Submitted to *Cell Tissue Kinet.*, L. Hlatky, and E.L. Alpen (LBL) UC48

LBL-19334 (B) Synthesis of ^{122}I and ^{125}I -Labelled *meta*-dimethoxy-N,N-dimethyliodophenylisopropylamines, Feb. 1985, 14p. Submitted to *J. Labelled Compd. Radiopharm.*, C.A. Mathis, A.T. Shulgin, and T. Sargent III (LBL) UC48

LBL-19426 (B) The Propagation of Relativistic Heavy Ions in Multielement Beam Lines, Jan. 1985, 60p. Submitted to *Med. Phys.*, W. Schimmerling, M. Rapkin, M. Wong, and J. Howard (LBL) UC34A

LBL-19434 (B) A ^{122}Xe - ^{122}I Generator for Remote Radio-Iodininations, Apr. 1985, 12p. Submitted to *Int. J. Appl. Radiat. Isot.*, C.A. Mathis, T. Sargent III, Y. Yano, and A. Vuletich (LBL and UCB) M.C. Lagunas-Solar, and L.J. Harris (UCD) UC48

- LBL-19480 (B) Wounding and Its Role in RSV-Mediated Tumor Formation, Apr. 1985, 15p. Submitted to *Science*, D.S. Dolberg, R. Hollingsworth, M. Hertle, and M.J. Bissell (LBL) UC48
- LBL-19505 (B) An Empirical Comparison of Methods Used to Estimate Carcinogenic Potency in Long-Term Animal Bioassays: Lifetable vs. Summary Incidence Data, Dec. 1984, 10p. Submitted to *Fundam. Appl. Toxicol.*, L.S. Gold, J. Kaldor, and G. Backman (LBL) L. Bernstein (USC) D. Hoel (Research Triangle Park, NC) UC48
- LBL-19533 (B) Treatment Planning Study Compares Heavy Ion Radiotherapy with Photons for Carcinoma of the Esophagus, Apr. 1985, 23p. Submitted to *Int. J. Radiat. Oncol. Biol. Phys.*, S.R. Zink, J.R. Castro, G.T.Y. Chen, J.M. Collier, J.T. Lyman, and W.M. Saunders (LBL) UC48
- LBL-19577 (B) Interaction of Human Plasma Low Density Lipoproteins with Discoidal Complexes of Apolipoprotein AI and Phosphatidylcholine: Characterization of the Interaction Products, May 1985, 26p. Submitted to *Biochim. Biophys. Acta*, Z. Shahrokh, and A.V. Nichols (LBL and UCB) UC48
- LBL-19588 (B) Safety in the Scanning Electron Microscope Laboratory, May 1985, 50p. Submitted to *Scanning*, J. Bastacky, and T.L. Hayes (LBL and UCB) UC48,41
- LBL-19605 (B) An Update on Results of Radiotherapy with Heavy Ions, Oct. 1984, 22p. Presented at the 3rd International Austropa Meeting on Progress in Radio-oncology, Vienna, Austria, March 27-31, 1985, J.R. Castro (LBL, UCSF, NCOG and RTOG) UC28,48,34C
- LBL-19606 (B) Heavy Charged Particle Irradiation of Malignant Glioma of the Brain, Oct. 1984, 17p. Submitted to *Int. J. Radiat. Oncol. Biol. Phys.*, J.R. Castro, W.M. Saunders, M.M. Austin-Seymour, K.H. Woodruff, G. Gauger, G.T.Y. Chen, J.M. Collier, and S.R. Zink (LBL, UCSF, NCOG, and RTOG, and San Pablo, CA) UC28,48,34C

Conference Reports/Books

- LBL-19433 Report (B) Overall Radio-HPLC Design, Dec. 1984, 45p. To be published as a chapter in **Analytical and Chromatographic Techniques in Radiopharmaceutical Chemistry**, D. Wiedland, ed., Springer-Verlag, Inc., New York, NY (1985), C.A. Mathis, and R.M. Jones (LBL and UCB) J.H. Chasko (LBL, UCB, and UCD) UC48
- LBL-19441 Report (B) Scanning Electron Microscope Laboratory Safety, Apr. 1985, 48p. To be published as a chapter in **Electron Microscope Laboratory Safety**, V.C. Barber, ed., Electron Microscopy Society of America, (August 1985), J. Bastacky, and T.L. Hayes (LBL) UC38
- LBL-19623 Report (B) Workshop on *In vitro* Culture Systems, May 1985, 8p. Presented at the Breast Cancer Research Conference, ICRF, London, England, March 3, 1985; and to be published in the Proceedings, R. Hallowes, and M. Stampfer (LBL and London, England) UC48
- LBL-19500 Report (B) The Role of Protein Synthesis in the Repair of Sublethal X-Ray Damage in a Mutant Chinese Hamster Ovary Cell Line, Apr. 1985, 156p. Ph.D., M.J. Yezzi (LBL and UCB) UC48

Abstracts

- LBL-19352 Abs. Report (B) Heavy Charged Particles in Research and Medicine - Abstracts/Program, May 1985, 51p. Presented at the Symposium on Heavy Charged Particles in Research and Medicine, Lawrence Berkeley Laboratory, Berkeley, CA, May 1-3, 1985, UC48

