

Publications of H. Tracy Hall:

1. Graham W. Marks and H. Tracy Hall, *A Method for the Spectrochemical Determination of Germanium, Tin and Lead in Ore Samples*, U. S. Bureau of Mines Report of Investigations No. 3965, Nov. 1946, 38 pp.
2. H. Tracy Hall and Henry Eyring, *The Constitution of Chromic Salts in Aqueous Solution*, J. Am. Chem. Soc., 72, 782-790 (1950).
3. Graham W. Marks and H. Tracy Hall, *Transmission Characteristics in the Visible Spectral Region of the Quinalizarin and Beryllium-Quinalizarin Complex in N/4 Sodium Hydroxide Solution*, U. S. Bureau of Mines Report of Investigations No. 4741, Oct. 1950, 5 pp.
4. H. Tracy Hall and Raymond M. Fuoss, *Empirical Analysis of Viscosity Data*, J. Am. Chem. Soc., 73, 265-269 (1951).
5. H. Tracy Hall, *Molecular Weight of Polytrifluorochloroethylene by Light Scattering*, J. Polymer. Sci., 7, 443-447 (1951).
6. H. Tracy Hall, Edward L. Brady and Paul D. Zemaný, *Viscosity of Polytrifluorochloroethylene in o-Chlorobenzotrifluoride*, J. Am. Chem. Soc., 73, 5460 (1951).
7. H. Tracy Hall, *The Solubility of Polytrifluorochloroethylene*, J. Am. Chem. Soc., 74, 68-71 (1952). NOTE: Tracy Hall received a very complimentary [letter](#) in response to this article from the award-winning J. H. Hildebrand, Dean of the College of Chemistry at the University of California.
8. H. Tracy Hall, *Stress-strain properties of polytrifluorochloroethylene as a function of temperature*, G.E. Report No. RL-686 (Class 1) (May 1952).
9. H. Tracy Hall, A. M. Bueche, "[Insulation Cut-Through on Wires](#)," G.E. Report No. RL-779 (Class 2) (Dec 1952).
10. H. Tracy Hall, "[A New Method of Making Diamond Tools](#)," Internal GE Report (1954).
11. H. Tracy Hall, "[Pressures Generated by Heating Liquids at Constant Volumes](#)," GE Memo Report C-54-29 (Feb 1954).
12. H. Tracy Hall, "[The "Belt": Ultra-High-Pressure, High-Temperature Apparatus](#)," G.E. Report No. RL-1064 (Rigidly Limited) (Mar 1954).
13. H. Tracy Hall, "[Report of the Paper "High Pressure Minerals" by Loring Coes, Jr., Norton Co. given at the American Ceramic Society Meeting April 21, 1954](#)," GE Memo Report C-54-96 (Apr 1954).
14. H. Tracy Hall, "[80,000 Atmospheres in the "Belt"](#)," GE Memo Report C-54-99 (May 1954).
15. H. Tracy Hall, "[Seventh Symposium on Crystal Chemistry as Applied to Ceramics' Rutgers University, New Brunswick, N.J., June 4, 1954—A Report on Papers Presented](#)" GE Memo Report C-54-137 (Jun 1954).
16. H. Tracy Hall, "[High-Pressure, High-Temperature Apparatus: The 15° "Belt"](#)," GE Memo Report C-54-161 (Jul 1954).
17. H. Tracy Hall, "[The Formation Pressure of Coesite: A New High-Pressure, High-Temperature Crystalline Silica](#)," G.E. Report No. RL-1156 (Rigidly Limited) (Aug 1954).

18. H. Tracy Hall, "[Summary of Super Pressure Report](#)," Internal GE Report (Nov 1954).
19. H. Tracy Hall, "[A New Method of Mounting Diamonds](#)," *Rev. Sci. Instrum.*, 25, 1035-1036 (1954).
20. H. Tracy Hall, "[The Melting Point of Germanium as a Function of Pressure to 100,000 Atmospheres](#)," G.E. Report No. 55-RL-1273 (Mar 1955).
