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November 1979

**UNITED STATES ARMY
NATICK RESEARCH and DEVELOPMENT COMMAND
NATICK, MASSACHUSETTS 01760**



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PREFACE

This bibliography is a list of technical publications and papers by personnel of the US Army Natick Research and Development Command and its contractors for the period October 1978 through September 1979. The arrangement is by organizational elements.

Reprints of journal articles, in some cases, are available from the individual authors. Copies of technical reports may be obtained from (1) The Defense Documentation Center, Cameron Station, Alexandria, Virginia 22314, or (2) the National Technical Information Service, Springfield, Virginia 22161. The "AD" number should be cited when ordering copies of reports. Those reports marked with an asterisk (*) are not available for distribution outside the agencies of the US Government. Technical papers refer to presentation for which no printed copies exist.

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US ARMY NATICK RESEARCH AND DEVELOPMENT COMMAND

OFFICE OF THE COMMANDER

Technical Papers

1. PENNEY, H. F. Welcome remarks. Research and Development Associates for Military Food and Packaging Systems, Inc., US Army Natick Research and Development Command, Natick, MA, 7 November 1978.
2. _____ Accomplishments and current programs at US Army Natick Research and Development Command. Research and Development Associates for Military Food and Packaging Systems, Inc., New York, NY, 24 April 1979.

DEPUTY COMMANDER

Technical Papers

3. DIXON, B. D. Introduction of new equipment. US Army QM Officer Advanced Class 78-3, US Army Quartermaster School, Fort Lee, VA, 30 November 1978.
4. MARNON, D. J. Remarks. Tri-Service Conference on Survival Kits and Vests, US Army Natick Research and Development Command, Natick, MA, 20 March 1979.
5. _____ The US Army Natick Research and Development Command - making things better. US Army QM Officer Advanced Class 79-1, US Army Quartermaster School, Fort Lee, VA, 1 May 1979.
6. _____ Remarks. Meal, Ready-To-Eat, Individual (MRE) Training Session, US Army Natick Research and Development Command, Natick, MA, 21 May 1979.
7. _____ Remarks. Memorial Day 1979 Observance, Town of Natick Common, Natick, MA, 28 May 1979.
8. _____ Remarks. Annual Meeting, USMA Admissions Program on West Point and US Army ROTC Opportunities, US Army Natick Research and Development Command, Natick, MA, 29 May 1979.
9. _____ Remarks. National Research Council Committee on Military Helmets, US Army Natick Research and Development Command, Natick, MA, 7 June 1979.
10. _____ Remarks. Bi-ennial Meeting, Bay State Council of Chapters, The Retired Officers Association, US Army Natick Research and Development Command, Natick, MA, 9 June 1979.
11. RUBIN, G. R. The US Army Natick Research and Development Command - making things better. US Army QM Officer Advanced Class 79-2, US Army Quartermaster School, Fort Lee, VA, 14 August 1979.

OFFICE OF TECHNICAL DIRECTOR

Technical Papers

12. ROSS, E. W. Food for some statistical thoughts. SIAM Lecture, Wellesley College, MA, 26 April 1978.
13. _____, and N. PEITERSEN. A mathematic model for enzymatic hydrolysis and fermentation of cellulose by Trichoderma. 24th Conference of Army Mathematicians, University of Virginia, Charlottesville, VA, 1-3 June 1978.
14. _____, and R. N. MACNAIR. Statistical analysis of experiments in sorptivity. 24th Conference on Design of Experiments in Army RDT&E, Mathematics Research Center, University of Wisconsin, Madison, WI, 4-6 October 1978.
15. _____ Mathematic modeling as applied to enzymatic hydrolysis of cellulose. SIAM Lecture, University of Southeastern Massachusetts, South Dartmouth, MA, 1 November 1978.
16. LANDOWNE, M., and E. W. ROSS. Assessment of cardiac mechanics during isovolumic systole. 3rd International Congress on Biorheology, La Jolla, CA, 28 August-1 September 1978.

ENGINEERING PROGRAMS MANAGEMENT OFFICE

Technical Papers

17. DOYLE, W. J. NARADCOM's involvement in the US/Canadian Defense Development Sharing Program. DARCOM Workshop on US/Canadian Defense Development Sharing Program, ARRADCOM, Dover, NJ, 26 April 1979.
18. LEVELL, E. F. How the Federal Government will work with industry under the new government policy for acquisition and distribution of commercial food products and food equipment. Research and Development Associates for Military Food and Packaging Systems, Inc., US Army Natick Research and Development Command, Natick, MA, 9 November 1978.
19. _____ ILS at NARADCOM. Course on Integrated Logistics Support Management Techniques in Materiel Acquisition. US Army Natick Research and Development Command, Natick, MA, 22 August 1979.
20. TARLOW, I. The NARADCOM/TSARCOM interface. DARCOM Mid-Year Integrated Logistic Support Meeting, Troy, MI, 5-7 June 1979.

OPERATIONS RESEARCH AND SYSTEMS ANALYSIS OFFICE

Technical Reports

21. DAVIS, M., P. BRANDLER, W. WILKINSON, G. ECCLESTON, L. SYMINGTON, M. BERMAN, and B. BISSONNETTE. An evaluation of the conventional Marine Corps garrison food service system at Marine Corps Base Twentynine Palms. NATICK/TR-79/039, September 1979.
22. KIREJCZYK, H., T. BONCZYK, and G. HERTWECK. Evaluation of alternative field feeding systems for the Army Field Medical Units. NATICK/TR-79/040, July 1978.

Journal Articles

23. HERZ, M., and J. SOUDER. Preparation systems have significant effect on costs. J. Amer. Hospital Assoc., 50(1): 89-92 (1979).

Technical Papers

24. HERTWECK, G. Fast food facilities planning in the military. National Security Industrial Association, Symposium on Eating Habits of the New Generation, Washington, DC, 14 March 1979.
25. HERZ, M. Evaluation of alternative approaches to hospital food service systems. Management Seminar, Hospital Food Administrator's Association, Inc. of Greater New York, New York, NY, 24 May 1979.
26. LEITCH, D. P. Early results from the Saratoga test. Research and Development Associates for Military Food and Packaging Systems, Inc., US Army Natick Research and Development Command, Natick, MA, 8 November 1978.