CENTER FOR ADVANCED MATERIALS

Journal Submissions

- LBL-19360 Preprint (L) Creep During Sintering of Porous Compacts, Mar. 1985, 15p. Submitted to *J. Am. Ceram. Soc.*, M.N. Rahaman, L.C. De Jonghe, and C.H. Hsueh (LBL and UCB) UC25
- LBL-19415 Preprint (L) Antisite Defects and EL2 in GaAs, Apr. 1985, 23p. Submitted to *Festkoerperprobleme*, E.R. Weber and P. Omling (LBL and UCB) UC25
- LBL-19473 Preprint (L) Electrical Properties of Dislocations and Point Defects in Plastically Deformed Silicon, Apr. 1985, 44p. Submitted to *Phys. Rev. B*, P. Omling and E.R. Weber (LBL and UCB) L. Montelius (Univ. Lund, Sweden) H. Alexander, and J. Michel (Univ. Cologne, W. Germany) UC25
- LBL-19536 (L) *In Situ* Investigation of Transport in Semiconductors: A Contactless Approach, Apr. 1985, 10p. Submitted to *Appl. Phys. Lett.*, A. Skumanich, D. Fournier, A.C. Boccara, and N.M. Amer (LBL) UC37
- LBL-19537 (L) Direct Method for the Investigation of Nonradiative Recombination in Semiconductors, Apr. 1985, 13p. Submitted to *Appl. Phys. Lett.*, H. Dersch, and N.M. Amer (LBL) UC37
- LBL-19643 Preprint (L) Structurally Heterogeneous Electrode Films of Polyacrylamide and Acrylamide/Vinylpyridine Copolymeric Gels. Mediation of Ascorbic Acid Oxidation, May 1985, 22p. Submitted to *J. Electroanal. Chem.*, J.E. Van Koppenhagen, and M. Majda (LBL and UCB) UC4

Conference Reports/Books

- LBL-19098 Revision Report (L) Profile Development in Drawn Hollow Tubes, Jan. 1985, 24p. Presented at the Polymer Processing Society Meeting, Akron, OH, March 28, 1985, B.D. Freeman, M.M. Denn, and R. Keunings (UCB and LBL) G.E. Molau, and J. Ramos (Walnut Creek, CA) UC25
- LBL-19468 Report (L) Mesh Refinement Analysis of the Flow of a Maxwell Fluid through an Abrupt Contraction, Apr. 1985, 11p. To be presented at the 4th International Conference on Numerical Methods in Laminar and Turbulent Flow, Swansea, United Kingdom, July 1985; and to be published in the Proceedings, R. Keunings (LBL) UC25
- LBL-19469 Report (L) Numerical Simulation of Moving Boundary Problems Involving Highly Elastic Fluids, Apr. 1985, 12p. To be presented at the 4th International Conference on Numerical Methods in Laminar and Turbulent Flow, Swansea, United Kingdom, July 1985; and to be published in the Proceedings, R. Keunings (LBL) UC25

LBL-19534 Report (L) Magnetically-Induced Orientation Development in Thermotropic Liquid Crystal Polymers, Apr. 1985, 3p. Presented at the ACS Symposium on Liquid Crystal Polymers, Miami, FL, April 29–May 3, 1985; R.C. Moore, M.M. Denn, and G. Marrucci (LBL and UCB) UC4,25

LBL-19538 Report (L) Characterization of the Optical and Thermal Properties of Matter by Photothermal Techniques, Apr. 1985, 12p. Invited talk presented at the Workshop on the Physical Properties of Ceramics, Soverato, Italy, September 20–23, 1984; and to be published in the Proceedings, N.M. Amer (LBL) UC37

Abstracts

LBL-19567 Abs. (L) X-Ray Topography of Silicon Solar Cells and Thin Metal Films, Apr. 1985, 1p. Presented at the Materials Research Society, 1985 Spring Meeting, San Francisco, CA, April 15–18, 1985, R.M. Fisher, and B. Martin (LBL) R.C. Dobbyn, M. Kuriyama, and D.R. Black (NBS, MD) UC25

LBL-19646 Abs. (L) Deformation of GaAs Single Crystals and Crystal Growth, May 1985, 1p. To be presented at the Eighth Regional Conference on Crystal Growth, AACG/W-8, Fallen Leaf Lake, CA, June 4-7, 1985, M. Tabache, and E.D. Bourret (LBL) G. Elliott (San Jose, CA) UC25

CHEMICAL BIODYNAMICS

Other Reports

LBL-19374 Report (D) Fuel Oils from Higher Plants, Mar. 1985, 29p. 61B, M. Calvin (LBL and UCB) UC61B

LBL-19510 Report (D) Picosecond Studies of Excited State Proton Transfer Reactions, Apr. 1985, 179p. Ph.D., S.P. Webb (LBL and UCB) UC4

COMPUTING DIVISION

Journal Submissions

LBL-19613 Preprint (P) A Look at White-Collar Personal Computing: Theme and Variations, May 1985, 10p. To be submitted for publication, D.F. Stevens (LBL) UC13,32

Conference Reports/Books

LBL-19183 Report (P) Labor Force and Unemployment Projections at the Local Level, Mar. 1985, 13p. Presented at the Population Association of America Meeting, Boston, MA, March 28–30, 1985, E.C. Schroeder (LBL) UC13

EARTH SCIENCES

Journal Submissions

- LBL-17578 (W) Surface Oxidation-Reduction Kinetics Associated with Experimental Basalt/Water Reaction at 25°C, Mar. 1984, 37p. Submitted to *Chem. Geol.*, A.F. White, A. Yee, and S. Flexser (LBL) UC11,4
- LBL-19517 (W) A Model for Steady Fluid Flow in Random Three Dimensional Networks of Disc Shaped Fractures, Mar. 1985, 47p. Submitted to *Water Resour. Res.*, J.C.S. Long, P. Gilmour, and P.A. Witherspoon (LBL) UC11

Conference Reports/Books

- LBL-18268 Report (W) Modeling of Geothermal Systems, Mar. 1985, 20p. Presented at the Society of Petroleum Engineers 1985 California Regional Meeting, Bakersfield, CA, March 27-29, 1985, G.S. Bodvarsson, K. Pruess, and M.J. Lippmann (LBL) UC66a
- LBL-18850 Report (W) A Comparative Study of a Heat and Fluid Flow Problem Using Three Models of Different Levels of Sophistication, May 1985, 15p. To be presented at the Fifth International Conference on Mathematical Modelling, Berkeley, CA, July 29-31, 1985; and submitted to *Mathematical Modelling*, C. Doughty, and C.-F. Tsang (LBL) UC66a
- LBL-19150 Report (W) Two-Dimensional Inversion of Resistivity Monitoring Data from the Cerro Prieto Geothermal Field, Mar. 1985, 8p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, N.E. Goldstein, Y. Sasaki, and M.J. Wilt (LBL) UC66b
- LBL-19193 Report (W) A New Method for Evaluating Composite Reservoir Systems, Mar. 1985, 6p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, S.M. Benson, and C.H. Lai (LBL) UC66a
- LBL-19321 Report (W) Electromagnetic Soundings for Geothermal Resources in Dixie Valley, Nevada, Mar. 1985, 6p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, M.J. Wilt, and N.E. Goldstein (LBL) UC66b
- LBL-19364 Report (W) Analysis of Nonisothermal Injection and Falloff Tests in Layered Reservoirs, Mar. 1985, 8p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, S.E. Halfman, and S.M. Benson (LBL) UC66a
- LBL-19365 Report (W) Enthalpy Transients in Fractured Two-Phase Geothermal Systems, Mar. 1985, 8p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, M.J. Lippmann, G.S. Bodvarsson, and S.W. Gaulke (LBL) UC66a
- LBL-19366 Report (W) A Quantitative Model of Vapor Dominated Geothermal Reservoirs as Heat Pipes in Fractured Porous Rock, Mar. 1985, 9p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, K. Pruess (LBL) UC66a

LBL-19367 Report (W) A Summary of Modeling Studies of the East Oikaria Geothermal Field, Kenya, Mar. 1985, 7p. To be presented at the Geothermal Resources Council 1985 International Symposium on Geothermal Energy, Kailua Kona, HI, August 26-30, 1985, G.S. Bodvarsson and K. Pruess (LBL) V. Stefansson and S. Bjornsson (Reykjavik, Iceland) S.B. Ojiambo (Nairobi, Kenya) UC66a

LBL-19569 Report (W) Status of the Cerro Prieto Project, Oct. 1984, 24p. Published in the Proceedings of the Geothermal Review Program Review III, El Centro, CA, October 16-19, 1984, M.J. Lippmann (LBL) A. Mañón (Mexicali, Mexico) UC66a,66b

LBL-17953 Report (W) Analysis of Injection Tests in Liquid-Dominated Geothermal Reservoirs, Dec. 1984, 119p. M.S., S.M. Benson (LBL and UCB) UC66a

LBL-18520 Report (W) Technology Transfer Report: Feasibility Study for the Use of Geothermal Brine in the Ashdod Area, Israel, Aug. 1984, 39p. S.M. Benson (LBL) UC66g

LBL-18526 Report (W) Hydrology and Geochemistry of the Uranium Mill Tailings Pile at Riverton Wyoming. Part II. History Matching, Feb. 1985, 82p. T.N. Narasimhan, A.F. White, and T. Tokunaga (LBL) UC11

ENGINEERING DIVISION

Conference Reports/Books

LBL-18711 Report (E) Stochastic Beam Cooling Amplifier System Front End Components Performance Characteristics, May 1985, 11p. Presented at the 1985 Particle Accelerator Conference, Vancouver, B.C., Canada, May 13-16, 1985; and to be published in *Transactions on Nuclear Science*, NS-32, No. 4, C.C. Lo (LBL) UC28

LBL-19291 Report (E) Nanosecond Fluorescence Spectroscopy, Mar. 1985, 10p. Presented at the IEEE Symposium on Timing Spectroscopy, Orlando, FL, October 30, 1984; and to be published in *IEEE Transactions on Nuclear Science*, NS-32, No. 3, pp. 1232-1241, June 1985, B. Leskovar (LBL) UC37

LBL-19554 Report (E) Beam Position Monitor System for Storage Rings, May 1985, 3p. Presented at the 1985 Particle Accelerator Conference, Vancouver, B.C., Canada, May 12-16, 1985; and to be published in *IEEE Transactions on Nuclear Science*, M. Nakamura, and J.A. Hinkson (LBL) UC28,37

FACILITIES MANAGEMENT AND TECHNICAL SERVICES DIVISION

Other Reports

LBL-19345 Report (A) Annual Environmental Monitoring Report of the Lawrence Berkeley Laboratory, Apr. 1985, 40p. 41, UC41

