

Thomas A. Nickerson

List of Publications

1. Nickerson, T.A., and S.T. Coulter. 1948. Packaging of print butter. American Butter and Cheese Review 10(13):18-28.
2. Nickerson, T.A., and S.T. Coulter. 1949. Packaging of print butter. National Butter and Cheese Journal 40(1):26-27, 52, 54, 57.
3. Nickerson, T.A., S.T. Coulter and R. Jenness. 1952. Some properties of freeze-dried milk. Journal of Dairy Science 35(1):77-85.
4. Nickerson, T.A. 1954. Lactose crystallization in ice cream. I. Control of crystal size by seeding. Journal of Dairy Science 37(9):1099-1105.
5. Nickerson, T.A., and N.P. Tarassuk. 1955. How to control shrinkage in ice cream. Journal of Dairy Science 38(11):1305-1306.
6. Nickerson, T.A. 1956. Lactose crystallization in ice cream. II. Factors affecting rate and quantity. Journal of Dairy Science 39(10):1342-1350.
7. Nickerson, T.A. 1957. Lactose crystallization in ice cream. III. Mode of action of milk powder in preventing sandiness. Journal of Dairy Science 40(3):309-313.
8. Nickerson, T.A. 1957. Seasonal variations in the citric acid distribution in milk. Journal of Dairy Science 40:600.
9. Pangborn, Rose Marie, Marion Simone and T.A. Nickerson. Dec. 1957. The influence of sugar in ice cream. I. Consumer preferences for vanilla ice cream. Food Technology 11(12):679-682.
10. Pangborn, Rose Marie, and T.A. Nickerson. Feb. 1959. The influence of sugar in ice cream. II. Consumer preference for strawberry ice cream. Food Technology 13(2):107-109.
11. Nickerson, T.A. 1960. Chemical composition of milk. Journal of Dairy Science 43(5):598-606.
12. Nickerson, T.A. 1961. Interrelationships of milk constituents. Journal of Dairy Science 44(6):1025-1035.
13. Nickerson, T.A. 1961. Seasonal changes in interrelationships among milk constituents. Journal of Dairy Science 44(7):1257-1264.
14. Desai, I.D., T.A. Nickerson and W.G. Jennings. Feb. 1961. Stability of frozen milk. Journal of Dairy Science 44(2):215-221.

15. Nickerson, T.A., and Rose Marie Pangborn. March 1961. The influence of sugar in ice cream. III. Effect on physical properties. *Food Technology* 15(3):105-106.
16. Nickerson, T.A. 1962. Lactose crystallization in ice cream. IV. Factors responsible for reduced incidence of sandiness. *Journal of Dairy Science* 43(3):354-359.
17. Tarassuk, N.P., T.A. Nickerson and M. Yaguchi. 1964. Lipase action in human milk. *Nature* 201(4916):298-299.
18. Nickerson, T.A. 1964. Changes in concentrated milk during frozen storage. *Journal of Food Science* 29(4):443-447.
19. Desai, I.D., and T.A. Nickerson. 1964. Changes in the proteins of milk destabilized during frozen storage. *Nature* 202(4928):183-184.
20. Nickerson, T.A., E.E. Moore and A.A. Zimmer. 1964. Spectrophotometric determination of calcium in milk using 2,2'-(ethanediylidenedinitrilo)diphenol [glyoxal bis(2-hydroxyanil)]. *Analytical Chemistry* 36:1676-1677.
21. Odagiri, S., and T.A. Nickerson. 1964. Chain length determination of polyphosphates. *Journal of Dairy Science* 47(8):920-921.
22. Odagiri, S., and T.A. Nickerson. 1964. Complexing of calcium by hexametaphosphate, oxalate, citrate, and EDTA in milk. I. Effects of complexing agents on turbidity and rennet coagulation. *Journal of Dairy Science* 47(12):1306-1309.
23. Odagiri, S., and T.A. Nickerson. 1965. Complexing of calcium by hexametaphosphate. Oxalate, citrate, and ethylenediamine-tetraacetate in milk. II. Dialysis of milk containing complexing agents. *Journal of Dairy Science* 48(1):19-22.
24. Nickerson, T.A. 1965. Lactose. Chapter 6, p.224-259, IN: B.H. Webb and A.H. Johnson (eds.), Fundamentals of Dairy Chemistry, AVI Publishing Company, Westport, Connecticut.
25. Odagiri, S., and T.A. Nickerson. 1965. Micellar changes in skimmilk treated with alkali or acid. *Journal of Dairy Science* 48(9):1157-1160.
26. Nickerson, T.A. 1966. Changes in teaching of the biological and other sciences at the University of California and implications for food science. *Journal of Dairy Science* 49(5):573-575.
27. Haase, G., and T.A. Nickerson. 1966. Kinetic reactions of alpha- and beta-lactose. I. Mutarotation. *Journal of Dairy Science* 49(2):127-132.
28. Haase, G., and T.A. Nickerson. 1966. Kinetic reactions of alpha- and beta-lactose. II. Crystallization. *Journal of Dairy Science* 49(7):757-761.

