

# ROBERT C. DYNES

Born: November 8, 1942  
Ontario Canada  
U.S. Citizenship 1984

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## Education

1964 B.Sc. Mathematics and Physics, University of Western Ontario  
1965 M.Sc. Physics, McMaster University  
1968 Ph.D. Physics, McMaster University

## Professional Experience

**1968 – 1990 AT&T Bell Laboratories -- Murray Hill, New Jersey**  
1968 - 1970 Postdoctoral Fellow  
1970 - 1974 Member of Technical Staff  
1974 - 1981 Department Head, Semiconductor & Chemical Physics Research  
Founder, AT & T Fellowship Program for Graduate Education  
1981 - 1983 Department Head, Solid State & Physics of Materials Research  
1983 - 1990 Director, Chemical Physics Research

**1990 – Present University of California**  
1990 - 2004 Professor of Physics, University of California, San Diego  
1994 - 1995 Chair, Department of Physics  
1995 - 1996 Senior Vice Chancellor, Academic Affairs  
1996 – 2003 Chancellor, University of California, San Diego  
2003 – Present President, University of California  
2004 – Present Professor of Physics, University of California, Berkeley

## Academic Honors

1978 Named Fellow of American Physical Society  
1989 Named Fellow of Canadian Institute of Advanced Research  
1989 Elected to National Academy of Sciences  
1990 Awarded international Fritz London Memorial Prize  
1994 Elected to American Academy of Arts and Sciences  
1997 Awarded Honorary D.Sc. Degree, McMaster University

## Current Professional Activities

California Chamber of Commerce: Director  
California Commission for Jobs and Economic Growth  
National Academy of Sciences: Councilor and Executive Committee Member  
National Council on Competitiveness Member  
San Diego Science and Technology Council – Founding Member  
Texas Center for Superconductivity, University of Houston -- Advisory Board

**Policy Speeches, Testimony & Publications – Partial List:**

January 13, 2004 California Community Colleges Board of Governors: Remarks on the value of intersegmental cooperation.

December 1, 2003 UCLA Budget Forum: Closing remarks on the centrality of higher education to California's future.

October 23, 2003 Expanding Opportunity in Higher Education Conference: Welcoming remarks.

April 14, 2003 "Restrictions on Research Publication": Discussant at Association of American Universities' Plenary Session on Homeland Security.

March 20, 2003 "Arts and Education: A Fruitful Partnership": Remarks at the City of San Diego's inaugural "State of Arts and Culture in San Diego" Convocation

March 12, 2003 Joint Session of California and New Mexico Senates; Testimony before Select Committee on Oversight of the Department of Energy Laboratories operated by the University of California.

March 10, 2003 "Scientific Openness vs. National Security": Presentation at the Association of American Universities' Conference on Classified Research

March 6, 2003 "Developing Responsive Curricula" and "The Future of UC Professional Schools": Remarks at the UC Riverside Academic-Community Roundtable, held in conjunction with the Inauguration of Chancellor France Córdova.

January 28, 2003 White House Town Hall Meeting in San Diego: Opening Remarks on Cybersecurity

January 27, 2003 "The UC-Community Colleges Partnership": Remarks at the Business-Higher Education Forum in San Diego

November 5, 2002 "Growing Up Under Blue Skies": Remarks at the inaugural meeting of the international Project Asian Brown Cloud

June 6, 2002 "UC Staff: A Valuable University Asset": Address to the Council of University of California Staff Assemblies

May 2, 2002 "UCSD and San Diego: Partners in Innovation": Remarks before the National Alliance for Regional Stewardship

February 21, 2002 U.S. Congress – Testimony on "Homeland Security," before the Military Research and Development Subcommittee.

November 29, 2001 "The Mission of Research Universities": Remarks at National Academy of Sciences' Regional Meeting

July 9, 2001 "University-Industry Partnerships": Remarks at National Science Foundation Workshop

April 5, 2001 "Supporting Innovation is Key to U.S. Prosperity": Opinion piece, *San Diego Union-Tribune*, co-signed by Dr. Irwin Jacobs of Qualcomm and Julie Meier Wright of the S.D. Regional Economic Development Corporation

Spring 2001 "Engaging Underrepresented Students in Research: The Role of Peer Influence": Guest editorial in *Camp Q Quarterly*.