Other Publications

27. LEITCH, D., L. GREINER, and L. BARNES. Putting judgment back into decisions. In Harvard Business Review on Human Relations. R. F. Lewis (ed.). Harper, New York, NY, 1979, pp. 90-103.

TECHNICAL LIBRARY

Technical Reports

28. Bibliography of technical publications and papers:
October 1977 - September 1978. US Army Natick
Research and Development Command. NATICK/TR-79/
001, November 1978.

AERO-MECHANICAL ENGINEERING LABORATORY

Technical Reports

29. BARCA, F. D. On the notions of free drop and fragility ratings. NATICK/TR-79/009, October 1978.
30. _____ Experimental measurement of strain and deflection in a uniformly loaded simply supported composite panel. NATICK/TR-79/018, November 1978 (AD A070917).
31. KIREJCZYK, H., R. BOURASSA, and J. M. SIEGEL. Systems analysis review of US Readiness Command Joint Task Force (JTF-7) shelters needs. NATICK/TR-78/015, September 1977.
32. PILSWORTH, M. N. The calculation of heat loss from tents. NATICK/TR-79/017.
33. STEEVES, E. C. Pressure stabilized beam finite element. NATICK/TR-79/002, December 1978 (AD A064 732).
34. _____ Fabrication and testing of pressurized rib tents. NATICK/TR-79/008, April 1979.
35. _____ Optimum design of pressure stabilized beams. NATICK/TR-79/019, August 1979.

Technical Papers

36. BARNARD, G. Determination of meaningful performance parameters from bench tests of barometric staging units. AIAA 6th Aerodynamic Deceleration and Balloon Technology Conference, Houston, TX, 6 March 1979.
37. GANDHI, K. R., D. W. OPLINGER, and E. C. STEEVES. Development of composite tent frame structure. 4th Conference on Fibrous Composites in Structural Design, San Diego, CA, 14-17 November 1978.
38. GOODRICK, T. F. Hardware options for gliding airdrop guidance systems. AIAA 6th Aerodynamic Deceleration and Balloon Technology Conference, Houston, TX, 3-6 March 1979.

AERO-MECHANICAL ENGINEERING LABORATORY

Technical Papers (continued)

39. GOODRICK, T. F. Simulation studies of the flight dynamics of gliding parachute systems, AIAA 6th Aerodynamic Deceleration and Balloon Technology Conference, Houston, TX, 3-6 March 1979.

Other Publications

40. FARINACCI, A. L. Airdrop Controlled Exit System (ACES) - advanced development investigation. AAI Corporation, Contract No. DAAK60-77-C-0076. Airdrop Engineering Laboratory Engineering Report No. ER-9514, November 1978.

Patents

41. SHOPALOVICH, P. Flexible slide fastener. US Patent No. 4,130,917, 26 December 1978.

CLOTHING, EQUIPMENT AND MATERIALS ENGINEERING LABORATORY

Technical Reports

42. COPLAN, M. J., and G. LOPATIN. Preparation of activated carbon-filled microporous hollow multifilament - a summary report. FRL, An Albany International Co., Contract No. DAAG17-76-C-0085. NATICK/TR-78/036, (CEMEL-189), November 1978 (AD A067 663).
43. DEVARAKONDA, V. K. Evaluation of an acoustic technique as a nondestructive method of measuring UV degradation of nylon rip-stop fabric. NATICK/TR-79/031, (CEMEL-201), March 1979.
44. FERRELL, J. K., R. W. ROUSSEAU, and A. P. ANEJA. Perspiration poisoning of protective clothing materials Part I - Experimental results and evaluation. North Carolina State University Dept. of Chemical Engineering, Contract No. DAAG17-72-G0004. NATICK/TR-76/13, (CEMEL-165), June 1974.
45. _____, M. R. BRANSCOME, and R. W. ROUSSEAU. Perspiration poisoning of protective clothing materials Part II - Mathematical model for a complex adsorption bed. North Carolina State University Dept. of Chemical Engineering, Contract No. DAAG17-72-G0004. NATICK/TR-75/55 (CEMEL-166), June 1974.
46. HERZ, M. L., J. A. SOUSA, L. A. LEVASSEUR, and E. M. HEALY. The triarylmethane photochromic system for flashblindness protection. NATICK/TR-79/004, (CEMEL-193), August 1978.
47. RAMSLEY, A. O., W. B. BUSHNELL, and J. L. CORGAN. Design and fabrication of a textured helmet cover. Brunswick Corporation, Contract No. DAAG17-76-C-0075. NATICK/TR-79/025, (CEMEL-198), December 1978.
48. REMY, D. E., L. A. LAVASSEUR, J. A. SOUSA, and M. C. HENRY. Examination of volatile components from flame resistant nomex fabrics. NATICK/TR-78/034, (CEMEL-190), June 1978.
49. WHITE, R. United States Army anthropometry: 1946-1977. NATICK/TR-79-007, (CE&MEL-191), July 1978 (AD A068 095).
50. _____, and E. CHURCHILL. United States Marine Corps anthropometry. NATICK/TR-78/021, (CEMEL-185), December 1977.

CLOTHING, EQUIPMENT AND MATERIALS ENGINEERING LABORATORY

Journal Articles

51. ARONS, G., R. MACNAIR, H. HOGAN, M. COPLAN, and G. LOPATIN. Novel sorbent yarns and fabrics containing activated carbon. *Text. Chem. Color.*, 11(1): 24-27 (1979).
52. ASSAF, J. E. Insulated military footwear. *US Army Mantech Journal*, 3(2): (1978).
53. BORNSTEIN, J., S. E. HUNT, J. D. MINECK, and D. E. REMY. Observations on the synthesis and isolation of 2-methylbenz (f) isoindale. *J. Org. Chem.*, 44(5): 805-807 (1979).
54. WEINSTEIN, J., R. C. CLAPP, M. NAKASHIMA, and J. A. SOUSA. Synthesis and fluorescence properties of halogenated aminoanthroquinones. *J. Chem. Eng. Data*, 24(1): 74-75 (1979).

