

Food Structure

Volume 10 | Number 1

Article 5

1991

Structure and Rheology of Dairy Products: A Compilation of References with Subject and Author Indexes

David N. Holcomb

Follow this and additional works at: <https://digitalcommons.usu.edu/foodmicrostructure>



Part of the Food Science Commons

Recommended Citation

Holcomb, David N. (1991) "Structure and Rheology of Dairy Products: A Compilation of References with Subject and Author Indexes," *Food Structure*: Vol. 10 : No. 1 , Article 5.

Available at: <https://digitalcommons.usu.edu/foodmicrostructure/vol10/iss1/5>

This Article is brought to you for free and open access by
the Western Dairy Center at DigitalCommons@USU. It
has been accepted for inclusion in Food Structure by an
authorized administrator of DigitalCommons@USU. For
more information, please contact
digitalcommons@usu.edu.



STRUCTURE AND RHEOLOGY OF DAIRY PRODUCTS: A COMPILATION OF REFERENCES WITH SUBJECT AND AUTHOR INDEXES

David N. Holcomb,
Kraft General Foods Technology Center, 801 Waukegan Road,
Glenview, Illinois 60025

Abbreviations Used

DSC	Differential scanning calorimetry
DTA	Differential thermal analysis
EM	Electron microscopy
EPR	Electron paramagnetic resonance
ESR	Electron spin resonance
LFRA	Leatherhead Food Research Association
LM	Light microscopy
NMR	Nuclear magnetic resonance
NIRD	National Institute for Research in Dairying
SEM	Scanning electron microscopy
SFC	Solid fat content
TEM	Transmission electron microscopy
TPA	Texture profile analysis
TVP	Texturized vegetable protein

Introduction

In discussing the importance of food texture 20 years ago, Szczesniak and Kahn (1971) wrote, "When first asked about food texture, the consumer appears to exhibit very little spontaneous awareness. Flavor overshadows texture at the conscious level. People simply take the texture of a food for granted. An average consumer may have difficulty in visualizing the concept of texture per se. ...If the texture of a food is the way people have learned to expect it to be, and if it is psychologically and physiologically acceptable, then it will scarcely be noticed. If, however, the texture is not as it is expected to be ...it becomes a focal point for criticism and rejection of the food. Care must be taken not to underestimate the importance of texture just because it is taken for granted when all is as it should be." Body and texture are surely no less important in dairy products than they are in other foods. It has long been recognized that the body and texture, or rheology, of dairy products must be determined by the structure of those products. Many of the papers cited in this bibliography attempt to correlate the rheology of a product with its structure or microstructure. Other papers deal with rheology only or structure only, and the reader is left to correlate those properties if it is possible to do so. Perhaps this collection of references will aid in finding such correlations.

No doubt the author has referenced those papers which seem most relevant to him. Another author may have included other papers and may not have included some of those found in this bibliography. Also, the author may have overlooked some references which he would have included had he been aware of them. Many important papers in this area have been published in non-English journals, and they may not have gotten equal treatment because of the author's limited linguistic skills. The author apologizes for any such omissions or unfair treatment. We will probably publish supplement to this bibliography in 2 or 3 years. In the meantime, readers are solicited to send to the author references (complete papers, if possible) which should

Initial paper received November 1, 1990

Manuscript received March 1, 1991

Direct inquiries to D.N. Holcomb

Telephone number: 708 998 3724

Telefax number: 708 998 3864

Keyword: Rheology, milk, cheese, yoghurt, fat, emulsion, scanning electron microscopy, transmission electron microscopy, light microscopy, casein, viscosity, ice cream, gel, butter, micelle, protein, texture, whey.

be cited in that supplement.

The references are listed alphabetically by the first authors' last names. For each paper, the authors' names and year of publication are followed by the paper title; then by the journal or book citation. Finally, the "key words" which were used in making the subject index are listed. The title and list of key words will help the reader determine the content of a paper. The list of references is followed by the author and subject indices. In the subject index, key words are listed alphabetically along with the numbers of the references which include those key words. The reader should not assume that all appropriate key words from all papers have been included here; we have tried to be comprehensive, but have probably made some omissions.