21. H. Tracy Hall, "[A Successful Diamond Synthesis](#)," Memo Report C-55-3 (Jan 1955).
22. F. P. Bundy, H. T. Hall, H. M. Strong and R. H. Wentorf, "[Man-Made Diamonds](#)," *Nature*, 176, 51-54 (1955).
23. H.P. Bovenkerk, F.P. Bundy, R.M. Chrenko, P.J. Codella, H.M. Strong, R.H. Wentorf Jr, "[Errors in Diamond Synthesis](#)," *Nature*, 365, 19 (1993).
24. H. Tracy Hall, "[The Melting Point of Germanium as a Function of Pressure to 180,000 Atmospheres](#)," *J. Phys. Chem.*, 59, 1144-1146 (1955).
25. H. Tracy Hall, "[Chemistry at High Temperature and High Pressure](#)," *Research and Engineering*, 11, 27-28 (1956).
26. H. Tracy Hall, "[Chemistry at High Temperature and High Pressure](#)," High Temperature--A Tool for the Future, Stanford Research Institute, Menlo Park, California, 161-166 (1956).
27. H. Tracy Hall, "[What the Sunday School has Done for Me](#)," *The Instructor*, 91, 341 (1956).
28. H. Tracy Hall, "[Chemistry at High Pressures and High Temperatures](#)," *J. Wash. Acad. Sci.*, 47, 300-304 (1957).
29. H. Tracy Hall, "Diamonds," *Proceedings of the Third Conference on Carbon* (held at University of Buffalo, Buffalo, N. Y., June 1957), Pergamon Press, London, pp. 75-84.
30. H. Tracy Hall, "[Chemistry at High Temperatures and Pressures](#)" (Dinner Speaker at Fourth Sagamore Ordnance Materials Research Conference, Held at Racquette Lake, New York August 21-23, 1957.)
31. H. Tracy Hall, Billings Brown, Bruce Nelson and Lane A. Compton, "[I. An Apparatus for Use with Condensed Phases at 10,000° II. Some Thermodynamic Considerations at Very High Temperatures](#)," *J. Phys. Chem.*, 62, 346-351 (1958).
32. H. Tracy Hall, "[Some High Pressure, High Temperature Apparatus Design Considerations: Equipment for Use at 100,000 Atmospheres and 3000° C](#)," *Rev. Sci. Instrum.*, 29, 267-275 (1958). NOTE: A reprint of this article is available in Series of Selected Papers in Physics, Solid State Physics in High Pressure, The Physical Society of Japan, Dept. of Physics, University of Tokyo, Japan (1960), pp. 6-14.
33. H. Tracy Hall, "[Ultrahigh Pressure Research](#)," *Science*, 128, 445-449 (1958).
34. H. Tracy Hall and S. S. Kistler, "[High Pressure Developments](#)," *Annual Review of Physical Chemistry*, Annual Reviews, Inc., Palo Alto, California, 395-416 (1958).
35. H. Tracy Hall, "[Ultrahigh Pressures](#)," *Sci. American*, 201, 61-67 (1959).
36. H. P. Bovenkerk, F. P. Bundy, H. T. Hall, H. M. Strong, and R. H. Wentorf, Jr., "[The Preparation of Diamond](#)," *Nature*, 184, 1094-1098 (1959).

37. H. Tracy Hall, "[High Pressure Methods](#)," Proceedings of an International Symposium on High Temperature Technology, Asilomar Conference Grounds, California, Oct. 6-9, 1959; Arranged by Stanford Research Institute, Menlo Park, California, McGraw-Hill, New York, pp. 145-156 and 355-336 (1960).
38. H. Tracy Hall, "[High Temperature Studies](#)," U.S. Army Ordnance Contract No. DA-04-495-ORD-792, 19 Jun 1956-31 Mar 1960.
39. H. Tracy Hall, "[Ultrahigh Pressure, High Temperature Apparatus: The Belt](#)," Rev. Sci. Instrum., 31, 125-131 (1960).