29. Grindrod, Jean, and T.A. Nickerson. 1967. Changes in milk proteins treated with hydrogen peroxide. *Journal of Dairy Science* 50(2):142-146.
30. Grindrod, Jean, and T.A. Nickerson. 1967. Effect of various gums on skimmilk and purified milk proteins. *Journal of Dairy Science* 51(6):834-841.
31. Twieg, W.C., and T.A. Nickerson. 1968. Kinetics of lactose crystallization. *Journal of Dairy Science* 51(11):1720-1724.
32. Patel, K.N., and T.A. Nickerson. 1970. Influence of sucrose on the mutarotation velocity of lactose. *Journal of Dairy Science* 53(12):1654-1658.
33. Nickerson, T.A. 1970. The purification and properties of yeast beta-galactosidase. *New Zealand Journal of Dairy Science and Technology* 5:167.
34. Nickerson, T.A. 1970. Lactose. Chapter 12, p.356-380, IN: B.H. Webb and E.O. Whittier (eds.), Byproducts from Milk, AVI Publishing Company, Westport, Connecticut.
35. Patel, K.N., and T.A. Nickerson. 1971. Influence of sucrose, glucose and lactose on loss of water from solutions. *Journal of Food Science* 36:495-497.
36. Nickerson, T.A., and R.M. Dolby. 1971. Adsorption of diacetyl by lactose and other sugars. *Journal of Dairy Science* 54(8):1212-1214.
37. Nickerson, T.A., and E.E. Moore. 1972. Solubility interrelations of lactose and sucrose. *Journal of Food Science* 37:60-61.
38. Nickerson, T.A., and K.N. Patel. 1972. Crystallization in solutions supersaturated with sucrose and lactose. *Journal of Food Science* 37:693-697.
39. Lim, S.G., and T.A. Nickerson. 1973. Effect of methanol on the various forms of lactose. *Journal of Dairy Science* 56:843-848.
40. Nickerson, T.A., and E.E. Moore. 1974. Alpha-lactose and crystallization rate. *Journal of Dairy Science* 57:160-164.
41. Nickerson, T.A. 1974. Lactose. Chapter 6, p.273-324, IN: Webb, Johnson and Alford (eds.), Fundamentals of Dairy Chemistry, 2nd Ed., AVI Publishing Company, Westport, Connecticut.
42. Nickerson, T.A., and E.E. Moore. 1974. Factors influencing lactose crystallization. *Journal of Dairy Science* 57:1315-1319.
43. Nickerson, T.A., and S.G. Lim. 1974. Effects of various alcohols on lactose. *Journal of Dairy Science* 57:1320-1324.
44. Coughlin, J.R., and T.A. Nickerson. 1975. Acid-catalyzed hydrolysis of lactose in whey and aqueous solutions. *Journal of Dairy Science* 58:169-174.
45. Lee, I., T.A. Nickerson and R.A. Bernhard. March 1975. Adsorption of low-molecular-weight organic compounds by stable anhydrous alpha-lactose. *Journal of Dairy Science* 58(3):319-325.