### **Scientific Publications & Presentations – Partial List**

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| 1. C.K. Campbell, R.C. Dynes and D.G. Walmsley, Anisotropy of the energy gap in superconducting lead-dismuth alloys, <i>Can. J. of Physics</i> 44,2601-2604 (1966).                              | RESEARCH ARTICLE |
| 2. J.P. Carbotte and R.C. Dynes, Resistivity of solid aluminum, <i>Phys. Lett.</i> 25A,532-533 (1967).   | RESEARCH ARTICLE |
| 3. J.P. Carbotte and R.C. Dynes, Calculations of the superconducting transition temperature in aluminum, <i>Phys. Lett.</i> 25A,685-686 (1967).  | RESEARCH ARTICLE |
| 4. D.G. Walmsley, C.K. Campbell and R.C. Dynes, Superconductivity of very thin aluminum films, <i>Can. J. of Phys.</i> 46,1129-1132 (1968).  | RESEARCH ARTICLE |
| 5. R.C. Dynes, J.P. Carbotte and E.J. Woll, Jr., Origin of the discrepancy between tunneling and neutron-derived phonon densities of states in lead, <i>Sol. St. Commun.</i> 6,101-105 (1968).   | RESEARCH ARTICLE |
| 6. J.P. Carbotte and R.C. Dynes, Superconductivity in simple metals, <i>Phys. Rev.</i> 172, 476-484 (1968).  | RESEARCH ARTICLE |
| 7. P.N. Trofimenkoff, J.P. Carbotte and R.C. Dynes, Electron phonon mass renormalization, <i>Phys. Lett.</i> 27A, 394-395 (1968).  | RESEARCH ARTICLE |
| 8. R.C. Dynes and J.P. Carbotte, Phonon-limited resistivity of some simple metals, <i>Phys. Rev.</i> 175, 913-919 (1968).  | RESEARCH ARTICLE |
| 9. R.C. Dynes, J.P. Carbotte, D.W. Taylor and C.K. Campbell, Tunneling study of superconductivity in Tl-Pb-Bi alloys, <i>Phys. Rev.</i> 178, 713-724 (1969).                                     | RESEARCH ARTICLE |
| 10. R.C. Dynes and J.M. Rowell, Tunneling determination of phonon-energy uncertainties due to force-constant disorders in the alloy $Pb_{1-2x}Tl_xBi_x$ , <i>Phys. Rev.</i> 187, 821-827 (1969). | RESEARCH ARTICLE |
| 11. R.C. Dynes, Preferred direction tunneling into a superconductor, <i>Physica</i> 55, 462-470 (1971).  | RESEARCH ARTICLE |
| 12. R.C. Dynes, Influence of the phonon spectra of In-Tl alloys on the superconducting transition temperatures, <i>Phys. Rev. B</i> 2, 644-656 (1970).   | RESEARCH ARTICLE |
| 13. J.P. Carbotte, P.T. Truant and R.C. Dynes, Electronic specific heat of aluminum-based alloys, <i>Can. J. of Phys.</i> 48, 1504-1513 (1970).  | RESEARCH ARTICLE |
| 14. W.F. Brinkman, R.C. Dynes and J.M. Rowell, Tunneling conductance of asymmetrical barriers, <i>J. of Appl Phys.</i> 41, 1915-1921 (1970).   | RESEARCH ARTICLE |
| 15. T.A. Fulton and R.C. Dynes, Current-phase relations in superconducting bridges, <i>Phys. Rev. Lett.</i> 25, 794-797 (1970).  | RESEARCH ARTICLE |
| 16. R.C. Dynes, McMillan's equation and the $T_C$ of superconductors, <i>Sol. St. Comm.</i> 10, 615-618 (1972).  | RESEARCH ARTICLE |
| 17. R.C. Dynes and T.A. Fulton, Supercurrent density distribution in Josephson junctions, <i>Phys. Rev. B</i> 3, 3015-3023 (1971).   | RESEARCH ARTICLE |
| 18. R.C. Dynes, V. Narayanamurti and M. Chin, Monochromatic phonon propagation in Ge:Sb using superconducting tunnel junction, <i>Phys. Rev. Lett.</i> 26, 181-184 (1971).                       | RESEARCH ARTICLE |

19. T.A. Fulton and R.C. Dynes, Switching to zero voltage in Josephson tunnel junctions, *Sol. St. Comm.* 9, 1069-1073 (1971). RESEARCH ARTICLE
20. V. Narayanamurti and R.C. Dynes, Intense tunable phonon fluorescence in superconductors, *Phys. Rev. Lett.* 27, 410-413 (1971). RESEARCH ARTICLE
21. R.C. Dynes and V. Narayanamurti, Phonon fluorescence in superconductors and the propagation characteristics of high-frequency phonons in Ge:Sb and  $A\text{□}_2\text{O}_3:\text{V}^{3+}$ , *Phys. Rev. B* 6, 143-171 (1972). RESEARCH ARTICLE
22. V. Narayanamurti and R.C. Dynes, Observation of second sound in busmuth, *Phys. Rev. Lett.* 28, 1461-1465 (1972). RESEARCH ARTICLE
23. J.M. Rowell and R.C. Dynes, Comparison of phonon spectra determined from tunneling experiments, *Proc. International Conference on Photons*. CONFERENCE PROCEEDING
24. R.C. Dynes and V. Narayanamurti, High frequency monochromatic phonon spectroscopy in Ge, Sb, *Proc. of the International Conference on Phonon Scattering in Solids*. CONFERENCE PROCEEDING
25. V. Narayanamurti and R.C. Dynes, Phonon fluorescence in superconductors, *J. de Physique C4*, 11-14 (1972). RESEARCH ARTICLE
26. T.A. Fulton, L.N. Dunkleberger and R.C. Dynes, Quantum interference properties of double Josephson junctions, *Phys. Rev. B* 6, 855-875 (1972). RESEARCH ARTICLE
27. T.A. Fulton and R.C. Dynes, Single vortex propagation in Josephson tunnel junctions, *Sol. St. Comm.* 12, 57-61 (1973). RESEARCH ARTICLE
28. R.C. Dynes and V. Narayanamuri, Quasiparticle relaxation and phonon emission in superconducting tunnel junctions, *Sol. St. Comm.* 12, 341-344 (1973). RESEARCH ARTICLE
29. R.C. Dynes, V. Narayanamuri and K. Andres, Phonon and roton propagation in Hell under pressure, *Phys. Rev. Lett.* 3, 1129-1132 (1973). RESEARCH ARTICLE
30. K. Andres, R.C. Dynes and V. Narayanamuri, Velocity spectrum of atoms evaporating from a liquid He surface at low temperatures, *Phys. Rev.* A8, 2501-2506 (1973). RESEARCH ARTICLE
31. V. Narayanamurti, K. Andres and R.C. Dynes, Dispersion and attenuation of superthermal monochromatic phonons in Hell, *Phys. Rev. Lett.* 31, 687-690 (1973). RESEARCH ARTICLE
32. P. Hu, R.C. Dynes and V. Narayanamurti, Dynamics of quasiparticles in superconductors, *Phys. Rev.* 10, 2786-2788 (1974). RESEARCH ARTICLE
33. R.C. Dynes and V. Narayanamurti, Evidence for upward or "anamolous" dispersion in the excitation spectrum of Hell, *Phys. Rev. Lett.* 33, 1195-1197 (1974). RESEARCH ARTICLE
34. P.B. Allen and R.C. Dynes, Superconductivity at very strong coupling, *J. Phys. C:Solid State Phys.* 8, 158-163 (1975). RESEARCH ARTICLE
35. R.C. Dynes and V. Narayanamurti, Phonon propagation in liquid  $^4\text{He}$ , *Proc. of European Physical Society*, Haifa, 1-4 July 1974, 29-38. RESEARCH ARTICLE
36. V. Narayanamuri, R.C. Dynes and K. Andres, Propagation of sound and second sound using heat pulses, *Phys. Rev.* 11, 2500-2524 (1975). RESEARCH ARTICLE
37. T.A. Fulton, R.C. Dynes and .W. Anderson, The flux shuttle - a Josephson junction shift register employing single flux quanta, *Proc. of IEEE* 161, 28-35 (1973). CONFERENCE PROCEEDING
38. P.B. Allen and R.C. Dynes, Superconductivity and phonon softening: II. Lead Alloys, *Phys. Rev. B* 11, 1895-1905 (1975). RESEARCH ARTICLE
39. R.C. Dynes and J.M. Rowell, Influence of electrons-per-atom ratio and phonon frequencies on the superconducting transition temperature of lead alloys, *Phys. Rev. B* 11, 1884-1894 (1975). RESEARCH ARTICLE

40. R.C. Dynes, J.M. Poate, L.R. Testardi, A.R. Storm and R.H. Hammond, Superconductivity defects and stoichiometry in A15 materials, *IEEE Transactions on Magnetics* 1, 640-643 (1977). RESEARCH ARTICLE
41. P. Hu, V. Narayanamurti and R.C. Dynes, Observation and study of electromagnetic wave generation in metals using nanosecond pulses of laser light: case of alfvén waves in bismuth, *Phys. Rev. Lett.* 34, 1015-1018 (1975). RESEARCH ARTICLE
42. R.C. Dynes and V. Narayanamurti, Measurement of anomalous dispersion and the excitation spectrum of Hell, *Phys. Rev. B* 12, 1720-1730 (1975). RESEARCH ARTICLE
43. V. Narayanamurti and R.C. Dynes, Ballistic phonons and the transition to second sound in solid  $^3\text{He}$  and  $^4\text{He}$ , *Phys. Rev. B* 12, 1731-1738 (1975). RESEARCH ARTICLE
44. V. Narayanamurti and R.C. Dynes, Roton propagation and phonon-roton scattering in Hell, *Phys. Rev. B* 13, 2898-2909 (1976). RESEARCH ARTICLE
45. P.B. Allen and R.C. Dynes, Transition temperature of strong-coupled superconductors reanalyzed, *Phys. Rev. B* 12, 905-922 (1975). RESEARCH ARTICLE
46. R.C. Dynes and C.M. Varma, Superconductivity and electronic density of states, *J. Phys. F: Metal Phys.* 6, L1-5 (1976). RESEARCH ARTICLE
47. D.M. Ginsberg, R.E. Harris and R.C. Dynes, Strong-coupling correction to the low-frequency electrical conductivity of superconductors and Josephson junctions, *Phys. Rev. B* 14, 990-992 (1976). RESEARCH ARTICLE
48. R.E. Harris, R.C. Dynes and D.M. Ginsberg, Strong-coupling correction to the jump in the quasiparticle current of a superconducting tunnel junction, *Phys. Rev. B* 14, 993-995 (1976). RESEARCH ARTICLE
49. R.C. Dynes and P.B. Allen, Maximum  $T_C$  - Optimistic Evidence, *Superconductivity in d- and f-band Metals*, ed. D.H. Douglass, pp. 15-28 (1976). BOOK CHAPTER
50. J.M. Poate, R.C. Dynes, L.R. Testardi and R.J. Hammond, Defect production and stoichiometry in A-15 superconductors, *Superconductivity in d- and f-band Metals*, ed. D.H. Douglass, pp. 489-505 (1976). BOOK CHAPTER
51. J.M. Poate, R.C. Dynes and L.R. Testardi, Comments on defect production and stoichiometry in A-15 superconductors, *Phys. Rev. Lett.* 37, 1308-1311 (1976). RESEARCH ARTICLE
52. C.M. Varma and R.C. Dynes, Empirical relations in transition metal superconductivity, *Superconductivity in d- and f-band Metals*, ed. D.H. Douglass, pp. 507-533 (1976). BOOK CHAPTER
53. P. Hu, R.C. Dynes, V. Narayanamurti, H. Smith and W.F. Brinkman, Quasiparticle propagation and recombination in bulk, superconducting Pb, *Phys. Rev. Lett.* 38, 361-364 (1977). RESEARCH ARTICLE
54. R.B. Kummer, V. Narayanamurti and R.C. Dynes, Ballistic phonons and the transition to second sound in dilute mixtures of  $^3\text{He}$  in liquid  $^4\text{He}$ , *Phys. Rev. B* 16, 1046-1056 (1977). RESEARCH ARTICLE
55. R.B. Kummer, V. Narayanamurti and R.C. Dynes, Phonon-quasiparticle scattering in dilute  $^3\text{He}/^4\text{He}$  mixtures, *Proc. of Intl. Symposium on Quantum Fluids and Solids* (Sanibel Island, Florida). CONFERENCE PROCEEDING
56. R.C. Dynes, V. Narayanamurti and J.P. Garno, Observation of a new superconducting state at high quasiparticle injection, *Phys. Rev. Lett.* 39, 229-232 (1977). RESEARCH ARTICLE
57. L.Y.L. Shen, H.S. Chen, R.C. Dynes and J.P. Garno, The energy loss spectra and Auger spectra of palladium hydride and palladium glasses, *J. Phys. Chem. Solids* 39, 33-38 (1978). RESEARCH ARTICLE
58. R.C. Dynes, Transition metal superconductivity, *Inst. Phys. Conf. Ser.* 39, 635-638 (1978). RESEARCH ARTICLE