1. Abd El-Salam MH. (1987). Domiati and Feta type cheeses. Chapter 9 in: *Cheese: Chemistry, Physics and Microbiology*, Vol. 2. Major Cheese Groups. PF Fox (ed.), Elsevier London. 277-309. Keywords: cheese, Domiati cheese, fatty acid, Feta cheese, HPLC, milk, moisture content, pH, protein, proteolysis, TEM, ultrafiltration, whey.
2. Abd El-Salam MH, El-Shibiny S. (1973). An electron microscope study of the structure of Domiati cheese. *J. Dairy Res.* 40: 113-115. Keywords: body, casein, cheese, cross linking, Domiati cheese, curd, fat, osmium tetroxide, protein, TEM, whey.
3. Abd El-Salam MH, Omar MM. (1985). Microstructure of Kariesh Cheese. *J. Dairy Res.* 52: 299-301. Keywords: cheese, coagulation, curd, Kariesh cheese, pickle, protein, skim milk, soft cheese, syneresis, TEM.
4. Abrahamson K, Frennborn P, Dejmek P, Buchheim W. (1988). Effects of homogenization and heating conditions on physico-chemical properties of coffee cream. *Milchwissenschaft* 43: 762-765. Keywords: coffee cream, cream, fat, globule, pH, protein, stability, stabilizer, viscosity.
5. Adda J, Gripon JC, Vassal L. (1982). The chemistry of flavor and texture generation in cheese. *Food Chemistry* 9: 115-129. Keywords: body, calcium, Camembert cheese, Cheddar cheese, cheese, elasticity, Emmental cheese, fat, firmness, iodine value, milk, pH, protein, rheology, salt, SEM, smoothness, soft cheese, Swiss cheese, TEM, texture.
6. Aguilera JM, Kessler HG. (1988). Physico-chemical and rheological properties of milk fat globules with modified membranes. *Milchwissenschaft* 43: 411-415. Keywords: casein, compression, cream, deformation, fat, firmness, freeze fracture, gel, globule, glutaraldehyde, interface, LFRA texture analyzer, LM, membrane, micelle, milk, osmium tetroxide, rheology, stability, TEM, whey.
7. Aguilera JM, Kessler HG. (1989). Properties of mixed and filled-type dairy gels. *J. Food Sci.* 54: 1213-1217, 1221. Keywords: casein, compression, Coulter counter, deformation, firmness, gel, globule, glucono delta lactone, glutaraldehyde, LFRA texture analyzer, milk, milk powder, osmium tetroxide, pH, protein, SEM, skim milk, syneresis, TEM, whey, yoghurt.
8. Aguilera JM, Stanley DW. (1990). *Microstructural Principles of Food Processing & Engineering*. Elsevier, London. Book of 343 pages, including 8 chapters. Keywords: butter, casein, centrifugation, cheese, colloid, creep, crystal, emulsion, fat, gel, globule, ice cream, lactose, LM, membrane, milk, rheology, SEM, stability, starch, TEM, texture, whipped cream.
9. Ashima T, Yada RY, Smith AM, Nakai S. (1987). Multivariate analysis of structure-related data to explain milk clotting activity of proteolytic enzymes. *J. Food Biochem.* 11: 121-132. Keywords: chymosin, clotting, enzyme, milk, pH, proteolysis, trypsin.
10. Al-Fayadah MH. (1980). Study of the flavor and consistency problem in Cheddar cheese made from buffalo milk. Ph.D. Thesis, University of Illinois, Urbana. University Microfilms Internat., Ann Arbor, MI. Keywords: buffalo milk, casein, Cheddar cheese, cheese, curd, firmness, milk.
11. Ali MZ, Robinson RK. (1985). Size distribution of casein micelles in camel's milk. *J. Dairy Res.* 52: 303-307. Keywords: camel milk, casein, chromatography, image analysis, micelles, milk, TEM.
12. Ali MZ, Robinson RK. (1990). Aspects of the structure of a Feta-style cheese made by direct recombination. *Milchwissenschaft* 45: 699-701. Keywords: casein, cheese, cream, enzyme, fat, Feta cheese, Gibna Baida cheese, globule, glutaraldehyde, micelle, milk, milk powder, osmium tetroxide, protein, rennet, SEM, skim milk, TEM, texture, whey.
13. Allan-Wojtas P. (1984). Transportation of fragile food specimens such as milk gels destined for electron microscopy. *Food Microstruc.* 3: 93. Keywords: agar, EM, gel, milk, transportation.
14. Allan-Wojtas P, Kalab M. (1984a). Milk gel structure. XIV. Fixation of fat globules in whole milk yoghurt for electron microscopy. *Milchwissenschaft* 39: 323-327. Keywords: EM, fat, globule, fatty acid, glutaraldehyde, gel, linoleic acid, lipid, milk, oleic acid, osmium tetroxide, triglyceride, yoghurt.
15. Allan-Wojtas P, Kalab M. (1984b). A simple procedure for the preparation of stirred yoghurt for scanning electron microscopy. *Food Microstruc.* 3: 197-198. Keywords: agar, encapsulation, freeze fracture, gel, SEM, yoghurt.
16. Amantea GF, Skura BJ, Nakai S. (1986). Culture effect on ripening characteristics and rheological