46. McMullin, S.L., R.A. Bernhard and T.A. Nickerson. May 1975. Heats of adsorption of small molecules on lactose. *Journal of Agricultural and Food Chemistry* 23(3):452-458.
47. Mahoney, R.R., T.A. Nickerson and J.R. Whitaker. Nov. 1975. Selection of strain, growth conditions, and extraction procedures for optimum production of lactase from *Kluyveromyces fragilis*. *Journal of Dairy Science* 58(11):1620-1629.
48. Nickerson, T.A., I.F. Vujicic and A.Y. Lin. March 1976. Colorimetric estimation of lactose and its hydrolytic products. *Journal of Dairy Science* 59:386-390.
49. Nickerson, T.A. March 1976. Use of milk derivative, lactose, in other foods. *Journal of Dairy Science* 59:581-587.
50. Majd, Fatemeh, and T.A. Nickerson. June 1976. Effect of alcohols on lactose solubility. *Journal of Dairy Science* 59:1025-1032.
51. Nickerson, T.A. 1977. Lactose sources and recovery. Chapter 5, p.77-90, IN: G.G. Birch and R.S. Shallenberger (eds.), Developments in Food Carbohydrates - 1, Applied Science Publishers Ltd., London.
52. Vujicic, I.F., A.Y. Lin and T.A. Nickerson. Jan. 1977. Changes during acid hydrolysis of lactose. *Journal of Dairy Science* 60(1):29-33.
53. Lin, A.Y. and T.A. Nickerson. Jan. 1977. Acid hydrolysis of lactose in whey versus aqueous solutions. *Journal of Dairy Science* 60(1):34-39.
54. Olano, Agustin, Richard A. Bernhard and Thomas A. Nickerson. July 1977. Alteration in the ratio of alpha- to beta-lactose co-crystallized from organic solvents. *Journal of Food Science* 42(4):1066-1068, 1083.
55. Nickerson, T.A., and I.F. Vujicic. July 1977. Iskoristavanje i upotreba surutke. (Current trends in whey utilization and disposal.) *Mljekarstvo* 27(7):146-151.
56. Valle-Vega, P., and T.A. Nickerson. Aug. 1977. Measurement of lactose crystal growth by image analyzer. *Journal of Food Science* 42(4):1069-1072.
57. Valle-Vega, P., T.A. Nickerson, E.E. Moore and M. Gonzenbach. Oct. 1977. Variability of growth of lactose crystals under commercial treatment. *Journal of Dairy Science* 60(10):1544-1549.
58. 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.
59. 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.

60. Nickerson, Thomas A. 1978. Lactose. p.453-455, IN: Martin S. Peterson and Arnold H. Johnson (eds.), Encyclopedia of Food Science, AVI Publishing Co., Westport, Connecticut.
61. 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.
62. Nickerson, T.A. Jan. 1978. Why use lactose and its derivatives in food? *Food Technology* 32(1):40-46.
63. Majd, Fatemeh, and Thomas A. Nickerson. Jan. 1978. Effect of ethanol on optical rotation, velocity of mutarotation, and equilibrium constant of lactose. *Journal of Agricultural and Food Chemistry* 26(1):207-210.
64. Tweedie, Leigh S., R.D. Macbean, and T.A. Nickerson. Feb. 1978. Present and potential uses for lactose and some lactose derivatives. *Food Technology in Australia* 33(2):57-62.
65. Shah, N.O., and T.A. Nickerson. July 1978. Functional properties of hydrolyzed lactose: Crystallization. *Journal of Food Science* 43(4):1085-1086.
66. Shah, N.O., and T.A. Nickerson. July 1978. Functional properties of hydrolyzed lactose: Solubility, viscosity and humectant properties. *Journal of Food Science* 43(4):1081-1084.
67. Shah, N.O., and T.A. Nickerson. Sept. 1978. Functional properties of hydrolyzed lactose: Relative sweetness. *Journal of Food Science* 43(5):1575-1576.
68. Nickerson, Thomas A. Aug. 1979. Lactose chemistry. *Journal of Agricultural and Food Chemistry* 27(4):672-677.
69. 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.
70. 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.
71. 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.
72. 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.