Technical Papers

55. ARONS, G., R. MACNAIR, H. HOGAN, M. COPLAN, and G. LOPATIN. Novel sorbent yarns and fabrics containing activated carbon. National Meeting, American Association of Textile Chemists and Colorists, Anaheim, CA, 1 November 1978.
56. _____, R. MACNAIR, H. HOGAN, M. COPLAN, and G. LOPATIN. Novel sorbent yarns and fabrics containing activated carbon. Technical Meeting, American Association of Textile Chemists and Colorists, Methuen, MA, 30 March 1979.
57. HANSEN, J. V. E. A nondestructive testing technique for polyamides used in life support equipment. 12th Commonwealth Defense Conference, Operational Clothing & Combat Equipment, Ghana, 28 August-8 September 1978.
58. _____ Development of new U.S. Army helmet & vest for the combat soldier. 12th Commonwealth Defense Conference, Operational Clothing & Combat Equipment, Ghana, 28 August-8 September 1978.
59. _____ Life support requirements in the ground environments. SAFE Symposium, San Diego, CA, 8-12 October 1978.
60. _____ Fiber opportunities in clothing & equipment. Workshop on New Directions in Fiber Research, Wrightsville, NC, 25-27 October 1978.

CLOTHING, EQUIPMENT AND MATERIALS ENGINEERING LABORATORY

Technical Papers (continued)

61. HANSEN, J. V. E. Military fabrics leading from behind. 49th Annual Research & Technology Conference, New York City, NY, 28-29 March 1979.
62. MACNAIR, R. Novel sorptive yarns & fabrics containing deactivated carbon. American Association of Textile Chemists and Colorists, 1978 National Technical Conference, 31 October-5 November 1978.
63. ROSEN, L. R. The developmental cycle of a clothing item using the CVC clothing system as a case in point. Seminar, Cornell University, Ithaca, NY, 25-27 April 1979.

FOOD ENGINEERING LABORATORY

Technical Reports

64. BRYNJOLFSSON, A. Cost of irradiating bacon and the associated energy savings. NATICK/TR-79/022, (FEL-89), March 1979.
65. DARSCH, G., R. YOUNG, C. SHAW, and J. TUOMY. Entree production guides for modified diets at Walter Reed Army Medical Center (Part IV: Meat substitute entrees). NATICK/TR-79/013, (FEL-92), June 1979.
66. _____, C. SHAW, and J. TUOMY. Examination of patient tray food service equipment: an evaluation of the Sweetheart food service cart. NATICK/TR-79/026, (FEL-86), June 1979.
67. HOWKER, J., P. ANGELINI, and E. WIERBICKI. The effect of radurization on the pH, free water, meat swelling and volatile organic compound concentrations of stored chicken meat. NATICK/TR-79/034, (FEL-63), March 1977.
68. HU, K., J. SWIFT, G. HUDSON, R. LAMPI, and J. TUOMY. Quantitative analysis of energy usage in central food preparation system at Fort Lee, Virginia. NATICK/TR-79/032, (FEL-94), June 1979.
69. SHAW, C., V. LOVERIDGE, G. DARSCH, and J. TUOMY. Entree production guides for modified diets at Walter Reed Army Medical Center (Part II: Pureed bland entrees). NATICK/TR-79/011, (FEL-93), June 1979.
70. _____ Entree production guides for modified diets at Walter Reed Army Medical Center, Part III: Dental liquid. NATICK/TR-79/012, (FEL-90), April 1979.
71. TUOMY, J. M., J. W. MCNUTT, J. SWIFT, G. J. LEGRIS, P. T. BURKE, and F. A. COSTANZA. Meat entree operation guides developed for use in Fort Lee Interim Central Food Preparation Facility. NATICK/TR-79/015, (FEL-84), November 1978.

FOOD ENGINEERING LABORATORY

Journal Articles

72. COHEN, J., and E. WIERBICKI. Thermal processing times and thermodynamic properties of canned meat rolls. *Trans. Amer. Soc. Agric. Eng.*, 21(6): 1242-1245 (1978).
73. DECAREAU, R. B. Microwaves and nutrition. *Professional Nutritionist*, 11(3): 9-10 (1979).
74. DRIVER, M. G., and F. J. FRANCIS. Purification of phytolaccanin (betanin) by removal of phytolaccatoxin from *Phytolacca americana*. *J. Food Sci.*, 44(2): 521-523 (1979).
75. _____, and F. J. FRANCIS. Stability of phytolaccanin, betanin and FD&C red #2 in dessert gels. *J. Food Sci.*, 44(2): 518-520 (1979).
76. HARRIS, N. E., D. E. WESTCOTT, A. R. RAHMAN, R. A. KLUTER, and M. M. ROBERTSON. Bulgar - shelf life studies. *J. Food Process. Preserv.*, 2(1): 55-62 (1978).
77. KAMAREI, A., M. KAREL, and E. WIERBICKI. Spectral studies on the role of ionizing radiation in color changes of rad-appertized beef. *J. Food Sci.*, 44(1): 25-32 (1979).
78. RAHMAN, A. (Contributor) Future food sources - Plant production under controlled environment. *Food Process.*, 40(7): 33 (1979).
79. SCHULZ, G. L., and H. A. HOLLENDER. Retortable food pouches for military rations. *J. Food Protect.*, 41(10): 832-833 (1978).
80. SIMIC, M. G., and I. A. TAUB. Fast electron transfer processes in cytochrome c and related metalloproteins. *Biophys. J.*, 24(1): 285-294 (1978).
81. _____, M. Z. HOFFMAN, R. P. CHENEY, and Q. G. MULAZZANI. One-electron reduction of tris (2,2'-bipyridine) and tris (1,10-phenanthroline) complexes of cobalt (III) in aqueous solution. *J. Phys. Chem.*, 83(4): 439-443 (1979).
82. TAUB, I. A., F. M. ROBBINS, M. G. SIMIC, J. E. WALKER, and E. WIERBICKI. Effect of irradiation on meat proteins. *Food Technol.*, 33(5): 184-193 (1979).

FOOD ENGINEERING LABORATORY

Journal Articles (continued)

83. WANG, C., and A. BRYNJOLFSSON. An equation in microbiology and its computer-aided solutions. Amer. Phys. Soc. Bull., 24: 565 (1979).

Technical Papers

84. COHEN, J., G. SHULTS, J. HOWKER, and V. MASON. Measurement of color of cured beef and pork muscle preserved by freezing and irradiation. Winter Meeting, American Society of Agricultural Engineers, Chicago, IL, 18-20 December 1978.
85. DECAREAU, R. V. An automated microwave-powered prepared meal vending unit. Food Service Systems Meeting, Arlington, VA, 4 April 1979.
86. _____ Application of metal as a microwave oven utensil. International Microwave Power Institute, Cooking Appliance Section Workshop, Sacramento, CA, 9 April 1979.
87. _____ Future microwave oven technology for the food service industry. Annual Meeting, National Restaurant Association, Chicago, IL, 21 May 1979.
88. DIZDAROGLU, M., M. SIMIC, and H. SCHOTT. Separation and sequencing of pyrimidine deoxytetra- and deoxypentynucleotide sequence isomers by HPLC. American Chemical Society Meeting, Washington, DC, 9-14 September 1979.
89. HALLIDAY, J., J. CASPERSEN, C. NICKERSON, C. REES, and I. TAUB. ESR studies of transient free radicals in irradiated food components. 5th Conference on Small Accelerators, Denton, TX, 7 November 1978.
90. HEILIGMAN, F., V. MASON, and E. WIERBICKI. Elimination or reduction of nitrite in pre-fried bacon preserved by irradiation. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 10-13 June 1979.
91. HOLLENDER, H. Current food research and development in the military that applies to the food service industry. 20th Meeting, Society for the Advancement of Food Service Research, Michigan State University, E. Lansing, MI, 3 November 1978.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

92. HOLLENDER, H. Food research and development for the military. Hancock United Church of Christ, Men's Club, Lexington, MA, 11 January 1979.
93. _____ Current food research and development in the military applicable to the food service industry. Massachusetts Food Service Educational Council, Boston, MA, 17 January 1979.
94. _____ Food research and development for the military. Lexington Rotary Club, Lexington, MA, 26 February 1979.
95. HOWKER, J., V. MASON, and E. WIERBICKI. Reduction of added nitrite level in ham preserved by irradiation. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 10-13 June 1979.
96. KLICKA, M. Space foods and other unique food products under development for military use. University of New Hampshire, Durham, NH, 9 September 1978.
97. _____ Future focus on foods. Massachusetts Home Economics Association, Annual Meeting, Framingham State College, Framingham, MA, 28 April 1979.
98. LAMPI, R. A. Update on food service related research & development at NARADCOM. DoD Food Service Facility & Equipment Planning Board, U.S. Army Troop Support Agency, Ft. Lee, VA, 27 March 1979.
99. _____ Overview and general production requirements for the retortable pouch. International Seminar on Retort Pouch, Organization of American States, Instituto de Tecnologia de Alimentos, Campinas, S.P. Brazil, 23-25 April 1979.
100. LAMPI, R., K. HU, and R. DECAREAU. The role of engineering in the mini-processing and preparation of food for serving. Second International Congress of Food and Engineering, Helsinki, Finland, 27-31 August 1979.
101. _____, K. HU, and R. DECAREAU. What's new in equipment. Catering Systems Design '79, Second International Symposium, Harrogate, England, 10-13 September 1979.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

102. RAHMAN, A., N. KELLEY, J. AYOUB, D. WESTCOTT, and H. HOLLENDER. New technology in the production of freeze-dried compressed foods. 5th International Congress, Food Science & Technology, Kyoto, Japan, 17-22 September 1978.
103. _____ New innovations in food research. Kuwait Institute for Scientific Research, Kuwait, 5 December 1978.
104. _____ Recent advances in food production and preservation. Federal Research Institute for Food and Nutrition, Karlsruhe, W. Germany, 12 December 1978.
105. _____ Recent advances in food preservation. House of Representatives, Boston, MA, 19 February 1979.
106. _____ New food sources. Center for Professional Advancement - Food Technology Update, E. Brunswick, NJ, 26 March 1979.
107. _____ Low moisture foods. Center for Professional Advancement - Food Technology Update, E. Brunswick, NJ, 27 March 1979.
108. _____ Latest development in compressed dried foods. 33rd Annual Meeting, Research and Development Associates for Military Food and Packaging Systems, Inc., New York, NY, 25 April 1979.
109. _____, D. GREAVES, and E. BURNS. Plasticization and storage effects on quality of freeze dried compressed carrot bars. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 11 June 1979.
110. _____ Recent innovations in food preservations. U.S. Navy Facility, Argentia, Newfoundland, 24 July 1979.
111. _____ Recent advances in the production of compressed foods. Campbell & Burns Ltd., Charlestown, Prince Edwards Island, Canada, 26 July 1979.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

112. RAHMAN, A. Intensive agriculture. U.S. Naval Facility, Norfolk, VA, 10 August 1979.
113. _____, N. KELLEY, J. AYOUB, and D. WESTCOTT. Compressed foods. 87th National Meeting, American Institute of Chemical Engineers, Boston, MA, 20 August 1979.
114. _____, N. KELLEY, J. AYOUB, and D. WESTCOTT. Modified techniques to reduce the weight and bulk of foods. Second International Congress on Engineering and Food, Helsinki, Finland, 28 August 1979.
115. _____ Update of development of intensive agriculture for the production of salad vegetables at the U.S. Naval facility at Argentia, Newfoundland. Research and Development Associates for Military Food and Packaging Systems Inc., US Army Natick Research and Development Command, Natick, MA, 12 September 1979.
116. _____ Recent techniques in food dehydration and compression. Food Preservation Research Association, Chipping Campden, England, 20 September 1979.
117. _____, and A. SALANT. Improved techniques for the production of compressed foods. Annual Meeting, Processing Engineers, W. Germany, 26 September 1979.
118. SALANT, A. S. The Department of Defense food research, development, testing and engineering program. 27th Annual USAREUR, 7th Army International Veterinary Medical Training Conference, Berchtesgaden, Germany, 16 October 1978.
119. _____, and A. R. RAHMAN. New approaches to food production, preservation and distribution. Northeast Agricultural Leadership Assembly, Chemphill, NJ, 21 March 1979.
120. _____, and A. R. RAHMAN. The role of technology in improving food nutrition and health. New England Conference on Food Nutrition and Health, Boston, MA, 1 May 1979.
121. _____, A. R. RAHMAN, and J. SECRIST. New innovations in foods. The Rural Economic Development Subcommittee, J. F. Kennedy Building, Boston, MA, 14 June 1979.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