- behavior of Cheddar cheese. *J. Food Sci.* 51: 912-918. Keywords: casein, Cheddar cheese, cheese, compression, fat, firmness, HPLC, Instron, milk, moisture content, pasteurization, pH, proteolysis, rheology, ripening, texture, whey.
17. Anderson M, Brooker BE, Andrews AT, Alichanidis E. (1975). Membrane material in bovine skim milk from udder quarters infused with endotoxin and pathogenic organisms. *J. Dairy Res.* 42: 401-417. Keywords: casein, cell centrifuge, cream, enzyme, globule, lipid, membrane, milk, skim milk, TEM.
 18. Anderson M, Brooker BE, Cawston TE, Cheeseman GC. (1977). Changes during storage in stability and composition of ultra-heat-treated aseptically packed cream of 18% fat content. *J. Dairy Res.* 44: 111-124. Keywords: agar, casein, centrifugation, citrate, coffee cream, electrophoresis, foam, globule, glutaraldehyde, interface, lactoglobulin, lipid, membrane, micelle, osmium tetroxide, protein, stability, TEM, whey.
 19. Anderson M, Brooker BE, Needs EC. (1977). The role of proteins in the stabilization/destabilization of dairy foams. In: *Food Emulsions and Foams*. E. Dickinson (ed.), Royal Soc. Chem., London, UK. 100-109. Keywords: casein, cream, fat, foam, globule, glutaraldehyde, interface, micelle, protein, SEM, stability, TEM.
 20. Anderson M, Griffin MA, Moore C. (1984). Fixation of bovine casein micelles for chromatography on controlled pore glass. *J. Dairy Res.* 51: 615-622. Keywords: casein, chromatography, glutaraldehyde, micelle, milk, skim milk.
 21. Andren A, von Reedtz C. (1990). Effects of chromatographically pure bovine chymosin and pepsin A on cheese curd firmness. *J. Dairy Res.* 57: 109-117. Keywords: cheese, chromatography, chymosin, clotting, curd, enzyme, firmness, Formagraph, milk, pH.
 22. Andrews AT, Brooker BE, Hobbs DG. (1977). Properties of aseptically packed ultra-heat-treated milk. Electron microscopic examination of changes occurring during storage. *J. Dairy Res.* 44: 283-292. Keywords: agar, casein, cream, chymosin, electrophoresis, fat, gel, globule, glutaraldehyde, Maillard reaction, micelle, milk, pH, protein, stability, starch, TEM.
 23. Arbuckle WS. (1960). The microscopical examination of the texture and structure of ice cream. *The Ice Cream Trade J.* 58: 62-68, 168-172. Keywords: butter, cell, cream, crystal, fat, globule, ice cream, interface, lactose, LM, milk, smoothness, texture.
 24. Arbuckle WS. (1986). *Ice Cream*, 4th ed. (AVI) Van Nostrand Reinhold, New York. Book of 482 pages emphasizing ice cream technology. 22 chapters and 7 appendices. Keywords: fat, ice cream, melting, protein, stability, viscosity.
 25. Armishaw RF. (1982). Inorganic fouling of membranes during ultrafiltration of casein whey. *N. Z. J. Dairy Sci. Technol.* 17: 213-218. Keywords: casein, membrane, ultrafiltration, whey, X-ray microanalysis.
 26. Atkin G, Sherman P. (1980). Further applications of the modified gel rigidity modulus apparatus. *J. Text. Studies* 10: 253-259. Keywords: creep, fruit, gel, milk, mayonnaise, modulus, rheology, rigidity, viscoelasticity, viscosity, yoghurt.
 27. Awadhwal NK, Singh CP. (1985). A rheological model for milk products. *J. Food Sci.* 50: 1611-1614. Keywords: butter, deformation, elasticity, Instron, milk, paneer, rheology.
 28. Bagley EB. (1983). Large deformation in testing and processing of food materials. Chapter 11 in: *Physical Properties of Foods*. M Peleg and EB Bagley (eds.), AVI Pub. Co., Westport, CT. pp 325-342. Keywords: deformation, dynamic testing, modulus, rheology, viscoelasticity, viscosity.
 29. Bagley EB, Christianson DD. (1988). Uniaxial compression of viscoelastic rings - effect of friction at the platen/sample interface for gels and doughs. *J. Rheol.* 32: 555-573. Keywords: compression, deformation, dough, friction, gel, gelatin, Instron, lubricated squeezing flow, rheology, starch, uniaxial compression, viscoelasticity, wheat.
 30. Ballmann H. (1986). Sources of variation in the viscosity of fresh raw milk and its use to indicate oestrus. Thesis, Christian-Albrechts-Universität Kiel, GFR (in German) Keywords: milk, oestrus, protein, rheology, viscosity.
 31. Ballmann H, Ordloff D. (1986). Causes of variation in viscosity of fresh raw milk. *Milchwissenschaft* 41: 27-29 (in German). Keywords: fat, lactose, milk, protein, viscometer, viscosity.
 32. Barabas J. (1980). Changes of the chemical composition and physical properties of sheep's milk grazing on pastures heavily fertilized by nitrogen. *Milchwissenschaft* 35: 477-478. Keywords: casein, coagulation, curd, fat, fatty acid, milk, protein, sheep milk, whey.
 33. Barnes HA, Hutton JF, Walters K. (1989). *An Introduction to Rheology*. Elsevier, Amsterdam. A book of 199 pages with 8 chapters, a glossary, references and indices. Keywords: Bingham model, creep, dynamic testing, elasticity, emulsion, gel, ice cream, margarine, modulus, rheology, pseudoplasticity, thixotropy, viscoelasticity, viscometer, viscosity, yoghurt.
 34. Baron VM, Scott Blair GW. (1953). Rheology of cheese and curd. In: *Foodstuffs: Their Plasticity, Fluidity and Consistency*. GW Scott Blair (ed.), North-Holland Pub. Co., Amsterdam. 124-147. Keywords: Bloom gelometer, Cheddar cheese, cheese,

Cheshire cheese, coagulation, consistency, curd, milk, modulus, moisture content, rennet, rheology.

35. Bartsch A, Buning-Pfaue H. (1990). Investigations on the compatibility of fats using polarized light thermomicroscopy. *Thermochimica Acta* 160: 125-130. Keywords: crystal, DSC, fat, LM, melting, milk, triglyceride, X-ray diffraction.

36. Bechtel DB. (ed., 1983). *New Frontiers in Food Microstructure*. Am. Assoc. Cereal Chem., St. Paul, MN. A book of 392 pages and 12 chapters, largely dealing with application of microscopic techniques to study cereal structure. Keywords: cereal, image analysis, LM, SEM, TEM.

37. Becker T, Puhan Z. (1989). Effect of different processes to increase the milk solids non-fat content on the rheological properties of yoghurt. *Milchwissenschaft* 44: 626-629. Keywords: calcium, firmness, milk, protein, rheology, skim milk, ultrafiltration, viscosity, yoghurt.

38. Berendsen PB. (1982). Ultrastructural studies of milk digestion in the suckling rat. *Food Microstruc.* 1: 83-90. Keywords: casein, curd, digestion, duodenum, fat, globule, granule, lipolysis, membrane, milk, rat, SEM, TEM.

39. Berger KG. (1990). Ice cream. In: *Food Emulsions*, 2nd ed. K. Larsson and S. Friberg (eds.), Marcel Dekker, New York. 367-444. Keywords: casein, creep, crystal, DTA, emulsifier, emulsion, fat, freeze fracture, globule, ice cream, LM, micelle, milk, protein, rheology, skim milk, TEM, texture, triglyceride, viscoelasticity, viscosity.

40. Berger KG, Bullimore BK, White GW, Wright WB. (1972a). The structure of ice cream - Part 1. *Dairy Ind.* 37: 493-497. Keywords: casein, cell, cream, crystal, emulsion, extrusion, fat, firmness, globule, ice cream, interface, LM, melting, membrane, micelle, milk, pH, protein, salt, stability, TEM, whippable emulsion.

41. Berger KG, Bullimore BK, White GW, Wright WB. (1972b). The structure of ice cream - Part 2. *Dairy Industries* 37: 493-497. Keywords: body, crystal, denaturation, emulsion, fat, globule, grittiness, hardness, ice cream, interface, melting, membrane, milk, pH, protein, rheology, sandiness, smoothness, stability, TEM, texture, triglyceride, viscosity, water, whippable emulsion.

42. Berger KG, White GW. (1979). Ice cream. In: *Food Microscopy*. JG Vaughan (ed.). Academic Press, New York. 499-530. Keywords: casein, crystal, emulsifier, fat, globule, ice cream, lactose, micelle, milk, SEM, stability, sugar, TEM.

43. Berlin E, Anderson BA, Pallansch MJ. (1968). Comparison of water vapor sorption by milk powder components. *J. Dairy Sci.* 51: 1912-1915.

Keywords: casein, crystal, lactose, milk, milk powder, protein, salt, skim milk, sugar, water activity, whey.

44. Beveridge T, Jones L, Tung MA. (1983). Stranded structure development in thermally produced whey protein concentrate gel. *Food Microstruc.* 2: 161-163. Keywords: bubble, gas, gel, glutaraldehyde, osmium tetroxide, SEM, whey.

45. Bhandari V, Balachandran R, Prasad DN. (1984). Influence of stabilizers and an emulsifier on the ultrastructure of spray dried ice cream mix. *N. Z. J. Dairy Sci. Technol.* 19: 55-61. Keywords: alginate, emulsifier, ice cream, stabilizer, starch, Tween.

46. Bishop JR, Bodine AB, Janzen JJ. (1983). Electron microscopic comparison of curd microstructures of Cottage cheese coagulated with and without microbial rennet. *Cultured Dairy Products J.* 18: 14-16. Keywords: casein, cheese, coagulation, Cottage cheese, curd, EM, enzyme, micelle, milk, rennet, TEM.

47. Bistany KL, Kokini JL. (1983). Comparison of steady shear rheological properties and small amplitude dynamic viscoelastic properties of fluid food materials. *J. Text. Studies* 14: 113-124. Keywords: apple butter, dynamic testing, margarine, mayonnaise, modulus, mustard, power law model, rheology, Rheometrics, tub margarine, viscoelasticity, viscosity.

48. Blake JA, Moran JJ. (1975). A new approach to capillary extrusion rheometry. *J. Texture Studies* 6: Keywords: capillary extrusion, extrusion, honey, Instron, mayonnaise, peanut butter, power law model, rheology, shortening, vegetable oil, viscosity.

49. Blanc B, Fluckiger E, Ruegg M, Steiger G. (1980). Changes in biochemical, physical, technological and sensory properties of UHT milk during storage. *Alimenta Sonderausgabe* 1980: 27-47 (in German). Keywords: agar, casein, clotting, fatty acid, gel, micelle, milk, osmium tetroxide, pH, rennet, ripening, TEM, viscometer, viscosity.

50. Blanc B, Ruegg M, Baer A, Casey M, Lukesch A. (1979). Comparative tests in Emmental cheese with and without late fermentation. IV. Biochemical and physico-chemical comparison. *Schweiz. Milchw. Forschung* 8: 27-36 (in German) Keywords: amino acid, casein, cheese, chromatography, crystal, electrophoresis, Emmental cheese, osmium tetroxide, proteolysis, SEM, water activity, X-ray microanalysis.

51. Blanc B, Ruegg M, Baer A, Casey M, Lukesch A. (1980). Comparative test in Gruyere cheeses with and without secondary fermentation. II. Biochemical and physico-chemical aspects. *Schweiz. Milchw. Forschung* 9: 31-34 (in German) Keywords: casein, cheese, chromatography, crystal, electrophoresis, enzyme, Gruyere cheese, proteolysis, SEM, tyrosine.

52. Blanshard JMV, Lillford P. (eds., 1987). *Food Structure and Behavior*. Academic Press, New

- York. A book of 291 pages and 13 chapters. Keywords: crystal, emulsion, fat, rheology.
53. Board PW, Aicken K, Kuskis A. (1980). Measurement of the spreadability of margarine and butter using a single pin maturometer. *J. Food Technol.* 15: 277-283. Keywords: butter, cream, deformation, margarine, maturometer, spreadability.
54. Bohac V. (1986). Microscopic methods in cheese production. *Mljekarstvo* 36: 114-120 (in Czech) Keywords: cheese, crystal, Gouda cheese, LM, melting, SEM.
55. Bottazzi V, Battistotti B, Bianchi F. (1982). The microcrystalline inclusions in Grana cheese and their X-ray microanalysis. *Milchwissenschaft* 37: 577-580. Keywords: calcium lactate, calcium phosphate, cheese, crystal, Grana cheese, SEM, X-ray microanalysis.
56. Bottazzi V, Battistotti B, Bianchi F. (1983). Microcolonies formation of thermophilic lactic acid bacteria in Grana cheese. *Microbiol. Alim. Nutr.* 1: 285-291. Keywords: cheese, Grana cheese, lactic acid bacteria, SEM.
57. Bourne MC. (1967a). Deformation testing of foods. 1. A precise technique for performing the deformation test. *J. Food Sci.* 32: 601-605. Keywords: deformation, Instron, rheology, texture.
58. Bourne MC. (1967b). Deformation testing of foods. 2. A simple spring model of deformation. *J. Food Sci.* 32: 605-607. Keywords: apple, deformation, egg, Instron, lettuce, marshmallow.
59. Bourne MC. (1982). *Food Texture and Viscosity: Concept and measurement*. Academic Press, New York. Book of 325 pages. Keywords: rheology, texture, TPA, viscosity.
60. Bourne MC, Comstock SH. (1981). Effect of degree of compression on texture profile parameters. *J. Texture Studies* 12: 201-216. Keywords: adhesiveness, cheese, chewiness, cohesiveness, compression, Cream cheese, fracturability, gumminess, hardness, Instron, texture, TPA.
61. Boyd JV, Sherman P. (1975). A study of force compression conditions associated with hardness evaluation in several foods. *J. Text. Studies* 6: 507-522. Keywords: Cheddar cheese, cheese, compression, Cottage cheese, Cream cheese, hardness, Instron, milk chocolate, texture.
62. Brandt MA, Skinner EZ, Coleman JA. (1963). Texture profile method. *J. Food Sci.* 28: 404-409. Keywords: cheese, Cottage cheese, texture, TPA.
63. Bray F, Buchheim W. (1987). Microstructure of homemade ice cream. *Industrie Alimentari*, 26: 1129-1136 (in Italian). Keywords: casein, crystal, fat, freeze fracture, globule, ice cream, TEM.
64. Breene WM. (1975). Application of texture profile analysis to instrumental food texture evaluation. *J. Text. Studies* 6: 53-82. Keywords: extrusion, General Foods Texturometer, Instron, texture, TPA.
65. Brennan JG, Jowitt R, Mughs OA. (1970). Some experiences with the General Foods texturometer. *J. Text. Studies* 1: 167-184. Keywords: Cheddar cheese, cheese, Edam cheese, General Foods Texturometer, Instron, Kramer cell, texture, TPA.
66. Bringe NA, Kinsella JE. (1990). Acidic coagulation of casein micelles: mechanisms inferred from spectrophotometric studies. *J. Dairy Res.* 57: 365-375. Keywords: casein, coagulation, micelle, milk, pH, skim milk, stability, turbidity.
67. Brooker BE. (1976). Cytochemical observations on the extracellular carbohydrate produced by *Streptococcus cremoris*. *J. Dairy Res.* 43: 283-290. Keywords: agar, carbohydrate, casein, cell, Cheddar cheese, cheese, colloid, curd, glutaraldehyde, micelle, milk, osmium tetroxide, rennet, skim milk, syneresis, whey, TEM.
68. Brooker BE. (1979). Electron microscopy of the dextrans produced by lactic acid bacteria. In: *Microbial Polysaccharides and Polysaccharidases*. RCW Berkeley, GW Gooday and DC Ellwood (eds.), Academic Press, New York. 85-115. Keywords: agar, cell, dextran, gum, lactic acid bacteria, solubility, sugar, TEM, xanthan.
69. Brooker BE. (1979). Milk and its products. In: *Food Microscopy*. JG Vaughan (ed.), Academic Press, New York. 273-311. Keywords: butter, casein, Cheddar cheese, cheese, cream, crystal, curd, fat, globule, lactate, LM, membrane, micelle, milk, phosphate, skim milk, TEM, yoghurt.
70. Brooker BE. (1985). Observations on the air-serum interface of milk foams. *Food Microstruc.* 4: 289-296. Keywords: bubble, casein, foam, interface, micelle, milk, protein, skim milk, TEM, whey.
71. Brooker BE. (1986). Electron microscopy of normal and defective Cottage cheese curd. *J. Soc. Dairy Technol.* 39: 85-88. Keywords: casein, cell, cheese, Cottage cheese, curd, glutaraldehyde, micelle, milk, osmium tetroxide, pH, phage, TEM, whey.
72. Brooker BE. (1987a). The crystallization of calcium phosphate at the surface of mould-ripened cheeses. *Food Microstruc.* 6: 25-33. Keywords: calcium phosphate, casein, cheese, crystal, enzyme, mold, protease, rind, salt.
73. Brooker BE. (1987b). The behaviour of casein micelles in food processing. *Dairy Industries International* 52: 17-20. Keywords: calcium, casein, colloid, fat, fatty acid, gel, globule, Golgi apparatus, micelle, milk, phosphate, protein, TEM, yoghurt.
74. Brooker BE. (1988a). Food quality assessment using microscopy. *Food Technol. Int.*

- Europe, 289-292. Keywords: bubble, calcium, chocolate, crystal, cryomicroscopy, fat, globule, ice cream, milk, protein, SEM, sugar, X-ray microanalysis.
75. Brooker BE. (1988b). The stabilization of air in dairy foams. *Bioscience and Biotechnology* 26: 235-237. Keywords: bubble, casein, cream, cryomicroscopy, fat, foam, freeze fracture, globule, ice cream, interface, micelle, protein, SEM, whipped cream.
76. Brooker BE. (1990). Identification and characterization of cocoa solids and milk proteins in chocolate using X-ray microanalysis. *Food Struct.* 9: 9-21. Keywords: chocolate, cocoa, milk, milk powder, protein, SEM, X-ray microanalysis.
77. Brooker BE, Anderson M, Andrews AT. (1986). The development of structure in whipped cream. *Food Microstruc.* 5: 277-285. Keywords: bubble, casein, cream, fat, foam, freeze fracture, globule, milk, whipped cream.
78. Brooker BE, Hobbs DG, Turvey A. (1975). Observations on the microscopic crystalline inclusions in Cheddar cheese. *J. Dairy Res.* 42: 341-348. Keywords: casein, Cheddar cheese, cheese, crystal, curd, fat, globule, glucono delta lactone, glutaraldehyde, LM, milk, ripening, osmium tetroxide, phosphate, TEM.
79. Brooker BE, Holt C. (1978). Natural variations in the average size of bovine casein micelles. III. Studies on colostrum by electron microscopy and light scattering. *J. Dairy Sci.* 45: 355-362. Keywords: casein, cell, centrifugation, glutaraldehyde, light scattering, micelle, milk, phosphate, TEM, turbidity.
80. Brooker BE, Wells K. (1984). Preparation of dairy products for scanning electron microscopy: etching of epoxy resin-embedded material. *J. Dairy Res.* 51: 505-613. Keywords: casein, Cheddar cheese, cheese, Cream cheese, critical point drying, curd, epoxy resin, etching, fat, globule, glutaraldehyde, micelle, milk, osmium tetroxide, pasteurization, protein, SEM, TEM, whipped cream, yoghurt.
81. Brosio E, Altobelli G, Di Nola A. (1984). A pulsed low resolution NMR study of water binding to milk proteins. *J. Food Technol.* 19: 103-108. Keywords: albumin, casein, gamma-globulin, milk, protein, NMR, water.
82. Brown EM. (1984). Interactions of β -lactoglobulin and α -lactoglobulin with lipids: a review. *J. Dairy Sci.* 67: 713-722. Keywords: emulsion, lactoglobulin, lipid, membrane, protein, surfactant, TEM, vesicle, whey.
83. Buchheim W. (1981). A comparison of the microstructure of dried milk products by freeze fracturing powder suspensions in non-aqueous media. *Scanning Electron Microsc./1981/III:* 493-502. Keywords: butter-milk, casein, cream, cryofixation, freeze fracture, milk, milk powder, protein, quarg, skim milk, sodium caseinate, whey, yoghurt.
84. Buchheim W. (1982a). Aspects of sample preparation for freeze fracture/freeze etch studies of proteins and lipids in food systems. A Review. *Food Microstruc.* 1: 189-208. Keywords: butterfat, casein, cheese, coagulation, colloid, cryomicroscopy, crystal, emulsion, gel, glutaraldehyde, freeze fracture, lipid, micelle, milk, milk powder, process cheese, protein, rennet, skim milk, soy, TEM, water.
85. Buchheim W. (1982b). Electron microscopic localization of solvent extractable fat in agglomerated spray dried whole milk powder particles. *Food Microstruc.* 1: 233-238. Keywords: cryomicroscopy, crystal, fat, globule, milk, milk powder, TEM.
86. Buchheim W. (1982c). