

Richard A. Bernhard

List of Publications

1. Noller, C.R., C.A. Luchetti, E.M. Acton and R.A. Bernhard. Aug. 1953. The reaction of methanesulfonyl chloride with alcohols in the presence of pyridine. *Journal of the American Chemical Society* 75(15):3851-3852.
2. Bernhard, Richard A., and Carl Niemann. Jan. 1955. Absence of wall effects in a typical α -chymotrypsin catalyzed hydrolysis. *Journal of the American Chemical Society* 77(2):480-481.
3. Bernhard, Richard A., and Carl Niemann. Aug. 1957. Further studies on the kinetics of the α -chymotrypsin catalyzed hydrolysis of acetyl-*L*-tyrosinamide and of acetyl-*L*-tryptophanamide in aqueous solutions at 25° and pH 7.9 \pm 0.1. *Journal of the American Chemical Society* 79(15):4085-4091.
4. Bernhard, Richard A., and Carl Niemann. Aug. 1957. The dependence of the enzyme-inhibitor dissociation constants of several bifunctional anionic competitive inhibitors of α -chymotrypsin upon added potassium phosphate. *Journal of the American Chemical Society* 79(15):4091-4096.
5. Bernhard, Richard A. Aug. 1957. Separation and identification of some terpenes by gas partition chromatographic analysis. *Journal of the Association of Official Agricultural Chemists* 40(3):915-921.
6. Bernhard, Richard A. April 1958. Examination of lemon oil by gas-partition chromatography. *Food Research* 23(2):213-216.
7. Bernhard, Richard A. Oct. 1958. Occurrence of coumarin analogues in lemon juice. *Nature* 182(4643):1171.
8. Bernhard, Richard A., and Marion J. Simone. Feb. 1959. The locus of aroma in the mushroom (*Agaricus campestris* L.). *Food Research* 24(1):165-166.
9. Bernhard, Richard A. Sept. 1959. Some studies of coumarin and coumarin analogues as germination inhibitors of radish seeds. *The Botanical Gazette* 121(1):17-21.
10. Bernhard, Richard A. 1960. Analysis and composition of oil of lemon by gas-liquid chromatography. *Journal of Chromatography* 3:471-476.
11. Bernhard, Richard A. Jan. 1960. Effect of flow-rate and sample-size on column efficiency in gas-liquid chromatography. *Nature* 185(4709):311-312.
12. Clark, Joan R., and Richard A. Bernhard. June 1960. Examination of lemon oil by gas-liquid chromatography. II. The hydrocarbon fraction. *Food Research* 25(3):389-394.
13. Bernhard, Richard A. Aug. 1960. Stationary liquid phases for use in gas-liquid chromatography suitable for the separation of the components of essential oils. *Food Research* 25(4):531-537.

14. Bernhard, Richard A., and Allen G. Marr. Aug. 1960. The oxidation of terpenes. I. Mechanism and reaction products of D-limonene autoxidation. *Food Research* 25(4):517-529.
15. Clark, Joan R., and Richard A. Bernhard. Dec. 1960. Examination of lemon oil by gas-liquid chromatography. III. The oxygenated fraction. *Food Research* 25(6):731-738.
16. Bernhard, Richard A., and Byron Scrubis. 1961. The isolation and examination of the essential oil of the kumquat (*F. margarita* (Lour.) Swingle). *Journal of Chromatography* 5:137-146.
17. Bernhard, Richard A. Aug. 1961. Citrus flavor. Volatile constituents of the essential oil of the orange (*Citrus sinensis*). *Journal of Food Science* 26(4):401-411.
18. Bernhard, Richard A. Nov. 1962. Separation of terpene hydrocarbons by gas liquid chromatography utilizing capillary columns and flame ionization detection. *Analytical Chemistry* 34(12):1576-1579.
19. Bernhard, Richard A., and Ronald Wrolstad. Feb. 1963. The essential oil of *Schinus molle*: the terpene hydrocarbon fraction. *Journal of Food Science* 28(1):59-63.
20. Cabello, Jorge Kuon, and Richard A. Bernhard. March 1963. Un acceso químico a la taxonomía: Examen de los aminoácidos libres de la cebolla común (*Allium cepa* L.). *Boletín de la Sociedad Química de Perú* 29(1):29-43.
21. Kuon, Jorge, and Richard A. Bernhard. June 1963. An examination of the free amino acids of the common onion (*Allium cepa*). *Journal of Food Science* 28(3):298-304.
22. Jacobsen, John V., Richard A. Bernhard, Louis K. Mann and A.R. Saghir. March 1964. Infrared spectra of some asymmetric disulfides produced by *Allium*. *Archives of Biochemistry and Biophysics* 104(3):473-477.
23. Brennan, Michael J., and Richard A. Bernhard. May 1964. Headspace constituents of canned beef. *Food Technology* 18(5):149-152.
24. Bernhard, Richard A. May 1964. Are you getting the most out of your gas chromatograph? *Food Technology* 18(5):699.
25. Saghir, A.R., Louis K. Mann, Richard A. Bernhard and John V. Jacobsen. June 1964. Determination of aliphatic mono- and disulfides in *Allium* by gas chromatography and their distribution in the common food species. *Proceedings of the American Society for Horticultural Science* 84:386-398.
26. Bernhard, Richard A. June 1964. They went thattaway. *Food Technology* 18(6):875.
27. Bernhard, Richard A., A.R. Saghir, John V. Jacobsen and Louis K. Mann. July 1964. Isolation and identification of allyl monosulfide and allyl alcohol from *Allium*. *Archives of Biochemistry and Biophysics* 107(1):137-140.

28. Bernhard, Richard A. July 1964. Sweet smell of success. *Food Technology* 18(7):999.
29. Bernhard, Richard A. Aug. 1964. A change of pace. *Food Technology* 18(8):1175.
30. Bernhard, Richard A. Sept. 1964. It's done with mirrors. Is the backyard barbeque on the way out? *Food Technology* 18(9):1440.
31. Bernhard, Richard A. Oct. 1964. Some palladian observations. *Food Technology* 18(10):1573-1574.
32. Bernhard, Richard A. Nov. 1964. Behind the paper curtain. *Food Technology* 18(11):1738-1740.
33. Bernhard, Richard A. Dec. 1964. The hole truth. *Food Technology* 18(12):1909-1910.
34. Bernhard, Richard A. Jan. 1965. Of duplexity, VORP, and asafoetida. *Food Technology* 19(1):31-32.
35. Bernhard, Richard A. Feb. 1965. A trial balloon. *Food Technology* 19(2):147.
36. Bernhard, Richard A. March 1965. A sleeping giant. *Food Technology* 19(3):330, 334, 336.
37. Bernhard, Richard A., and Carl Niemann. April 1965. A dilatometric investigation of the α -chymotrypsin-catalyzed hydrolysis of nicotinyln-tryptophanamide. *Archives of Biochemistry and Biophysics* 110(1):195-199.
38. Bernhard, Richard A. April 1965. Two birds with one stone. *Food Technology* 19(4):460, 462, 464.
39. Bernhard, R.A. May 1965. More about the giant. *Food Technology* 19(5):709-710, 712.
40. Bernhard, Richard A. June 1965. The transparent pill. *Food Technology* 19(6):916-917.
41. Bernhard, Richard A. July 1965. Patterns on a plate. *Food Technology* 19(7):1042-1043, 1046.
42. Bernhard, Richard A. Aug. 1965. The alphabet game. *Food Technology* 19(8):1198, 1200, 1202.
43. Bernhard, Richard A. Sept. 1965. Fiat lux. *Food Technology* 19(9):1328-1329.
44. Bernhard, Richard A. Oct. 1965. Throwing your weight around. *Food Technology* 19(10):1484, 1488, 1492.
45. Bernhard, Richard A. Nov. 1965. Solid work. *Food Technology* 19(11):1633.
46. Bernhard, Richard A. Dec. 1965. Tears without sadness. *Food Technology* 19(12):1756-1757, 1762.

47. Bernhard, Richard A. 1966. Separation and characterization of flavor components from vegetables. p.131-152, IN: Flavor Chemistry, Advances in Chemistry Series No. 56, American Chemical Society, Washington, D.C.
48. Bernhard, Richard A. Jan. 1966. Of time and motion. Food Technology 20(1):26, 29-30.
49. Bernhard, Richard A. Feb. 1966. Feeling up to snuff? Food Technology 20(2):120-121.
50. Bernhard, Richard A. March 1966. Computers. Food Technology 20(3):256, 260, 266.
51. Bernhard, Richard A. April 1966. Computers. II. A computer language - the binary number system. Food Technology 20(4):386, 389-390.
52. Bernhard, Richard A. May 1966. Computers. III. Logic circuits. Food Technology 20(5):591-592, 595.
53. Bernhard, Richard A. June 1966. Computers. IV. Analog computers. Food Technology 20(6):731, 735.
54. Ashoor, Samy H.M., and Richard A. Bernhard. Dec. 1967. Isolation and characterization of terpenes from *Citrus reticulata* Blanco and their comparative distribution among other citrus species. Journal of Agricultural and Food Chemistry 15(6):1044-1047.
55. Bernhard, Richard A. 1968. Comparative distribution of volatile aliphatic disulfides derived from fresh and dehydrated onions. Journal of Food Science 33:298-304.
56. Jacobsen, John V., M. Yamaguchi, Louis K. Mann, F. D. Howard and Richard A. Bernhard. July 1968. An alkyl-cysteine sulfoxide lyase in *Tulbaghia violacea* and its relation to other alliinase-like enzymes. Phytochemistry 7(7):1099-1108.
57. Jacobsen, John V., M. Yamaguchi, F. D. Howard and R. A. Bernhard. Sept. 1968. Product inhibition of the cysteine sulfoxide lyase of *Tulbaghia violacea*. Archives of Biochemistry and Biophysics 127:252-258.
58. Bernhard, Richard A. Dec. 1969. The sulfur components of *Allium* species as flavoring matter. Qualitas Plantarum et Materiae Vegetabiles 28(1-3):72-84.
59. Bernhard, Richard A. Sept. 1970. Chemotaxonomy: Distribution studies of sulfur compounds in *Allium*. Phytochemistry 9(9):2019-2027.
60. Bernhard, Richard A., R.O.B. Wijesekera and C.O. Chichester. Jan. 1971. Terpenoids of cardamon oil and their comparative distribution among varieties. Phytochemistry 10(1):177-184.

61. Bernhard, Richard A., Peter R. Luthi, Takayuki Shibamoto and Frank H. Winter. Oct. 1972. Identification of *L*-asparagine in artichokes, *Cynara scolymus* L. *Lebensmittel-Wissenschaft und Technologie* 5(5):185-186.
62. Shibamoto, Takayuki, and Richard A. Bernhard. Dec. 1974. Chemical constituents of *Hypogymnia enteromorpha*. *Qualitas Plantarium - Plant Foods for Human Nutrition* 24(1/2):199-218.
63. Lee, Irene, T.A. Nickerson and R.A. Bernhard. March 1975. Adsorption of low-molecular-weight organic compounds by stable anhydrous α -lactose. *Journal of Dairy Science* 58(3):319-325.
64. McMullin, Scott L., Richard A. Bernhard and Thomas A. Nickerson. May 1975. Heats of adsorption of small molecules on lactose. *Journal of Agricultural and Food Chemistry* 23(3):452-458.
65. Yamaguchi, M., K.N. Paulson, M.N. Kinsella and R.A. Bernhard. July 1975. Effects of soil temperature on growth and quality of onion bulbs (*Allium cepa* L.) used for dehydration. *Journal of the American Society for Horticultural Science* 100(4):415-419.
66. Jennings, W.G., and R.A. Bernhard. Oct. 1975. Identification of components of the essential oil from the California pepper tree (*Schinus molle* L.). *Chemie Mikrobiologie Technologie der Lebensmittel* 4:95-96.
67. Shibamoto, Takayuki, and Richard A. Bernhard. July 1976. Effect of time, temperature, and reactant ratio on pyrazine formation in model systems. *Journal of Agricultural and Food Chemistry* 24(4):847-852.
68. Shibamoto, Takayuki, and Richard A. Bernhard. Jan. 1977. Investigation of pyrazine formation pathways in glucose-ammonia model systems. *Agricultural and Biological Chemistry* 41(1):143-153.
69. Shibamoto, Takayuki, and Richard A. Bernhard. May 1977. Investigation of pyrazine formation pathways in sugar-ammonia model systems. *Journal of Agricultural and Food Chemistry* 25(3):609-614.
70. Olano, Agustin, Richard A. Bernhard and Thomas A. Nickerson. July 1977. Alteration in the ratio of α - to β -lactose co-crystallized from organic solvents. *Journal of Food Science* 42(4):1066-1068, 1083.
71. Olano, Agustin, T.A. Nickerson and R.A. Bernhard. Nov. 1977. Recovery of lactose from aqueous solutions: Precipitation in the presence of calcium hydroxide and ammonium chloride additions. *Journal of Food Science* 42(6):1481-1483.
72. Olano, Agustin, T.A. Nickerson and R.A. Bernhard. Nov. 1977. Recovery of lactose from aqueous solutions: Precipitation with calcium chloride and sodium hydroxide. *Journal of Food Science* 42(6):1484-1486.
73. Swartz, M.L., R.A. Bernhard and T.A. Nickerson. Jan. 1978. Interactions of metal ions with lactose. *Journal of Food Science* 43(1):93-97.

74. Shibamoto, Takayuki, and Richard A. Bernhard. Jan. 1978. Formation of heterocyclic compounds from the reaction of *L*-rhamnose with ammonia. *Journal of Agricultural and Food Chemistry* 26(1):183-187.
75. Ehler, Karen F., Richard A. Bernhard and Thomas A. Nickerson. Oct. 1979. Heats of adsorption of small molecules on various forms of lactose, sucrose, and glucose. *Journal of Agricultural and Food Chemistry* 27(5):921-927.
76. Marvin, Julia W., Richard A. Bernhard and Thomas A. Nickerson. Oct. 1979. Interactions of low molecular weight adsorbates on lactose. *Journal of Dairy Science* 62(10):1546-1557.
77. McCommins, Douglas B., Richard A. Bernhard and T.A. Nickerson. April 1980. Recovery of lactose from aqueous solutions: precipitation with calcium hydroxide and sodium hydroxide. *Journal of Food Science* 45(2):362-366.
78. Bachran, Karen, and Richard A. Bernhard. June 1980. Interaction of iron(II) with lactose. *Journal of Agricultural and Food Chemistry* 28(3):536-540.
79. Kwon, Soon-Young, Richard A. Bernhard and Thomas A. Nickerson. March 1981. Recovery of lactose from aqueous solutions: precipitation with magnesium chloride and sodium hydroxide. *Journal of Dairy Science* 64(3):396-406.
80. Yanaga, Iris M., and Richard A. Bernhard. April 1981. Recovery of lactose from aqueous solutions: Precipitation with manganese(II) chloride and sodium hydroxide. *Journal of Dairy Science* 64(4):594-599.
81. Frazier, Eleanor A., and Richard A. Bernhard. April 1981. Interaction of Sunset Yellow with copper(II) ion. *Journal of Agricultural and Food Chemistry* 29(2):354-361.
82. Williams, Janet G., and Richard A. Bernhard. Aug. 1981. Amino acid-lactose interactions and their sensory consequences. *Journal of Food Science* 46(4):1245-1251, 1259.
83. Quickert, Stephen C., and Richard A. Bernhard. Oct. 1982. Recovery of lactose from aqueous solution using group IIA metal chlorides and sodium hydroxide. *Journal of Food Science* 47(5):1705-1709.
84. Bernhard, Richard A., Takayuki Shibamoto, Kenji Yamaguchi and Elaine White. April 1983. The volatile constituents of *Schinus molle* L. *Journal of Agricultural and Food Chemistry* 31(2):463-466.
85. Koyasako, A., and R.A. Bernhard. Dec. 1983. Volatile constituents of the essential oil of kumquat. *Journal of Food Science* 48(6):1807-1812.
86. Harrison, Susan K., and Richard A. Bernhard. June 1984. Time-intensity sensory characteristics of saccharin, xylitol and galactose and their effect on the sweetness of lactose. *Journal of Food Science* 49(3):780-786, 793.
87. Grace, Margaret L., and Richard A. Bernhard. Aug. 1984. Measuring vitamins A and D in milk. *Journal of Dairy Science* 67(8):1646-1654.

88. Hamblin, C.L., J.R. Heil, R.L. Merson, R.A. Bernhard and H. Patino. April 1987. Comparing flame and mechanical deaeration of high vacuum canned green beans and apple slices. *Journal of Food Science* 52(2):425-428.
89. Wong, Jennifer M., and Richard A. Bernhard. Feb. 1988. Effect of nitrogen source on pyrazine formation. *Journal of Agricultural and Food Chemistry* 36(1):123-129.
90. Heil, J.R., C.L. Hamblin, R.A. Bernhard, R.L. Merson and H. Patino. Feb. 1988. Evaluation of mechanical deaeration parameters for high vacuum canned foods. *Journal of Food Science* 53(1):157-161.
91. Huston, C.K., Jr., and R.A. Bernhard. May 1989. Flow characteristics of supercritical carbon dioxide through an integrally restricted capillary. *Journal of Chromatographic Science* 27:231-234.
92. Huston, Charles K., Jr., and Richard A. Bernhard. June 1990. Physical characteristics and chromatographic behavior of supercritical carbon dioxide. *LC-GC (Liquid Chromatography-Gas Chromatography)* 8(6):480-484.
93. Bernhard, Richard A., Ji-Cheng Jang and Josephine Dhanuwidjaja. July 1992. A convenient computer program for calculation of Kováts retention indexes. *Journal of High Resolution Chromatography* 15:478-479. (Correction/addition in *Journal of High Resolution Chromatography* 16(1):52).
94. Ji, Hong, and Richard A. Bernhard. 1992. Effect of microwave heating on pyrazine formation in a model system. *Journal of the Science of Food and Agriculture* 59(3):283-289.
95. Bemis-Young, Gwen L., Jeane Huang and Richard A. Bernhard. 1993. Effect of pH on pyrazine formation in glucose-glycine model systems. *Food Chemistry* 46(4):383-387.
96. Nishibori, Sukie, and Richard A. Bernhard. Dec. 1993. Model system for cookies: Volatile components formed from the reaction of sugar and β -alanine. *Journal of Agricultural and Food Chemistry* 41(12):2374-2377.
97. Ibañez, Elena and Richard A. Bernhard. Sept. 1996. Solid-phase microextraction (SPME) of pyrazines in model reaction systems. *Journal of the Science of Food and Agriculture* 72(1):91-96.
98. Chin, H.W., R.A. Bernhard and M. Rosenberg. Nov. 1996. Solid phase microextraction for cheese volatile compound analysis. *Journal of Food Science* 61(6):1118-1122, 1128.

Richard A. Bernhard

Reports, Regular Distribution

1. Bernhard, Richard A. Jan. 1961. Flavor nomenclature committee in action (a report by its chairman on its activities). *Food Technology* 15(1):6, 9.

Richard A. Bernhard

List of Reviews

1. Bernhard, Richard A. June 1959. Book review - Flavor Research and Food Acceptance. *Quarterly Review of Biology* 34(2):172.
2. Bernhard, Richard A. Jan. 1961. Book review - Food Chemistry by Lillian H. Meyer. *Food Technology* 15(1):14.
3. Bernhard, Richard A. April 1961. Book review - Food Flavorings: Composition, Manufacture, and Use, by Joseph Merory. *Food Technology* 15(4):18-19.
4. Bernhard, Richard A. Nov. 1962. Book review - Photometric Titrations by J.B. Headridge. *Food Technology* 16(11):71-72.
5. Bernhard, Richard A. Nov. 1962. Book review - Reagent Chemicals and Standards, 4th ed., by Joseph Rosin. *Food Technology* 16(11):72.
6. Bernhard, Richard A. Jan. 1966. Book review - The Chemistry of Natural Products 3. *Food Technology* 20(1):62, 67.
7. Bernhard, Richard A. Dec. 1967. Book review - Terpenoids in Plants, by J.B. Pridham (ed.) *Science* 158(3808):1558-1559.
8. Bernhard, R. A. March 1972. Book review - Aspects of Terpenoid Chemistry and Biochemistry, T. W. Goodwin (ed.); Terpenoids and Steroids, K. H. Overton et al. (eds.). *Science* 175 (4027):1236.

Richard A. Bernhard

List of Abstracts

1. Olano, A., R.A. Bernhard and T.A. Nickerson. 1976. Effect of organic solvents on α - and β -lactose as measured by polarimetry, gas-liquid chromatography and infrared spectroscopy. Abstract 329, 36th Annual Meeting, Institute of Food Technologists, Anaheim, California.
2. Swartz, M.L., R.A. Bernhard and T.A. Nickerson. 1976. Metal ion-lactose interaction. Abstract 330, 36th Annual Meeting, Institute of Food Technologists, Anaheim, California.
3. Shibamoto, T., and R.A. Bernhard. 1976. Pathways of pyrazine formation in glucose-ammonia model systems. Abstract 156, 172nd Annual Meeting, American Chemical Society, San Francisco, California.