59. J.C. Hensel and R.C. Dynes, Interaction of electron-hole drops with ballistic phonons in heat pulses: The phonon wind, *Phys. Rev. Lett.* 39, 969-972 (1977). RESEARCH ARTICLE
60. D.B. McWhan, R.C. Dynes and S.M. Shapiro, Neutron scattering study at high pressure of the phonon softening in lead, *Proc. of Intl. Conf. on Lattice Dynamics, France, 9/5-10/77*. CONFERENCE PROCEEDING
61. W.A. Lanford, P.H. Schmidt, J.M. Rowell, J.M. Poate, R.C. Dynes and P.D. Dernier, Sensitivity of the  $T_C$  of  $Nb_3Ge$  to hydrogen content, *Appl. Phys. Lett.* 32, 339-341 (1978). RESEARCH ARTICLE
62. R.C. Dynes, J.P. Garno and J.M. Rowell, Two-dimensional electrical conductivity in quench-condensed metal films, *Phys. Rev. Lett.* 40, 479-482 (1978). RESEARCH ARTICLE
63. R.C. Dynes, Tunneling in physical systems, *Tunneling in Biological Systems*, Academic Press, pp. 17-29 (1979). BOOK CHAPTER
64. R.B. Kummer, R.C. Dynes and V. Narayanamurti, Fast-time heat capacity in amorphous  $SiO_2$  using heat-pulse propagation, *Phys. Rev. Lett.* 40, 1187-1190 (1978). RESEARCH ARTICLE
65. J.C. Hensel and R.C. Dynes, Interaction of electron-hole drops in Ge with nonequilibrium, ballistic phonons in a heat pulse: The phonon wind, *Inst. Phys. Conf. Ser.* 43, 371-374 (1979). RESEARCH ARTICLE
66. V. Narayanamurti, R.C. Dynes, P. Hu, H. Smith and W.F. Brinkman, Quasiparticle and phonon propagation in bulk, superconducting lead, *Phys. Rev. B* 18, 6041-6052 (1978). RESEARCH ARTICLE
67. J.M. Rowell, R.C. Dynes and P.H. Schmidt, The effect of damage on superconducting cluster compounds, *Sol. St. Comm.* 30, 191-194 (1979). RESEARCH ARTICLE
68. R.C. Dynes, V. Narayanamurti and J.P. Garno, Direct measurement of quasiparticle-lifetimebroadening in a strong-coupled superconductor, *Phys. Rev. Lett.* 41, 509-512 (1978). RESEARCH ARTICLE
69. C.R. Leavens, P.B. Allen and R.C. Dynes, The superconducting transition temperature for very large electron-phonon coupling, *Sol. St. Comm.* 30, 595-596 (1979). RESEARCH ARTICLE
70. R.D. Burbank, R.C. Dynes and J.M. Poate, X-ray study of atomic displacements in  $Nb_3Sn$  induced by radiation damage, *J. of Low Temp. Phys.* 36, 573-585 (1979). RESEARCH ARTICLE
71. J.M. Rowell, R.C. Dynes and P.H. Schmidt, Ion damage, critical current and tunneling studies of  $ErRh_4B_4$  films, *Superconductivity in d- and f-band Metals*, ed. D.H. Douglass, pp. 409-418 (1980). BOOK CHAPTER
72. J.C. Hensel and R.C. Dynes, Observation and singular behavior in the focusing of ballistic phonons in Ge, *Phys. Rev. Lett.* 43, 1033-1036 (1979). RESEARCH ARTICLE
73. J.C. Hensel and R.C. Dynes, Interaction of nonequilibrium, ballistic phonons in a heat pulse with the electron-hole liquid in Ge: The phonon wind, *Phonon Scattering in Condensed Matter*, ed. H.J. Maris, Plenum Publishing Corp., pp. 395-400 (1980). BOOK CHAPTER
74. D.J. Bishop, D.C. Tsui and R.C. Dynes, Nonmetallic conduction in electron inversion layers at low temperatures, *Phys. Rev. Lett.* 44, 1153-1156 (1980). RESEARCH ARTICLE
75. D.J. Bishop, D.C. Tsui and R.C. Dynes, Nonmetallic conduction in electron inversion layers at low temperatures, *Ordering in Two Dimensions*, Elsevier North Holland, Inc. ed. Sinha, pp. 487-490 (1980). BOOK CHAPTER
76. M.T. Loponen, R.C. Dynes, V. Narayanamurti and J.P. Garno, Observation of time dependent specific heat in amorphous  $SiO_2$ , *Phys. Rev. Lett.* 45, 457-460 (1980). RESEARCH ARTICLE
77. D.J. Bishop, D.C. Tsui and R.C. Dynes, Observation of a nonohmic Hall resistivity at low temperatures in a two-dimensional electron gas, *Phys. Rev. Lett.* 46, 360-363 (1981). RESEARCH ARTICLE