Thomas A. Nickerson

Reports, Regular Distribution

1. Nickerson, T.A. 1951. Texture control. *Ice Cream Field* 57(5):68-70.
2. Nickerson, T.A. 1951. Low lactose dry milk solids in ice cream. *Ice Cream Field* 58(4):90-91.
3. Cruess, W.V., Roy Binder and T.A. Nickerson. April 1953. Raisin ice cream. *Ice Cream Review* 36(9):62,76-78,80.
4. Nickerson, T.A. Oct. 1954. Raisin-nut ice cream. *Ice Cream Field* 64(4):92-94.
5. Trautman, J.C., and T.A. Nickerson. Oct. 1955. Shrinkage as affected by milk protein variations. *Ice Cream Field* 66(4):127-128.
6. Nickerson, T.A. May 1957. Ice cream and lactose crystallization. *Western Dairy Foods Review* 61(5):12, 48.
7. Nickerson, T.A. 1957. Sweetness preferences in ice cream. 53rd Annual Meeting of the International Association of Ice Cream Manufacturers Proceedings 2:44-48.
8. Nickerson, T.A. Oct. 1957. Seasonal fluctuations in raw milk constituents. p.21-28, IN: *Proceedings, Milk Industry Foundation, 50th Annual Convention, Laboratory Section*.
9. Pangborn, R.M., M. Simone and T.A. Nickerson. Oct. 1957. Sweetness preference in ice cream. IN: 53rd Annual Meeting of the International Association of Ice Cream Manufacturers Proceedings 2.
10. Nickerson, T.A., N.L. Hubbert and C.I. Camobell. July 1958. Variation in milk constituents. *California Agriculture* 12(7):4-6.
11. Nickerson, T.A. Jan. 1958. Variations in the constituents of milk and their significance. p.32-36, IN: *California Dairy Industry Conference Proceedings*.
12. Nickerson, T.A. Jan. 1958. Sweetness preference in ice cream. p.80-83, IN: *California Dairy Industry Conference Proceedings*.
13. Pangborn, Rose Marie, and Thomas A. Nickerson. Nov. 1958. Sweeter ice cream preferred. *California Agriculture* 12(11):15.
14. Tarassuk, N.P., and T.A. Nickerson. 1962. Evaluation of the lactometer method for determining solids-not-fat. p.140-146. IN: *California Dairy Industry Conference Proceedings*.
15. Nickerson, T.A., and W.L. Dunkley. 1963. Stability factors in frozen and incubated concentrated milks. p.72-79, IN: *Proceedings of the Sixth Milk Concentrates Symposium*.

16. Nickerson, T.A. 1963. Composition control of ice cream. p.123-126, IN: California Dairy Industry Conference Proceedings.
17. Nickerson, T.A. March 1963. Economy effort seen real threat to product quality. *Ice Cream World* 69(6):22-24.
18. Nickerson, T.A. March 1963. Quality equals acceptability for ice cream. *Dairy Foods Review* 67(3):10-12.
19. Nickerson, T.A. Sept. 1963. Know the cause to control "sand" defect in ice cream. *Ice Cream World* 70(7):19.
20. Nickerson, T.A. March 1964. Stabilizers in ice cream. *Western Dairy Foods Review* 68(3):16-17.
21. Nickerson, T.A. 1969. The concentration of milk products by reverse osmosis. p.107-110, IN: Proceedings, Market Milk Week Conference, Massey University, New Zealand.
22. Nickerson, T.A. Feb. 1973. Effect of composition on ice cream quality. *Dairy and Ice Cream Field* 156(2):36, 65-66.
23. Nickerson, T.A. 1974. Potential for hydrolyzed lactose. p.98-103, IN: Proceedings, Whey Products Conference, Chicago, Illinois.
24. Nickerson, T.A. May 1978. Lactose: The unsung sweetener. *Food Engineering* 50(5):154-155.

Thomas A. Nickerson

Reports, Limited Distribution

1. Nickerson, T.A., and R.L. Baldwin. 1965. Milk flavor unaffected by plastic baler twine. California Agriculture 19:5.
2. Nickerson, T.A. April 1966. Reactions to recent curricula developments at California. 12th Spring Conference, Deans and Directors of Resident Instruction, 12 Western States Association of State Universities and Land Grant Colleges, Logan, Utah.
3. Nickerson, T.A. April 1968. A Peace Corps graduate program. 14th Spring Conference, Deans and Directors of Resident Instructors of Agriculture, 12 Western States Association of State Universities and Land Grant Colleges, Idaho.
4. Nickerson, T.A. 1969. A successful educational experiment. University of California, Davis California Aggie Alumni Association, "Dimension".
5. Nickerson, T.A. March 1973. Lactose and milk intolerance. The National Ice Cream Retailers Association, Incorporated. Production Tips.