122. SCHULZ, G. Update on the meal, ready-to-eat, individual. Armed Forces Pest Control Board, Washington, DC, 7 December 1978.
123. _____ Assurance of performance, quality and reliability in design and use of retortable pouches. International Seminar on Retort Pouch, Organization of American States, Instituto de Tecnologia de Alimentos, Campinas, S.P. Brazil, 23-25 April 1979.
124. SECRIST, J. Meat storage and handling. Department of Public Health, Harvard University, Cambridge, MA, 20 November 1978.
125. _____ Restructured meats. American Institute of Chemical Engineers, Boston, MA, 21 August 1979.
126. SHAW, C. A food technologist's approach to formulating special diets. Walter Reed Army Medical Center, Nutrition Symposium, The Uniformed Services University of Health Sciences, Washington, DC, 2 May 1979.
127. SHIEH, J., R. SELLERS, K. WHITBURN, M. HOFFMAN, and I. TAUB. Intermediates in free radical-induced redox reactions of aqueous myoglobin. American Chemical Society, Washington, DC, 10 September 1979.
128. SIMIC, M. Pulse radiolytic studies of fat autoxidation in food. U. S. Department of Agriculture, Northern Regional Research Center, Peoria, IL, 12 December 1978.
129. _____ Pulse radiolytic studies in ligand labilization of metal complexes. Radiation Laboratory, University of Notre Dame, Notre Dame, IN, 14 December 1978.
130. _____ $\dot{\text{L}}$ -tocopherol free radical, absorption spectrum, formation and decay kinetics. Annual Meeting, American Chemical Society, Honolulu, HI, 1-6 April 1979.
131. _____ Intramolecular electron transfer between coordinated ligand radicals and cobalt (III) centers. Annual Meeting, American Chemical Society, Honolulu, HI, 1-6 April 1979.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

132. SIMIC, M. Mechanism of reaction of hydroxy radicals with EDTA complexes. Annual Meeting, American Chemical Society, Honolulu, HI, 1-6 April 1979.
133. _____ Pulse radiolysis studies of antioxidants. Seminar, Hoffman La Roche, Nutley, NJ, 14 June 1979.
134. _____ Radiation chemistry relevant to biological and biochemical processes. Seminar, National Bureau of Standards, Center for Radiation Research, Notre Dame, IN, 14 June 1979.
135. _____ Intramolecular electron transfer in organometallic systems. Seminar, Case Western Reserve University, Cleveland, OH, 22 June 1979.
136. TAUB, I. Chemical safety and chemclearances of irradiated food. Research and Development Associates for Military Food and Packaging Systems, Inc., US Army Natick Research and Development Command, Natick, MA, 8 November 1978.
137. _____, R. KAPRIELIAN, J. W. WALKER, P. ANGELINI, J. E. WALKER, and C. MERRITT, JR. Factors affecting radiolytic effects in food. 2nd International Meeting on Radiation Processing, Miami, FL, 24 November 1978.
138. _____ Relevance of radiation chemical data for obtaining/extending clearances. Interdepartmental Committee on Radiation Preservation of Food, Washington, DC, 11 December 1978.
139. _____, and C. MERRITT. Influence of composition and processing parameters on product formation in irradiated foods. Conference on Radiation Chemistry, Working Session, Karlsruhe, W. Germany, 22-23 April 1979.
140. _____ Radiation chemical studies of aqueous solutions, proteins, and lipids at low temperatures. Seminar, National Bureau of Standards, Center for Radiation Research, Notre Dame, IN, 14 June 1979.
141. TAUB, I. Radiation chemistry of basic food components. Gordon Conference on Food & Nutrition, New London, N.H., 29 July 1979.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

142. TERRELL, R., G. SMITH, A. CARPENTER, F. HEILIGMAN, and E. WIERBICKI. Sensory properties of radiation preserved frankfurters. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 11-13 June 1979.
143. TUOMY, J. Application of food engineering laboratory expertise to hospital food service problems. Nutrition Symposium, The Uniformed Services University of Health Sciences, Washington, DC, 2 May 1979.
144. WANG, C., and A. BRYNJOLFSSON. Determination of specific heat of meat. Annual Winter Meeting, American Society of Mechanical Engineers, San Francisco, CA, 10-15 December 1978.
145. _____ Determination of the specific heat transfer in foods. Special Session on Heat Transfer in Foods, Annual Meeting, American Society of Mechanical Engineers, San Francisco, CA, 10-15 December 1978.
146. _____, and A. BRYNJOLFSSON. Heat transfer and the killing of bacteria in thermal sterilization of meat rolls. Annual Winter Meeting, American Society of Mechanical Engineers, San Francisco, CA, 10-15 December 1978.
147. _____, and A. BRYNJOLFSSON. Computer-aided solution of the bacterial survival equations in microbiology. 1979 Army's Numerical Analysis and Computers Conference, El Paso, TX, 14-16 February 1979.
148. WESTCOTT, D. Where is the half steam tray going in the Armed Forces? Research and Development Associates for Military Food and Packaging Systems, Inc., US Army Natick Research and Development Command, Natick, MA, 11 September 1979.
149. _____ What are the new directions for research & development. Flexible Packaging Association, Fall Executive Conference, New York, NY, 19 September 1979.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

150. WHITBURN, K., M. HOFFMAN, and M. SIMIC. Lifetimes of Cu(III)-peptide complexes. American Chemical Society, Washington, DC, 9-14 September 1979.
151. WIERBICKI, E. Irradiation of bacon. 15th Meat Industry Research Conference, Session "Update on Developments in Meat Curing", Chicago, IL, 20 March 1979.
152. _____ The importance and feasibility of irradiated low nitrite meat products. 33rd Annual Meeting, Research and Development Associates for Military Food and Packaging Systems, Inc., New York, NY, 24-25 April 1979.
153. _____, F. HEILIGMAN, and V. MASON. Irradiation as an alternative to nitrite in bacon. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 10-13 June 1979.
154. _____ Irradiation as an alternate to nitrite in cured meats. Swiss Veterinary Association for Meat Sanitation and Hygiene, Bern, Switzerland, 21 August 1979.
155. _____, and A. BRYNJOLFSSON. The use of irradiation to reduce or eliminate nitrite in cured meats. 25th European Meeting of Meat Research Workers, Budapest, Hungary, 27-31 August 1979.

Other Publications

156. WIERBICKI, E., and A. BRYNJOLFSSON. The use of irradiation to reduce or eliminate nitrite in cured meats. In Proc., 25th European Meeting of Meat Research Workers, Budapest, Hungary, 27-31 August 1979.

Patents

157. GORFIEN, H., A. R. RAHMAN, and D. E. WESTCOTT. Stabilized frozen potato salad. US Patent No. 4,148,929, 10 April 1979.

FOOD SCIENCES LABORATORY

Technical Reports

158. KLUTER, R. A., W. C. WILKINSON, and H. L. MEISELMAN. Food service system opinions, food preferences, and foil pack food ratings of Air Force Launch Control Facility consumers. NATICK/TR-79/035, August 1979.
159. SULLINS, W. J., JR., L. E. SYMINGTON, J. R. SIEBOLD, and J. G. ROGERS. Food preference, acceptance and consumption in a simulated, isolated duty station. University of Alabama, Contract No. DAAK03-74-C-0180. NATICK/TR-78/027, May 1977.
160. SYMINGTON, L. E., E. S. STEIN, H. L. MEISELMAN, and E. M. NUSS. Navy mess management specialist training: opinion survey and interviews. NATICK/TR-79/005, August 1977.
161. WENDT, T. M., P. F. HEIDER, JR., and A. M. KAPLAN. Fluidized bed biodenitrification process. NATICK/TR-78/035, August 1978.
162. WILEY, B. J., ed. Twenty-seventh conference on microbiological deterioration of military materiel, 14-16 November 1978. NATICK/TR-79/020, May 1979.*
163. _____, M. GREENBERGER, and A. M. KAPLAN. Evaluation of insect-resistant-treated food sacks for mold resistance. NATICK/TR-79/029, June 1979.
164. WILKINSON, W. C., L. E. SYMINGTON, M. F. BERMAN, and B. EDELMAN. Consumer and worker opinions of an a la carte food service system independent of any systematic changes in ration status: Barksdale AFB. NATICK/TR-79/006, March 1979.

Journal Articles

165. BOWMAN, L. H., III, O. J. SPROUL, M. R. ROGERS, and A. M. KAPLAN. Virucidal capacity of a chlorophenolic disinfectant. Dev. Ind. Microbiol., 20: 673-681 (1979).

FOOD SCIENCES LABORATORY

Journal Articles (continued)

166. CARDELLO A. Chemical stimulation of single human fungiform taste papillae: sensitivity profiles and locus of stimulation. *Sensory Processes*, 2(3): 173-190 (1978).
167. _____ Psychophysical exponents for single papillae: A comparison with whole mouth exponents. *Percept. Psychophys.*, 25(6): 510-516 (1979).
168. _____ Reaction time and visual brightness: within-subject correlations. *Percept. Mot. Skills*, 48(1): 107-115 (1979).
169. _____, D. HUNT, and B. MANN. Relative sweetness of fructose and sucrose in model solutions, lemon beverages and white cake. *J. Food Sci.*, 44(3): 748-751 (1979).
170. _____ Taste quality changes as a function of salt concentration in single human taste papillae. *Chem. Senses Flavour*, 4(1): 1-13 (1979).
171. COHEN, S. H., J. A. KOSTICK, F. M. ROBBINS, R. A. SEGARS, and J. E. WALKER. The action of spleen extracts on stored pre-cooked freeze-dried beef. *J. Food Sci.*, 44(4): 1118-1120 (1979).
172. DOUPLE, E. B., and R. C. RICHMOND. Platinum complexes as radio-sensitizers of hypoxic mammalian cells. *Br. J. Cancer (Suppl)*, 37(3): 98-102 (1978).
173. EL-ZAWAHRY, Y. A., and D. B. ROWLEY. Radiation resistance and injury of *Yersinia enterocolitica*. *Appl. Environ. Microbiol.*, 37(1): 50-54 (1979).
174. ELDRIDGE, A. C., and L. G. HOLMES. Evaluation of a fluorometric technique for quantitative determination of soy flour in meat-soy blends. *J. Food Sci.*, 44(3): 763-764 (1979).
175. GALLO, B. J., R. ANDREOTTI, C. ROCHE, D. RYU, and M. MANDELS. Cellulase production by a new mutant strain of Trichoderma reesei MCG 77. *Biotech. Bioeng. Symp.*, 8: 89-101 (1978).

FOOD SCIENCES LABORATORY

Journal Articles (continued)

176. JOSEPHSON, E. S. Nutritional aspects of food irradiation: an overview. *J. Food Process. Preserv.*, 2(4): 299-313 (1978).
177. KAPSALIS, J. G., and H. R. MOSKOWITZ. Views of relating instrumental tests to sensory assessment of food texture. Applications to product development and improvement. *J. Texture Studies*, 9: 371-393 (1978).
178. LAWLESS, H. T. Recognition of common odors, pictures and simple shapes. *Percept. Psychophys.*, 24(6): 493-495 (1978).
179. _____ Evidence for neural inhibition in bitter-sweet taste mixtures. *J. Comp. Physiol. Psychol.*, 93(3): 538-547 (1979).
180. MANDELS, M., S. DORVAL, and J. MEDEIROS. Saccharification of cellulose with *Trichoderma cellulase*. *Proc. Second Fuels from Biomass Symp.*, Troy, NY, 2: 627-629 (1978).
181. MARKARIAN, H., G. J. FLORENTINE, and J. J. PRATT, JR. Quinone production of some species of *Tribolium*. *J. Insect Physiol.*, 24: 785-790 (1978).
182. PEITERTSEN, N., and B. ANDERSEN. Fermentation of barley straw by *Trichoderma viride*. Recovery and nutritive value of the fermentation product. *AIChE Symposium Series*, 74(172): 100-104 (1978).
183. _____, and E. W. ROSS, JR. A mathematical model for enzymatic hydrolysis and fermentation of cellulose by *Trichoderma*. *Biotechnol. Bioeng.*, 21(6): 997-1017 (1979).
184. POWERS, E. M., T. G. LATT, D. R. JOHNSON, and D. B. ROWLEY. Occurrence of *Staphylococcus aureus* in and the moisture content of precooked canned bacon. *J. Food Protect.*, 41(9): 708-711 (1978).
185. _____, and T. G. LATT. Rapid enumeration and identification of stressed fecal coliforms. *J. Food Protect.*, 42(4): 342-345 (1979).
186. REMY, D. E., F. H. BISSETT, and J. BORNSTEIN. Benz(f)isoindole. *J. Org. Chem.*, 43(23): 4469-4472 (1978).

FOOD SCIENCES LABORATORY

Journal Articles (continued)

187. ROWLEY, D. B., J. J. PREVITE, and H. P. SRINIVASA. A radiometric method for rapid screening of cooked foods for microbial acceptability. *J. Food Sci.*, 43(6): 1720-1722 (1978).
188. _____, P. VANDEMARK, D. JOHNSON, and E. SHATTUCK. Resuscitation of stressed fecal coliforms and their subsequent detection by radiometric and impedance techniques. *J. Food Protect.*, 42(4): 335-341 (1979).
189. SALUNKHE, D. K., M. T. WU, J. Y. DO, and J. W. GIFFEE. Effects of long-term storage on quality of processed foods. 1. Meal, Ready-To-Eat Individual ration items packed in flexible retortable pouches. *J. Food Quality*, 2(2): 75-103 (1978).
190. SPANO, L., A. ALLEN, T. TASSINARI, M. MANDELS, and D. RYU. Reassessment of economics of cellulase process technology for production of ethanol from cellulose. *Proc. Second Fuels from Biomass Symp.*, Troy, NY, 2: 671-684 (1978).
191. SPIRA, W. M., and G. J. SILVERMAN. Effects of glucose, pH, and dissolved-oxygen tension on Bacillus cereus growth and permeability factor production in batch culture. *Appl. Environ. Microbiol.*, 37(1): 109-116 (1979).
192. STERNBERG, D., and S. DORVAL. Cellulase production and ammonia metabolism in Trichoderma reesei on high levels of cellulose. *Biotech. Bioeng.*, 21(2): 181-191 (1979).
193. TEGHTSOONIAN, R., and M. TEGHTSOONIAN. Range and regression effects in magnitude scaling. *Percept. Psychophys.*, 24(4): 305-314 (1978).
194. VAJDI, M., W. W. NAWAR, and C. MERRITT, JR. Comparison of radiolytic compounds from saturated and unsaturated triglycerides and fatty acids. *J. Amer. Oil Chem. Soc.*, 55(12): 849-850 (1978).
195. VIJAYAKUMAR, P., W. ROSS, and E. T. REESE. (α -trehalase of Trichoderma reesei. *Canad. J. Microbiol.*, 24(10): 1280-1283 (1978).

FOOD SCIENCES LABORATORY

Journal Articles (continued)

196. WENDT, T. M., J. H. CORNELL, and A. M. KAPLAN. Microbial degradation of glycerol nitrates. Appl. Environ. Microbiol., 36(5): 693-699 (1978).

Technical Papers

197. ALLEN, A. Pilot scale investigations of the enzymatic hydrolysis of cellulose to glucose. Annual Meeting, American Institute of Chemical Engineers, Boston, MA, 20 August 1979.
198. BISSETT, F. The bioconversion of waste cellulose to fermentable sugars. Annual Meeting, American Chemical Society, Washington, DC, 10 September 1979.
199. JACOBS, H. L. Behavioral science analysis of food service systems: a starting point in a societal attack on overnutrition. Symposium on Psychosocial Factors in Nutritional Problems, 11th International Congress of Nutrition, Rio de Janeiro, Brazil, September 1978.
200. _____ The military establishment. Workshop on methodology for collection of aggregated food consumption data. National Academy of Sciences Food and Nutrition Board, and Food and Drug Administration, Washington, DC, October 1978.
201. KAPLAN, A. M. Discussion of presentations on microbial metabolism of lignocellulose and enzymatic conversion and utilization of cellulosic biomass. Gordon Research Conference on Microbial Degradation, Wolfboro, NH, 25 July 1979.
202. _____ Summary of the conference. Gordon Research Conference on Microbiological Degradation, Wolfboro, NH, 27 July 1979.
203. KING, F., J. KAPSALIS, A. CARDELLO, and J. BROOKER. Consumer and instrumental edibility measures for grouping of fish species. International Conference on Fish Science and Technology, Aberdeen, Scotland, 23-27 July 1979.

FOOD SCIENCES LABORATORY

Technical Papers (continued)

204. LEVINSON, H. S. Activation of bacterial spores - experiments with Clostridium perfringens. Interagency Botulism Research Coordination Committee, US Department of Agriculture, Beltsville, MD, October 1978.
205. _____ Activation of bacterial spores. Biology Department, Northeastern University, Boston, MA, 28 November 1978.
206. _____, and F. E. FEEHERRY. Rate and lag of KNO₃-induced germination of Clostridium perfringens spores. American Society for Microbiology, Los Angeles, CA, 4-8 May 1979.
207. MABROUK, A. F. Flavor of browning reaction products. 177th Meeting, American Chemical Society, Pacific Chemical Congress, Honolulu, HI, 1-6 April 1979.
208. MANDELS, M. Saccharification of cellulose with Trichoderma cellulase. Cornell University, Ithaca, NY, 19 October 1978.
209. _____ Production and applications of fungal cellulases. Yale University, New Haven, CT, 26 February 1979.
210. _____ Enzymatic hydrolysis of waste cellulose. Third Annual Biomass Energy Systems Conference, Solar Energy Research Institute, Golden, CO, 6 June 1979.
211. MEISELMAN, H. L. Recent psychophysical research in taste. Tokyo Metropolitan Institute for Neurosciences, Tokyo, Japan, 22 March 1978.
212. _____ Modern psychophysical scaling methods: impact on the measurement of sweetness. Gordon Research Conference, Andover, NH, 11 July 1978.
213. _____ Measuring consumer opinion and behavior. American Veterinary Medical Association, Dallas, TX, 19 July 1978.
214. _____ Research methods in taste. Ecole Pratique des Hautes Etudes, Fontenay aux Roses, France, 14 November 1978.

FOOD SCIENCES LABORATORY

Technical Papers (continued)

215. MERRITT, C., JR. The separation of trace constituents in lipids by exclusion chromatography. International Symposium on Advances in Chromatography, St. Louis, MO, October 1978.
216. MOSKOWITZ, H. R., and J. G. KAPSALIS. Interrelating texture measures, expert panel perceptions, consumer perceptions and acceptability. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 10-13 June 1979.
217. MURPHY, C., and W. S. CAIN. A model for predicting the perceived intensity of an olfactory-taste mixture. Gordon Conference on the Chemical Senses, Andover, NH, 10 July 1978.
218. _____ Age-related changes in the sense of taste. Nutrition and Aging Conference, University of Massachusetts Medical School, Worcester, MA, 20 September 1978.
219. NARAYAN, K. A., and J. J. MCMULLEN. Comparative effects of glucose, sucrose and three levels of glycerol on serum and liver lipids of rats maintained on fat-free diets. Federation of American Societies for Experimental Biology, Dallas, TX, 1-5 April 1979.
220. _____ The nutritional effects of glycerol. Federation of American Societies for Experimental Biology, Dallas, TX, 4 April 1979.
221. PORTER, W. Recent trends in food antioxidants. Institute of Food Technologists, Basic Symposium on Food Lipids, St. Louis, MO, 8-13 June 1979.
222. REESE, E. T. Enzymatic conversion of cellulose to glucose. US/USSR Joint Working Group on the Production of Substances by Microbiological Means, New Orleans, LA, 31 October 1978.
223. _____ Production of microbial enzymes in cellulose hydrolysis. Symposium of the Portuguese Society of Biochemistry, Oeiras, Portugal, 29 June 1979.
224. ROWLEY, D. B. Microbiological considerations in the sterilization of foods by ionizing radiation. Joint Meeting, US - Japan Panel on Toxic Microorganisms, New Orleans, LA, 4-6 December 1978.

FOOD SCIENCES LABORATORY

Technical Papers (continued)

225. ROWLEY, D. B. The utilization of radiation in the processing of foods. Association of Food and Drug Officials, Washington, DC, 20 June 1979.
226. RYU, D. Cellulase synthesis and cellulose. 10th Conference, Foundation for Research Conferences in Chemistry, Ohtsu, Japan, 4 July 1978.
227. _____ Studies on quantitative physiology of Trichoderma reesei with two stage continuous culture for cellulase production. 176th National Meeting, American Chemical Society, Miami, FL, 12 September 1978.
228. _____ Cellulase biosynthesis and related problems. Purdue University, Laboratory of Renewable Resources Engineering, Lafayette, IN, 7 November 1978.
229. SILVERMAN, G. The impact of microbiology on military feeding systems. University of Rhode Island, Kingston, RI, 28 February 1979.
230. _____ Application of ELISA for the detection of staphylococcal enterotoxins in food. American Society for Microbiology, Los Angeles, CA, 6 May 1979.
231. _____ Staphylococcal enterotoxins: their significance and detection in foods. School of Public Health, Howard University, Washington, DC, 11 April 1979.
232. STUTZ, H. K., G. J. SILVERMAN, and R. E. LEVIN. Effect of reduced oxygen has on the spoilage of ground beef held at refrigerated temperatures. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 10 June 1979.
233. VANDEMARK, P. J., E. SHATTUCK, and D. B. ROWLEY. Rapid detection of fecal coliforms in clams by electrical impedance. 39th Annual Meeting, Institute of Food Technologists, St. Louis, MO, 10-13 June 1979.

Other Publications

234. BUFFINGTON, C., and H. L. MEISELMAN. Does filter paper application produce complete gustatory adaptation? In Proc., Eastern Psychological Association, p. 87 (1978).

FOOD SCIENCES LABORATORY

Other Publications (continued)

235. GRAEBER, R. C. Behavioral studies correlated with central nervous integration of vision in sharks. In Sensory Biology of Sharks, Skates and Rays. E. S. Hodgson, and R. W. Mathewson (eds.). Government Printing Ofc, 1978, pp. 195-225.
236. KAPLAN, A. M. Predictions from laboratory studies of biodegradation of pollutants in "natural environments". In Proceedings of Workshop-Microbial Degradation of Pollutants in Marine Environments. A. W. Bourquin and P. H. Pritchard, (eds.). 1979, EPA 600/9-79-012, pp. 479-484.
237. MAXCY, R. B., and D. B. ROWLEY. Radiation resistant vegetative bacteria in a proposed system of radappertization of meats. In Proc., Food Preservation by Irradiation, Vol. 1, International Atomic Energy Agency, Vienna, Austria, 1978, pp. 347-359.
238. MEISELMAN, H. L. A new model for taste psychophysics: the role of taste adaptation. In Olfaction and Taste VI, J. LeMagnen, and P. Macleod (eds.). Information Retrieval LTD., London, 1978.
239. MERRITT, C., JR. Book review - Radiation Chemistry of Major Food Components, by P. S. Elias and A. J. Cohen. Food Technol., 32(12): 98-100 (1978).
240. _____, P. ANGELINI, and W. W. NAWAR. Chemical analysis of radiolysis products relating to the wholesomeness of irradiated food. Food Preservation by Irradiation, Vol. II. International Atomic Energy Agency, Vienna, 1978, pp. 97-112.
241. MOSKOWITZ, H. R., and J. KAPSALIS. Towards a general theory of texture psychophysics. In Proc., 4th International Congress of Food Sci and Tech, pp. 102-120 (1974).
242. MURPHY, C. Book review: Taste & development: the genesis of sweet preference, by J. M. Weiffenbach, ed. In Chemical Senses and Flavour, 3(4): 451-453 (1978).

FOOD SCIENCES LABORATORY

Other Publications (continued)

243. REESE, E. T. Production of microbial enzymes for cellulose hydrolysis. In Proc., Third Joint US/USSR Joint Working Group in the Production of Substances by Microbiological Means, National Science Foundation, pp. 410-440 (1978).
244. SHARMA, J. N., H. L. JACOBS, V. GOPAL, and S. DUA-SHARMA. Nutritional state/taste interactions in food intake: behavioral and physiological evidence for gastric/taste modulation. In Chemical Senses and Nutrition. M. R. Kare, and O. Maller (eds.). Academic Press, New York, 1977, pp. 167-188.
245. SYMINGTON, L. E., W. C. WILKINSON, and H. L. MEISELMAN. Food service worker, commander, and customer opinion of central food preparation. In Evaluation Report: Central Food Preparation System, Directorate of Concepts and Systems, US Army Troop Support Agency, Fort Lee, VA, December 1978, pp. E-1 - E-56.

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