40. J. Duane Dudley and H. Tracy Hall, "[Experimental Fusion Curves of Indium and Tin to 105,000 Atmospheres](#)," Phys. Rev., 118, 1211-1216 (1960).
41. H. Tracy Hall, "[High Pressure Apparatus](#)," Progress in Very High Pressure Research, Proceedings of an International Conference Held at Bolton Landing, New York, June 13-14, 1960, edited by Bundy, Hibbard, and Strong (John Wiley and Sons, Inc., Publishers), pp. 1-9 (1961). NOTE: This article is available in Russian in The Physics of High Pressures, edited by K. Swenson, (in Russian) published in Moscow (1963).
42. H. Tracy Hall, "[Possible Future Roles of the Utah Academy](#)," Presidential Address, Proceedings, Utah Academy of Sciences, Arts and Letters, 38, 8-10 (1961).
43. H. Tracy Hall, "[The Synthesis of Diamond](#)," J. Chem. Educ., 38, 484-489 (1961).
44. H. Tracy Hall, "[Anvil Guide Device for Multiple-Anvil High Pressure Apparatus](#)," Rev. Sci. Instrum., 33, 1278-1280 (1962).
45. H. Tracy Hall, "[Ultrahigh Pressure, High Temperature X-ray Diffraction Apparatus](#)," U.S. Army Ordnance Contract No. DA-ORD-42, 1 Jun 1960--30 Mar 1962 (OOR Project No. 2723-C).
46. H. Tracy Hall, J. Dean Barnett and Leo Merrill, "[Ytterbium: Transition at High Pressure from Face-Centered Cubic to Body-Centered Cubic Structure](#)," Science, 139, 111-112 (1963).
47. H. Tracy Hall and Leo Merrill, "[Some High Pressure Studies on Ytterbium](#)," Inorg. Chem., 2, 618-624 (1963).
48. H. Tracy Hall, "[High Pressure, High Temperature](#)," Perspectives in Materials Research, edited by L. Hinnel, J. J. Harwood, and W. J. Harris, Jr., Office of Naval Research, Dept. of the Navy, Washington, D. C., Surveys of Naval Science, No. 10, February 1963, pp. 730-738. (Note: This material was written four years before the book was published).
49. J. Dean Barnett, Roy B. Bennion, H. Tracy Hall, "[High Pressure X-ray Diffraction Studies on Barium](#)," Science, 141, 534-535 (1963).
50. J. Dean Barnett, Roy B. Bennion, H. Tracy Hall, "[X-ray Diffraction Studies on Tin at High Pressure and High Temperature](#)," Science, 141, 1041-2 (1963).
51. H. Tracy Hall, "[High Pressure/Temperature Apparatus](#)," chapter 4 (pp. 133-179), Metallurgy at High Pressures and High Temperatures, edited by K. A. Gschneidner, Jr., M. T. Hepworth, and N. A. D. Parlee; Gordon and Breach Science Publishers, New York, 1964.
52. J. Dean Barnett and H. Tracy Hall, "[High Pressure-High Temperature X-ray Diffraction Apparatus](#)," Rev. Sci. Instrum., 35, 175-182 (1964).

53. H. T. Hall, "[Polymorphism and High Pressure](#)," B. Y. U. Studies, 5, 139-153 (1964).
54. H. T. Hall, Guest Editorial, "[High Pressure](#)," Experimental Mechanics, 4, 3-A (1964).
55. H. T. Hall, L. Merrill and J. D. Barnett, "[High Pressure Polymorphism in Cesium](#)," Science, 146, 1297-1299 (1964).
56. H. T. Hall, "[Periodic Compounds: Syntheses at High Pressures and Temperatures](#)," Science, 148, 1331- 1333 (1965).
57. H. T. Hall and L. A. Compton, "[Group IV Analogs and High Pressure, Temperature Synthesis of B₂O](#)," Inorg. Chem., 4, 1213-1216 (1965).
58. W. E. Evenson and H. T. Hall, "[Volume Measurements on Chromium to 30 kilobars](#)," Science, 150, 1164- 1165 (1965).
59. H. T. Hall, "[A Tetrahedron Problem](#)," Math. Mag., 38, 241 (1965). prob. No. 598.
60. R. B. Bennion, H. G. Miller, W. R. Myers, H. T. Hall, "[100 Kbar Press for Time-of-Flight Neutron Diffraction](#)," Acta Cryst., 25A, S71 (1965).
61. H. T. Hall, "[High Pressure Inorganic Chemistry](#)," in Progress in Inorganic Chemistry Vol. 7, edited by F. A. Cotton, Interscience Publishers, pp. 1-38 (1966).
62. J. D. Barnett, V. E. Bean, and H. T. Halt, "[X-ray Diffraction Studies on Tin to 100 Kilobars](#)," Journal of Applied Physics, 37, 875-877 (1966).
63. R. N. Jeffery, J. D. Barnett, H. Vanfleet, H. T. Hall, "[A Pressure Scale to 100 Kilobar Based on Compression of NaCl](#)," J. Appl. Phys., 37, 3172-3180 (1966).
64. H. T. Hall, "[Hydraulic Ram Design for Modern High Pressure Devices](#)," Rev. Sci. Instrum., 37, 568-571 (1966).
65. H. T. Hall, "[A Scientist Looks at the Miracles of Jesus](#)," The Instructor, 101, 86-87 (1966).
66. H. T. Hall, "[Transformations in Solids at High Pressure](#)," Proceedings of Fourth Meeting, Cape Kennedy, Florida, March 16-18, 1966, Thermochemistry Working Group, Interagency Chemical Rocket Propulsion Group, Chemical Propulsion Information Agency, Publication No. 108, June 1966, Volume 1, pp. 67-74.
67. H. T. Hall, "[High Temperatures, High Pressures, and Periodic Compounds](#)," High-Temperature Chemistry, National Academy of Sciences, National Research Council Publication 1470, Washington, D. C. , 1967, pp. 65-66.
68. H. T. Hall (Book), "High Pressures (to 100,000 Atmospheres at 1500° C)," American Institute of Chemical Engineers, Today Series, 345 West 47th St. New York, N. Y. 10017, (1967), 179 pp.
69. H. T. Hall, "[High Pressure Apparatus: Ram-In-Tie-Bar Multianvil Presses](#)," Rev. Phys. Chem. Japan, 37, 63-71 (1967).
70. H. Tracy Hall, "[High Pressure Scale by X-ray Diffraction Techniques up to Approximately 100 kbar](#)," in Accurate Characterization of the High-Pressure Environment, ed. E. C. Lloyd, U. S. Dept. of Commerce, National Bureau of Standards Special Publication 326 issued March 1971, pp. 303-306. Paper presented at the National Bureau of Standards Symposium, Gaithersburg, Md. , October 14-18, 1968. Available from the U. S. Government Printing Office, Washington, D. C. 20402 (Order by Catalog No. C 13. 10:326)

71. N. L. Eatough and H. T. Hall, "[High Pressure Synthesis of Rare Earth Diantimonides](#)," *Inorg. Chem.*, 8, 1439 (1969).
72. N. L. Eatough, Alan W. Webb, and H. T. Hall, "[High Pressure Th₃P₄-Type Polymorphs of Rare Earth Sesquichalcogenides](#)," *Inorg. Chem.*, 8, 2069-2071 (1969).
73. J. D. Barnett, J. Pack, and H. T. Hall, "[Structure Determination of a Ferroelectric Phase of Sodium Nitrate Above 45 Kilobar](#)," *Proceedings of the Symposium on Crystal Structure at High Pressure at Pacific Science Center, Seattle, Washington, March 24, 1969*, Transactions of the American Crystallographic Association, 5, 113-131 (1969), Available from Polycrystal Book Service, P. O. Box 11567, Pittsburgh, Pennsylvania 15238.
74. H. T. Hall, "[High Pressure Synthesis Involving Rare Earths](#)," *Rev. Phys. Chem. Japan*, 39, 110-116 (1969).
75. N. L. Eatough and H. T. Hall, "[High Pressure Synthesis of Lutetium Diantimonide](#)," *Inorg. Chem.*, 9, 416-417 (1970).
76. N. L. Eatough and H. T. Hall, "[High Pressure Th₃P₄-Type Polymorphs of Rare Earth Sesquiselenides](#)," *Inorg. Chem.*, 9, 417-418 (1970).
77. A. W. Webb and H. T. Hall, "[High Pressure Synthesis of Rare Earth Polyselenides](#)," *Inorg. Chem.*, 9, 843-847 (1970).
78. A. W. Webb and H. T. Hall, "[High Pressure Synthesis of Rare Earth Polysulfides](#)," *Inorg. Chem.*, 9, 1084 (1970).
79. J. F. Cannon and H. T. Hall, "[High Pressure Synthesis of Selected Lanthanide-Tellurium Compounds](#)," *Inorg. Chem.*, 9, 1639-1643 (1970).
80. H. T. Hall, "[Personal Experiences in High Pressure](#)," *The Chemist*, 47, 276-279 (1970), (Chemical Pioneer Address, American Institute of Chemists, Pittsburgh, Pennsylvania, May 19, 1970).
81. H. T. Hall, "[Sintered Diamond: A Synthetic Carbonado](#)," *Science*, 169, 868-869 (1970). NOTE: This article was reprinted as "Sintered Diamond," in *Brigham Young University Studies*, 1-6, 43-47 (1975) [Special Centennial issue].
82. F. William Linsley, Jr., Jerald S. Bradshaw and H. Tracy Hall, "[High Pressure Affects on Conjugated Aromatic Compounds](#)," *Rev. Phys. Chem. Japan*, 40, 69-72 (1970).
83. H. T. Hall, "The Synthesis of Diamond" in *Advances in Chemical Physics*, Vol. XXI, entitled, "Chemical Dynamics," (papers in honor of Henry Eyring), Eds. Hirschfelder & Henderson, John Wiley, New York (1971), pp. 721-735.
84. H. Tracy Hall, "[Fixed Points Near Room Temperature](#)," in *Accurate Characterization of the High-Pressure Environment*, ed. E. C. Lloyd, U. S. Dept. of Commerce, National Bureau of Standards Special Publication 326 issued March 1971, pp. 313-314. From National Bureau of Standards Symposium, Gaithersburg, Md., October 14-18, 1968. Available from the U. S. Govt. Printing Office, Washington, D. C. 20402 (Order by Catalog No. C 13. 10:326).
85. D. L. Decker, W. A. Bassett, L. Merrill, H. T. Hall and J. D. Barnett, "[High Pressure Calibration: A Critical Review](#)," *J. Phys. Chem. Ref. Data*, 1, 773-836 (1972).
86. Karl A. Miller and H. Tracy Hall, "[High Temperature Synthesis of Rare Earth Tri-Tin Compounds](#)," *Inorg. Chem.*, 11, 1188-1191 (1972).

87. J. F. Cannon, D. L. Robertson and H. T. Hall, "[Synthesis of Lanthanide-Iron Laves Phases at High Pressures and Temperatures](#)," *Mater. Res. Bull.*, 7, 5-12 (1972).
88. N. L. Eatough, H. T. Hall, "[High Pressure Synthesis of REMn₂ Compounds with the MgZn₂ \(Laves\) Structure](#)," *Inorg. Chem.*, 11, 2608-2609 (1972).
89. J. F. Cannon, D. L. Robertson, H. T. Hall, "[The Effect of High Pressure on the Formation of LRu₂ and LOs₂ \(L=Lanthanide\) Compounds](#)," *J. Less-Common Metals*, 29, 141-146 (1972).
90. D. L. Robertson, J. F. Cannon and H. T. Hall, "[High Pressure and High Temperature Synthesis of LaCo₂](#)," *Mat. Res. Bull.*, 7, 977- (1972).
91. J.M. Leger and H. Tracy Hall, "[Pressure and Temperature Formation of A₃B Compounds. I. Nb₃Si and V₃Al](#)," *J. Less-Common Metals*, 32, 181-187 (1973).
92. Karl A. Miller and H. Tracy Hall, "[High Pressure Synthesis of Lutetium Trilead](#)," *J. Less-Common Metals*, 32, 275-78 (1973).
93. J. F. Cannon, D. L. Robertson, H. T. Hall and A. C. Lawson, "[The Effect of High Pressure on the Crystal Structure of LaOs₂ and CeOs₂](#)," *J. Less-Common Metals*, 31, 174 (1973).
94. A. C. Lawson, J. F. Cannon, D. L. Robertson and H. T. Hall, "[Superconductivity of LaOs₂](#)," *J. Less-Common Metals*, 32, 173-74 (1973).
95. J.M. Leger & H. Tracy Hall, "[Pressure & Temperature Formation of A₃B Compounds. II. Nb₃Ge, Nb₃Sn, Nb₃Pb, V-In and V-Pb](#)," *J. Less-Common Metals*, 34, 17-24 (1974).
96. F. Cannon, D. L. Robertson, H. T. Hall and A. C. Lawson, "[High Pressure Synthesis of Beta-W-Type Nb₃Te](#)," *J. Phys. Chem. Solids*, 35, 1181-82 (1974).
97. M. D. Horton, B. J. Pope and H. T. Hall, "[Sintered Diamond](#)," International Industrial Diamond Association Symposium, Washington, D. C. (1974).
98. B. J. Pope, M. D. Horton, H. T. Hall, L. S. Bowman and H. Adaniya, "[Sintered Diamond: Its Possible Use as a High Thermal Conductivity Semiconduction Device Substrate](#)," Proc. 4th International Conference on High Pressure (AIRAPT), Kyoto, Japan (1974).
99. B. J. Pope, M. D. Horton, H. T. Hall and S. DiVita, "Selection and Treatment of Diamond Particulates in Preparation for High Thermal Conductivity Ceramics by Sintering at High Temperature and Ultra-high Pressure," Proc. Ninth Annual University Conference on Ceramic Science of the American Ceramic Society, Orlando, Florida (1975).
100. J. F. Cannon and H. T. Hall, "[Effect of High Pressure on the Crystal Structures of Lanthanide Trialuminidies](#)," *J. Less-Common Metals*, 40, 313-28 (1975).
101. H. Tracy Hall, "[Retraction System for Multi-anvil Presses](#)," *Rev. Sci. Instrum.*, 46, 436-38 (1975).
102. J. F. Cannon, D. M. Cannon, and H. T. Hall, "[High Pressure Synthesis of SmB₂ and GdB₁₂](#)," *J. Less-Common Metals* 56, 83-90, (1977).
103. J. F. Cannon, H. T. Hall, "[High Pressure Synthesis of Lanthanide/Boron and Actinide/Boron Compounds](#)," in *Rare Earths in Modern Science and Technology*, edited by G. J. McCarthy and J. J. Rhyne, Plenum Press, New York & London (1978) pp. 219-224.

104. Chapter I, "[Introduction](#)" to Chemical Experimentation Under Extreme Conditions, *Techniques of Chemistry*, Vol. IX, Eds. A. Weissberger and B. Rossiter, John Wiley & Sons (1980) pp. 1-8.
105. Chapter II, "[High Pressure Techniques](#)", *Ibid.* pp. 9-72.
106. H.T. Hall, "This Week's Citation Classic, Ultra-high pressure, High-temperature Apparatus: The "Belt," *Current Contents*, ISI Press, 41, 14 (1980).
107. H. T. Hall, "[Synthetic Diamonds](#)," *Encyclopedia of Chemical Processing and Design*, John J. McKetta and William A. Cunningham, eds., Volume 15, "Design of Experiments to Diffusion, Molecular," Marcel Dekker, Inc., New York and Basel, pp. 410-435 (1982).

H. T. Hall, "[Milestones in Crystal Growth: The Transformation of Graphite into Diamond](#)," *American Association for Crystal Growth*, March 1986, Vol. 16, No. 1, pp. 2-4.