Thomas A. Nickerson

List of Abstracts

1. Nickerson, T.A. 1953. Research activities in ice cream. Western Dairy Foods Review 57(6):52.
2. Nickerson, T.A. 1955. Controlling lactose crystallization. Western Dairy Foods Review 59(6):60.
3. Nickerson, T.A. Jan. 1956. Retail cabinets affect quality. Dairy Industry Conference.
4. Reynolds, A.E., and T.A. Nickerson. Jan. 1956. Strawberry ice cream clinic. Dairy Industry Conference.
5. Nickerson, T.A. 1960. An explanation for reduced incidence of sandiness. Journal of Dairy Science 43:847.
6. Desai, I.D., T.A. Nickerson and W.G. Jennings. 1960. Studies on the stability of frozen milk. Journal of Dairy Science 43:857.
7. Rao, G.R., T.A. Nickerson and W.L. Dunkley. 1964. Rheology of concentrated milk. American Dairy Science Association Annual Meeting. Paper 33. Journal of Dairy Science 47:670. (Abstract.)
8. Odagiri, S., and T.A. Nickerson. 1964. Complexing of calcium by hexametaphosphate, oxalate, citrate, and EDTA in milk. American Dairy Science Association Annual Meeting Paper 47.
9. Odagiri, S., and T.A. Nickerson. 1964. Complexing of calcium by hexametaphosphate, oxalate, citrate, and EDTA in milk. Journal of Dairy Science 47:673-674.
10. Haase, Gottfried, and T.A. Nickerson. 1965. Aspects of the mutarotation of lactose. American Dairy Science Association Annual Meeting Paper M26. Journal of Dairy Science 48:768.
11. Grindrod, Jean, and T.A. Nickerson. 1965. Glycomacopeptide identification by disc gel electrophoresis. American Dairy Science Association Annual Meeting Paper M44. Journal of Dairy Science 48:772.
12. Odagiri, S., and T.A. Nickerson. 1965. Influence of alkali and acid on milk protein. American Dairy Science Association Annual Meeting Paper M49. Journal of Dairy Science 47:773.
13. Grindrod, Jean, and T.A. Nickerson. 1967. Carrageenan and milk protein treated with hydrogen peroxide. American Dairy Science Association Annual Meeting Paper 53. Journal of Dairy Science 50:948.

14. Twieg, W.C. and T. A. Nickerson. 1968. Kinetics of lactose crystallization. American Dairy Science Association Annual Meeting Paper 56. Journal of Dairy Science 51:937.
15. Coughlin, J.R., and T.A. Nickerson. 1974. Acid-catalyzed hydrolysis of lactose in whey and aqueous solutions. Journal of Dairy Science 57:583.
16. Nickerson, T.A., I.F. Vujicic and A.Y. Lin. 1975. Colorimetric estimation of lactose and its hydrolytic products. Journal of Dairy Science 58:790.
17. Olano, A., R.A. Bernhard and T.A. Nickerson. 1976. Effect of organic solvents on alpha- and beta-lactose as measured by polarimetry, gas-liquid chromatography and infrared spectroscopy. Abstract 329, 36th Annual Meeting, Institute of Food Technologists, Anaheim, California.
18. 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.
19. Shah, N.O., and T.A. Nickerson. 1976. Functional properties of hydrolyzed lactose. Abstract 327, 36th Annual Meeting, Institute of Food Technologists, Anaheim, California.
20. Valle-Vega, P., and T.A. Nickerson. 1976. Measurement of lactose crystal growth by image analyzer. Abstract 328, 36th Annual Meeting, Institute of Food Technologists, Anaheim, California.
21. Nickerson, T.A. June 1977. Why lactose and its derivatives in food? Abstract 362, 37th Annual Meeting, Institute of Food Technologists, Philadelphia, Pennsylvania.