78. R.C. Dynes, J.M. Rowell and P.H. Schmidt, The effect of  $\alpha$ -particle damage on the superconducting and magnetic transition temperatures of ternary borides, *Ternary Superconductors*, North Holland Publishing Co., pp. 169-173 (1981). BOOK CHAPTER
79. B.W. Dodson, W.L. McMillan, J.M. Mochel and R.C. Dynes, The metal-insulator transition in disordered germanium-gold, *Phys. Rev. Lett.* 46, 46-49 (1981). RESEARCH ARTICLE
80. R.C. Dynes and J.P. Garno, The metal insulator transition in granular aluminum, *Phys. Rev. Lett.* 46, 136-140 (1981). RESEARCH ARTICLE
81. M.T. Loponen, R.C. Dynes, V. Narayanamurti and J.P. Garno, The time dependent specific heat of dielectric glasses, *Physica* 109-110B, 1873-1879 (1982). RESEARCH ARTICLE
82. M.T. Loponen, R.C. Dynes, V. Narayanamurti and J.P. Garno, Measurements on the time dependent specific heat of amorphous materials, *Phys. Rev. B* 25, 1161-1173 (1982). RESEARCH ARTICLE
83. R.C. Dynes, D.J. Bishop and D.C. Tsui, Electron localization and Coulomb interactions in two dimensions, Proc. 4th Intl. Conf. on Electronic Properties of 2-dimensional systems, *Surf. Sci.* 113, 510-517 (1982). CONFERENCE PROCEEDING
84. R.C. Dynes, Localization and correlation effects in metals and semiconductors - experiment, *Physica* 109-110B, 1857-1865 (1982) RESEARCH ARTICLE
85. J.C. Hensel, R.C. Dynes and D.C. Tsui, Absorption of ballistic phonons by the 2D electron gas in a Si MOSFET, Proc. 4th Intl. Conf. on Electronic Properties of 2-Dimensional Systems, *Surf. Sci.* 113, 249-255 (1982). CONFERENCE PROCEEDING
86. M.T. Loponen, R.C. Dynes, V. Narayanamurti and J.P. Garno, Thermal relaxation in a -  $AS_2S_3$  and a-As, *Phys. Rev. B* 25, 4310-4312 (1982). RESEARCH ARTICLE
87. J.C. Hensel, R.C. Dynes, F.C. Unterwald and A.L. Simons, Singular effects in phonon focusing; formation of phonon focusing caustics, *J. de Physique* C6, 212-213 (1981). RESEARCH ARTICLE
88. D.J. Bishop, R.C. Dynes and D.C. Tsui, Magnetoresistance in Si MOSFETs - Evidence of weak localization and correlation, *Phys. Rev. B* 26, 773-779 (1982). RESEARCH ARTICLE
89. P. Sulewski, D.J. Bishop and R.C. Dynes, A description of the BTL scanned acoustic microscope, *Bell system Technical Journal* 61, 2167-2183 (1982). RESEARCH ARTICLE
90. C.M. Varma, R.C. Dynes and J.R. Banavar, Thermally created tunneling states in glasses, *Sol. St. Phys.* 15, L1221-1225 (1982). RESEARCH ARTICLE
91. M. Marcus, R.C. Dynes, J.E. Griffiths and D.B. McWhan, Effect of ion-beam damage on X-ray diffraction and raman spectra of amorphous  $GeSe_2$ , *J. Appl. Phys.* 54, 1792-1794 (1983). RESEARCH ARTICLE
92. R.C. Dynes and P.A. Lee, Localization, interactions and the metal-insulator transition, *Science* 223, 355-360 (1984). RESEARCH ARTICLE
93. B. Batlogg, J.P. Remeika, R.C. Dynes, H. Barz, A.S. Cooper and J.P. Garno, Structural instabilities and superconductivity in single crystal  $Ba(Pb,BiO)_3$ , *Superconductivity in d- and f-band Metals*, pp.401-403 (1982). BOOK CHAPTER
94. R.C. Dynes, T.H. Geballe, G.W. Hull, Jr. and J.P. Garno, Magnetoresistive determination of localization effects in InSb, *Phys. Rev. B* 27, 5188-5191 (1983). RESEARCH ARTICLE
95. G. Hertel, D.J. Bishop, E.G. Spencer, J.M. Rowell and R.C. Dynes, Tunneling and transport measurements at the metal insulator transition of amorphous Nb:Si, *Phys. Rev. Lett.* 50, 743-746 (1983). RESEARCH ARTICLE
96. J.C. Hensel, R.C. Dynes and D.C. Tsui, Absorption of ballistic phonons by the (001) inversion layer of Si: Electron-phonon interaction in 2-dimensions, *Phys. Rev. B* 28, 1124-1126 (1983). RESEARCH ARTICLE

97. T. Venkatesan, R.C. Dynes, A.E. White, B.J. Wilkens, J.M. Gibson and R. Hamm, Hall measurements of metallic carrier densities in ion irradiated amorphous carbon films, *Proc. of Sixteenth American Biennial Conf. of Carbon*. CONFERENCE PROCEEDING
98. P.E. Sulewski, R.C. Dynes, S. Majahan and D.J. Bishop, A study of defects in optoelectronic materials using a scanning acoustic microscope, *J. Appl. Phys.* 54, 5711-5714 (1983). RESEARCH ARTICLE
99. T. Venkatesan, R.C. Dynes, B. Wilkens, A.E. White, J.M. Gibson and R. Hamm, Comparison of conductivity produced in polymers and carbon films by pyrolysis and high energy ion irradiation, *Proc. Conf. on Radiation Effects on Insulators*. CONFERENCE PROCEEDING
100. J.E. Rutledge, R.C. Dynes and V. Narayanamurti, Superconducting tunneling in a pair-breaking microwave field, *J. Low Temp. Phys.* 54, Nos. 5/6 (1984). RESEARCH ARTICLE
101. A.E. White, R.C. Dynes and J.P. Garno, Low temperature magnetoresistance in 2D magnesium films, *Phys. Rev. Lett.* 29, 3694-3696 (1984). RESEARCH ARTICLE
102. D.J. Bishop, R.C. Dynes, B.J. Lin and D.C. Tsui, Anisotropy in weakly localized electronic transport: A parameter-free test of the scaling theory of localization, *Phys. Rev. B* 30, 3539-3541 (1984). RESEARCH ARTICLE
103. J.C. Hensel, R.C. Dynes, B.I. Halperin and D.C. Tsui, *Proc. Fifth Intl. Conf. on Electronic Properties of Two-Dimensional Systems*, and *Proc. Fourth Intl. Conf. on Phonon Scattering in Condensed Matter*. CONFERENCE PROCEEDING
104. J.C. Hensel, B.I. Halperin and R.C. Dynes, A dynamical model for the absorption and scattering of ballistic phonons by the electron inversion layer in silicon, *Phys. Rev. Lett.* 51, 2302-2305 (1983). RESEARCH ARTICLE
105. Book Review - Superconductivity of Transition Metals: Their Alloys and Compounds, by S.F. Vonsovsky *et al.*, *Ferroelectrics* 47, 255-257 (1983). REVIEW ARTICLE
106. A.E. White, R.C. Dynes and J.P. Garno, Correction to the 2D density of states, *Phys. Rev. B* 31, 1174-1176 (1985). RESEARCH ARTICLE
107. D.J. Bishop, E.G. Spencer and R.C. Dynes, The metal-insulator transition in amorphous Nb:Si, *Solid State Electronics* 28, 73-79 (1985). RESEARCH ARTICLE
108. D.J. Bishop, D.C. Tsui and R.C. Dynes, Weak localization in silicon MOSFETs: Isotropic and anisotropic two-dimensional electron gases, *Proc. of Intl. Conf. on Weak Loc. and Int. Effect*. CONFERENCE PROCEEDING
109. R.C. Dynes, J.P. Garno, G.B. Hertel and T.P. Orlando, Tunneling study of superconductivity near the metal-insulator transition, *Phys. Rev. Lett.* 53, 2437-2440 (1984). RESEARCH ARTICLE
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