MATERIALS AND MOLECULAR RESEARCH

Journal Submissions

- LBL-16094 Rev. Preprint (O) Effect of Residual Water in Propylene Carbonate on Films Formed on Lithium, Apr. 1985, 24p. Submitted to *J. Electrochem. Soc.*, G. Nazri, and R.H. Muller (LBL) UC94c
- LBL-18197 Rev. Preprint (O) Composition of Surface Layers on Li Electrodes in PC, LiClO₄ of Very Low Water Content, Apr. 1985, 24p. Submitted to *J. Electrochem. Soc.*, G. Nazri, and R.H. Muller (LBL) UC94c
- LBL-18621 (H) Low-Lying Electronic States of Nitrosyl Cyanide (NCNO): An *Ab Initio* MCHF Study, May 1985, 20p. Submitted to *J. Chem. Phys.*, M. Dupuis (LBL) W.A. Lester, Jr. (LBL and UCB) UC4
- LBL-18762 (I) Zero Field NMR. of Solid Di- μ -hydrido-decacarbonyltriosmium, Dec. 1984, 22p. Submitted to *J. Am. Chem. Soc.*, D.B. Zax, A. Bielecki, M.A. Kulzick, E.L. Muetterties, and A. Pines (LBL and UCB) UC4
- LBL-18790 (I) Viscoelastic Stresses and Sintering Damage in Heterogeneous Powder Compacts, Mar. 1985, 49p. Submitted to *Acta Metall.*, C.H. Hsueh, A.G. Evans, and R.M. Cannon (LBL and UCB) R.J. Brook (Leeds Univ., England) UC25
- LBL-18869 (H) Systematic Study of Molecular Anions within the Self-Consistent-Field Approximation: OH⁻, CN⁻, C₂H⁻, NH₂⁻, and CH₃⁻, Dec. 1984, 43p. Submitted to *J. Chem. Phys.*, T.J. Lee, and H.F. Schaefer III (LBL and UCB) UC4
- LBL-18906 (I) High Resolution, High Voltage, and Analytical Electron Microscopy, Feb. 1985, 6p. Submitted to *J. Met.*, Vol. 37, No. 2, Feb. 1985, p. 36-41, R. Gronsky, G. Thomas, and K.H. Westmacott (LBL) UC37
- LBL-19005 (I) Gases: A. Spectroscopy of Interest to High Temperature Chemistry. B. Reactions between Gases and Condensed Phases, Jan. 1985, 154p. Submitted to *IUPAC Bibliogr. High Temp. Chem. Phys. Mater.*, L. Brewer (LBL) UC4
- LBL-19081 (I) The Influence of Heterogeneities on Sintering Behavior, Mar. 1985, 17p. Submitted to *J. Am. Ceram. Soc.*, C.H. Hsueh, and A.G. Evans (LBL) UC25
- LBL-19103 (H) Inter- and Intramolecular Oxidative Addition of Phosphine, Methane, Alkane and Alkene C-H Bonds to Rhenium, Jan. 1985, 9p. Submitted to *J. Am. Chem. Soc.*, R.G. Bergman, P.F. Seidler, and T.T. Wenzel (LBL) UC4
- LBL-19133 Preprint (I) Initial Stages of the Pd-GaAs Reaction: Formation and Decomposition of Ternary Phases, Apr. 1985, 35p. Submitted to *Thin Solid Films*, T. Sands, and V.G. Keramidas (Murray Hill, N.J.) R. Gronsky, and J. Washburn (LBL) UC25
- LBL-19156 Preprint (O) Elevated Temperature Combined Erosion-Corrosion of Steels, Apr. 1985, 65p. Submitted to *Wear*, A. Levy, E. Slamovich, and N. Jee (LBL) UC25

- LBL-19201 Preprint (O) The Kramers-Kronig Relations and Evaluation of Impedance for a Disk Electrode, Apr. 1985, 20p. Submitted to *J. Electrochem. Soc.*, M.M. Jaksic, and J. Newman (LBL and UCB) UC94c
- LBL-19335 Report (O) Microcomputer-Multichannel Analyzer Data System for Foreground-Background Data Collection and Analysis, Apr. 1985, 9p. Submitted to *J. Vac. Sci. Technol.*, B.C. Beard, D. Dahlgren, and P.N. Ross, Jr. (LBL) UC4
- LBL-19355 (H) Insertion of Iridium into the C-H Bonds of Alkenes: The π -Complex Cannot Be an Intermediate, Mar. 1985, 12p. Submitted to *J. Am. Chem. Soc.*, P.O. Stoutland, and R.G. Bergman (LBL) UC4
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- LBL-19440 Preprint (N) Structure of Tris(methylcyclopentadienyl)uranium(III)thiophene ($\text{CH}_3\text{C}_5\text{H}_4$)₃U(SC₄H₈), Apr. 1985, 14p. Submitted to *Acta Crystallogr.*, Sec. C, A. Zalkin, and J.G. Brennan (LBL and UCB) UC4
- LBL-19442 Preprint (I) A Simple Model for the Prediction of Coherent and Semicoherent Plate Precipitate Habit Planes, Apr. 1985, 28p. Submitted to *Acta Metall.*, U. Dahmen, and K.H. Westmacott (LBL) UC25
- LBL-19454 Preprint (H) Surface Structure Sensitivity of Alloy Catalysis: Catalytic Conversion of n-Hexane over Au-Pt(111) and Au-Pt(100) Alloy Crystal Surfaces, Apr. 1985, 13p. Submitted to *J. Catal.*, R. Yeates, and G.A. Somorjai (LBL and UCB) UC25
- LBL-19471 Preprint (N) Redetermination and Absolute Configuration of Sodium Uranyl Acetate, Apr. 1985, 15p. Submitted to *Acta Crystallogr.*, Sect. C, D.H. Templeton, A. Zalkin, H. Ruben, and L.K. Templeton (LBL and UCB) UC4
- LBL-19521 Preprint (I) The Temperature Dependence of Hyperfine Magnetic Fields in Fe-Ni, Apr. 1985, 22p. Submitted to *Phys. Rev. B*, B. Fultz, and J.W. Morris, Jr. (LBL and UCB) UC25
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- LBL-19543 Preprint (I) Generation of Intense Tunable Picosecond Pulses in the Far-Infrared, Apr. 1985, 14p. Submitted to *Appl. Phys. Lett.*, M. Berg, C.B. Harris, T.W. Kenny, and P.L. Richards (LBL and UCB) UC34
- LBL-19555 (H) Quantum Mechanical Reactive Scattering via Exchange Kernels: Infinite Order Exchange on a Grid, Jan. 1985, 42p. Submitted to *J. Chem. Phys.*, P.S. Dardi, S. Shi, and W.H. Miller (LBL and UCB) UC4
- LBL-19556 (H) The Open Chain or Chemically Bonded Structure of H₂O₄, the Hydroperoxyl Radical Dimer, Apr. 1985, 36p. Submitted to *J. Chem. Phys.*, G. Fitzgerald, T.J. Lee, and H.F. Schaefer III (LBL and UCB) R.J. Bartlett (Univ. Florida) UC4
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- LBL-19558 (H) A Full Coupled Cluster Singles, Doubles and Triples Model for the Description of Electron Correlation, Oct. 1984, 40p. Submitted to *J. Chem. Phys.*, M.R. Hoffmann, and H.F. Schaefer III (UCB) UC4
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- LBL-19656 (I) Signal and Noise Theory for a DC SQUID Amplifier, Apr. 1985, 18p. Submitted to *J. Low Temp. Phys.*, J.M. Martinis, and J. Clarke (LBL and UCB) UC37
- LBL-19657 (I) Measurements of the Dynamic Input Impedance of a DC SQUID, Apr. 1985, 50p. Submitted to *J. Low Temp. Phys.*, C. Hilbert, and J. Clarke (LBL and UCB) UC37
- LBL-19658 (I) DC SQUIDS as Radiofrequency Amplifiers, May 1985, 36p. Submitted to *J. Low Temp. Phys.*, C. Hilbert, and J. Clarke (LBL and UCB) UC37
- LBL-19659 (I) Surface Studies by Optical Second Harmonic Generation: An Overview, Mar. 1985, 13p. Submitted to *J. Vac. Soc. Jpn.*, Y.R. Shen (LBL and UCB) UC25,37
- LBL-19660 (I) Correlation between Thermal Desorption Spectroscopy and Optical Second Harmonic Generation for Monitoring Surface Coverages, Apr. 1985, 13p. Submitted to *Surf. Sci.*, X.D. Zhu, and Y.R. Shen (LBL and UCB) R. Carr (SSRL-SLAC) UC25,37
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- LBL-19662 (H) NMR Spectra of (C₅(CH₃)₅)IrH₂SiMe₃Li(pmdeta) and (C₅(CH₃)₅)IrH₃Li(pmdeta): The First Direct Observation of Resolved ⁷Li-¹H Coupling, May 1985, 9p. Submitted to *J. Am. Chem. Soc.*, T.M. Gilbert, and R.G. Bergman (LBL) UC4

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- LBL-19452 Report (I) A Model of Amorphous Silicon Layer Regrowth, Apr. 1985, 8p. Presented at the Materials Research Society 1985 Spring Conference, San Francisco, CA, April 15–18, 1985, P. Ling, and J. Washburn (LBL) UC25
- LBL-19466 Report (I) The Formation of Amorphous Silicon by Light Ion Damage, Apr. 1985, 8p. Presented at the Materials Research Society 1985 Spring Conference, San Francisco, CA, April 15–18, 1985, Y. Shih, J. Washburn, E.R. Weber, and R. Gronsky (LBL) UC25
- LBL-19572 Report (H) Oxidative Addition of Organotransition Metal Complexes to the C-H Bonds in Organic Molecules, Apr. 1985, 6p. Presented at the Catalytica, Inc. Workshop on Carbon-Hydrogen Activation, Sanibel Island, FL, April 27–28, 1985, R.G. Bergman (LBL) UC4
- LBL-19583 Report (H) Theoretical Studies of Molecular Interactions, May 1985, 4p. To be presented at the DOE/BES Combustion Contractors' Meeting, Lake Geneva, WI, May 22–24, 1985, W.A. Lester, Jr. (LBL and UCB) UC4

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- LBL-19021 Report (I) Rearrangement During Sintering of Two Dimensional Arrays of Spheres, Apr. 1985, 123p. M.S., M.W. Weiser (LBL and UCB) UC94c
- LBL-19286 Report (I) Atomic Mechanisms of γ' Precipitate Plate Growth in the Al-Ag System, Mar. 1985, 323p. Ph.D., J.M. Howe (LBL and UCB) UC25
- LBL-19384 Report (O) Catalytic Gasification of Graphite or Carbon: Quarterly Report, January 1–March 31, 1985, Mar. 1985, 14p. 90d, H. Heinemann (LBL) UC90d
- LBL-19444 Report (H) Transition-Metal Mediated Formation and Cleavage of Carbon-Hydrogen Bonds: Hydrogenolysis of Trinuclear Alkylidyne Clusters and Oxidative Addition of Carbon-Hydrogen Bonds to Rhenium, Mar. 1985, 190p. Ph.D., P.F. Seidler (LBL and UCB) UC4
- LBL-19459 Report (H) A Photoelectron Spectroscopic Study of Bonding in Inorganic and Organometallic Compounds, May 1985, 162p. Ph.D., D.B. Beach (LBL and UCB) UC4
- LBL-19479 Report (I) Itinerant Magnetism and Its Characterization in Heterogeneous Systems, Apr. 1985, 159p. Ph.D., R.H. Victora (LBL) UC25
- LBL-19621 Report (O) The Performance and Electrochemical Behavior of Fluidized Bed Electrodes, May 1985, 186p. Ph.D., T. Huh (LBL and UCB) UC94cd

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- LBL-19372 Abs. (I) Structure of the Si-GaAs Interface: Polar on Nonpolar Epitaxy, Feb. 1985, 2p. To be presented at the 44th Annual Meeting of the Electron Microscopy Society of America, Louisville, KY, August 5-9, 1985, J.H. Mazur, and J. Washburn (LBL) T. Henderson, J. Klem, W.T. Masselink, R. Fischer, and H. Morkoç (Univ. Illinois) UC25
- LBL-19585 Abs. (H) Fixed-Node Quantum Monte Carlo Study of Atomic and Molecular Properties, Apr. 1985, 1p. Presented at the Seventh Annual West Coast Theoretical Chemistry Conference, Livermore, CA, April 10-12, 1985, R.N. Barnett, and W.A. Lester, Jr. (LBL and UCB) P.J. Reynolds (LBL) UC4
- LBL-19586 Abs. (H) Theoretical Study of the $H + O_2 \rightleftharpoons OH + O_2 \rightleftharpoons O + HO_2$ System, Apr. 1985, 1p. Presented at the Seventh Annual West Coast Theoretical Chemistry Conference, Livermore, CA, April 10-12, 1985, M. Dupuis, and G.B. Fitzgerald (LBL) B.L. Hammond, W.A. Lester, Jr., and H.J. Schaefer III (LBL and UCB) UC4
- LBL-19651 Abs. (I) DC SQUIDS as Radiofrequency Amplifiers, Apr. 1985, 1p. To be presented at the US-Japan Workshop on Josephson Junction Electronics, Kauai, HI, June 17-19, 1985, J. Clarke (LBL and UCB) UC25,37
- LBL-19652 Abs. (I) Quantum Effects in the Zero Voltage State of the Current Biased Josephson Junction, May 1985, 1p. To be presented at the 3rd International Conference on Superconducting Quantum Devices, Berlin, Germany, June 25-28, 1985, J. Clarke, M. Devoret, D. Esteve, and J. Martinis (LBL and UCB) UC34D,38
- LBL-19653 Abs. (I) Application of a DC SQUID to RF Amplification: NQR, May 1985, 1p. To be presented at the 3rd International Conference on Superconducting Quantum Devices, Berlin, Germany, June 25-28, 1985, C. Hilbert, and J. Clarke (LBL and UCB) T. Sleator, and E.L. Hahn (UCB) UC37
- LBL-19654 Abs. (I) Macroscopic Quantum Effects in the Zero Voltage State of a Current Biased Josephson Junction, May 1985, 1p. To be presented at the Europhysics Study Conference on Tunnelling at Low Temperatures: Fundamentals and Applications, Leuven, Belgium, August 25-30, 1985, J. Clarke, D. Esteve, M. Devoret, and J. Martinis (LBL and UCB) UC34D,38
- LBL-19655 Abs. (I) Macroscopic Quantum Tunneling and Quantized Energy Levels in the Zero Voltage State of the Current Biased Josephson Junction, May 1985, 1p. To be presented at the Workshop on the Josephson Effect—Achievements and Trends, Torino, Italy, September 16-21, 1985, J. Clarke (LBL) UC34,38

NUCLEAR SCIENCE

Journal Submissions

- LBL-16000 Preprint (S) Pion Production Near Mid-Rapidity in High Energy Heavy Ion Collisions, Apr. 1985, 48p. Submitted to *Phys. Rev. C*, K.A. Frankel, J.A. Bistirlich, R. Bossingham, H.R. Bowman, K.M. Crowe, C.J. Martoff, D.L. Murphy, J.O. Rasmussen, J.P. Sullivan, E. Yoo, and W.A. Zajc (LBL) J.P. Miller (Boston Univ.) O. Hashimoto, and M. Koike (Univ. of Tokyo and LBL) J. Péter (Orsay, France) W. Benenson, G.M. Crawley, E. Kashy, and J.A. Nolen, Jr. (Michigan St. Univ.) J. Quebert (Univ. Bordeaux, France)

UC34C,34D

- LBL-19221 Preprint (S) A New Sphaleron in the Weinberg-Salam Theory?, Feb. 1985, 29p. Submitted to *Phys. Rev. D*, F.R. Klinkhamer (LBL) UC34D
- LBL-19428 Preprint (S) Measuring the Muon Neutrino Mass with Binary Pulsars, Apr. 1985, 5p. To be submitted for publication, S. Carlson (LBL and UCB) UC34B,34D
- LBL-19451 Preprint (S) The ω Meson Also May Be a Dynamical Gauge Boson, Apr. 1985, 9p. Submitted to *Phys. Rev. Lett.*, F.R. Klinkhamer (LBL) UC34D
- LBL-19562 Preprint (S) On the Emergence of a $U(2) \times U(2)$ Gauge Theory for Low Energy Mesons, Apr. 1985, 9p. Submitted to *Phys. Lett. B*, F.R. Klinkhamer (LBL) UC34C,34D
- LBL-18944 Preprint (S) Gamma-Ray Production Cross Sections for Alpha-Particle Induced Reactions on ^{19}F and ^{23}Na , May 1985, 4p. Presented at the International Conference on Nuclear Data for Basic and Applied Science, Sante Fe, NM, May 13-17, 1985, E.B. Norman (LBL and Univ. Washington) K.T. Lesko, T.E. Chupp, P. Schwalbach, and M.A. De Faccio (Univ. Washington) UC34C,28

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- LBL-19125 Report (S) Transfer Involving Deformed Nuclei, Mar. 1985, 16p. Invited talk presented at the Niels Bohr Centennial Symposium on Semi-classical Descriptions of Atomic and Nuclear Collisions, Copenhagen, Denmark, March 25-28, 1985; and to be published in the Proceedings, J.O. Rasmussen (LBL) M.W. Guidry (Univ. Tenn. and ORNL) L.F. Canto (Fed. Univ. Rio de Janeiro, Brazil) UC34D
- LBL-19222 Report (S) Friction in Nuclear Dynamics, Mar. 1985, 34p. Invited talk presented at the Niels Bohr Centennial Symposium on Semi-classical Descriptions of Atomic and Nuclear Collisions, Copenhagen, Denmark, March 25-28, 1985; and to be published in the Proceedings, W.J. Swiatecki (LBL) UC34D

Other Reports

- LBL-18635 Report (S) Nuclear Science Division 1983-1984 Annual Report, May 1985, 262p. 34, UC34
- LBL-19482 Report (S) Non-Collective High-Spin States in ^{148}Dy , Apr. 1985, 250p. Ph.D., E.L. Dines (LBL and UCB) UC34C

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- LBL-19450 Abs. (S) Table of Radioactive Isotopes, Apr. 1985, 1p. To be presented at the American Chemical Society Meeting, Chicago, IL, September 8-14, 1985, R.B. Firestone, and E. Browne (LBL) UC4

PHYSICS

Journal Submissions

- LBL-18668 Revision Preprint (F) Light Cone Formulation of N=2 Yang Mills, Mar. 1985, 14p. Submitted for publication, A. Smith (LBL) UC32
- LBL-18707 (F) Searches for Unstable Neutral Leptons in Low Multiplicity Events from Electron-Positron Annihilation, Nov. 1984, 20p, SLAC-PUB-3515. Submitted to *Phys. Rev. D*, M.L. Perl, T. Barklow, A.M. Boyarski, M. Breidenbach, P.R. Burchat, D.L. Burke, J.M. Dorfan, G.J. Feldman, L. Gladney, G. Hanson, K. Hayes, R.J. Hollebeek, W.R. Innes, J.A. Jaros, D. Karlen, A.J. Lankford, R.R. Larsen, B.W. LeClaire, N.S. Lockyer, V. Lüth, C. Matteuzzi, R.A. Ong, B. Richter, K. Riles, M.C. Ross, D. Schlatter, J.M. Yelton, and C. Zaiser (SLAC) G.S. Abrams, D. Amidei, A.R. Baden, J. Boyer, F. Butler, G. Gidal, M.S. Gold, G. Goldhaber, L. Golding, J. Haggerty, D. Herrup, I. Juricic, J.A. Kadyk, M.E. Nelson, P.C. Rowson, H. Schellman, W.B. Schmidke, P.D. Sheldon, C. de la Vaissiere, and D.R. Wood (LBL and UCB) M.E. Levi, and T. Schaad (Harvard Univ.) UC34C,34D
- LBL-19387 (F) Measurement of the Branching Fraction for $\tau^- \rightarrow 5\pi^\pm(\pi^0)\nu_\tau$ and an Upper Limit on the ν_τ Mass, Mar. 1985, 7p., SLAC-PUB-3602. Submitted to *Phys. Rev. Lett.*, P.R. Burchat, W.B. Schmidke, J.M. Yelton, G. Abrams, D. Amidei, A.R. Baden, T. Barklow, A.M. Boyarski, J. Boyer, M. Breidenbach, D.L. Burke, F. Butler, J.M. Dorfan, G.J. Feldman, G. Gidal, L. Gladney, M.S. Gold, G. Goldhaber, L. Golding, J. Haggerty, G. Hanson, K. Hayes, D. Herrup, R.J. Hollebeek, W.R. Innes, J.A. Jaros, I. Juricic, J.A. Kadyk, D. Karlen, A.J. Lankford, R.R. Larsen, B.W. LeClaire, M. Levi, N.S. Lockyer, V. Lüth, C. Matteuzzi, M.E. Nelson, R.A. Ong, M.L. Perl, B. Richter, K. Riles, M.C. Ross, P.C. Rowson, T. Schaad, H. Schellman, P.D. Sheldon, G.H. Trilling, C. de la Vaissiere, D.R. Wood, and C. Zaiser (SLAC, LBL, UCB, and Harvard Univ.) UC34C,34D
- LBL-19431 (F) Three Weak Gauge Boson Production at the SSC, Mar. 1985, 23p. Submitted to *Nucl. Phys. B*, M. Golden (LBL and UCB) S.R. Sharpe (Harvard Univ.) UC34D
- LBL-19495 Preprint (F) Simultaneous Measurements of Atmospheric Emissions at 10, 33, and 90 GHz, Nov. 1984, 18p. Submitted to *Radio Sci.*, J.B. Costales, G.F. Smoot, C. Witebsky, G. De Amici, and S.D. Friedman (LBL) UC34B
- LBL-19566 Preprint (F) Baryon Production in e^+e^- Annihilation at $\sqrt{s} = 29$ GeV: Clusters, Diquarks, Popcorn?, Apr. 1985, 16p. Submitted for publication, H. Aihara, M. Alston-Garnjost, J.A. Bakken, A. Barbaro-Galtieri, A.V. Barnes, B.A. Barnett, H.-U. Bengtsson, B.J. Blumenfeld, A.D. Bross, C.D. Buchanan, O. Chamberlain, C-Y. Chien, A.R. Clark, A. Cordier, O.I. Dahl, C.T. Day, K.A. Derby, P.H. Eberhard, D.L. Fancher, H. Fujii, T. Fujii, B. Gabioud, J.W. Gary, W. Gorn, N.J. Hadley, J.M. Hauptman, W. Hofmann, J.E. Huth, J. Hysten, T. Kamae, H.S. Kaye, R.W. Kenney, L.T. Kerth, R.I. Koda, R.R. Kofler, K.K. Kwong, J.G. Layter, C.S. Lindsay, S.C. Loken, X.Q. Lu, G.R. Lynch, L. Madansky, R.J. Madaras, K. Maruyama, J.N. Marx, J.A.J. Matthews, S.O. Melnikoff, W. Moses, P. Nemethy, D.R. Nygren, P.J. Oddone, D.A. Park, A. Pevsner, M. Pripstein, P.R. Robrish, M.T. Ronan, R.R. Ross, F.R. Rouse, R.R. Sauerwein, G. Shapiro, M.D. Shapiro, B.C. Shen, W.E. Slater, M.L. Stevenson, D.H. Stork, H.K. Ticho, N. Toge, R.F. van Daalen Wetters, G.J. VanDalen, R. Van Tyen, E.M. Wang, M.R. Wayne, W.A. Wenzel, H. Yamamoto, M. Yamauchi, and W-M. Zhang (LBL, UCLA, UCR, John Hopkins U., U. Mass., U. Tokyo, Japan) UC34D

LBL-19622 Preprint (F) Atmospheric Emission Variation Measurements at 3, 0.9, and 0.33 cm Wavelength, May 1985, 20p. Submitted to *Radio Sci.*, G.F. Smoot, S.M. Levin, G. De Amici, and C. Witebsky (LBL and UCB) UC34B

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LBL-19417 Report (F) The GGLP Effect from 1959 to 1984, Apr. 1985, 27p. Presented at the 1st International Workshop on Local Equilibrium in Strong Interaction Physics, Bad Honnef, Federal Republic of Germany, September 3-6, 1984, G. Goldhaber (LBL and UCB) UC34C

LBL-19461 Report (F) A High Spatial Resolution Positron Emission Tomograph with a 2π Solid Angle Coverage, Jan. 1985, 2p. Submitted to the XIV ICMBE and VII ICMP, ESPOO, International Conference on Medical Physics, Helsinki, Finland, August 1985, M. Conti, A. Del Guerra, C. Rizzo, G. Schwartz, (Univ. di Pisa, Italy) G.K. Lum, and V. Perez-Mendez (LBL) R. Porinelli (Pisa, Italy) UC37

Other Reports

LBL-00091 Revision Report (F) Current Experiments in Elementary Particle Physics, Jan. 1985, 45p. 34D, C.G. Wohl, F.E. Armstrong, A. Rittenberg, T.G. Trippe, and G.P. Yost (LBL) Y. Oyanagi (Univ. Tsukuba, Japan) D.C. Dodder (LANL) S.N. Grudtsin, and Yu.G. Ryabov (Moscow, USSR) R. Frosch (Villigen, Switzerland) A. Olin (TRIUMF) F. Lehar (Gif-sur-Yvette, France) A.A. Vorobiev (Leningrad, USSR) B.P. Barkov (Moscow, USSR) UC34D

LBL-19340 Report (F) An Automated Search for Supernovae, Nov. 1984, 167p. Ph.D., J.T. Kare (LBL and UCB) UC34B

LBL-19663 Report (F) Development of Small-Diameter Lead-Glass-Tube Matrices for Gamma-Ray Conversion in Positron Emission Tomography, May 1985, 82p. M.S., G.M. Schwartz (LBL and UCB) UC37

Abstracts

LBL-19665 Abs. (F) Detection of Charged Particles in Amorphous Silicon Layers, May 1985, 4p. To be presented at the 1985 IEEE Nuclear Science Symposium, San Francisco, CA, October 23-25, 1985, S.N. Kaplan, J.R. Morel, T.A. Mulera, V. Perez-Mendez, and G. Schnurmacher (LBL) R.A. Street (Palo Alto, CA) UC37

LBL-19666 Abs. (F) Further Measurements of Electron Transmission and Avalanche Gain in Narrow Lead Glass Tubing, May 1985, 4p. To be presented at the 1985 IEEE Nuclear Science Symposium, San Francisco, CA, October 23-25, 1985, I. Fujieda, T.A. Mulera, and V. Perez-Mendez (LBL) A. Del Guerra (Pisa, Italy) UC37

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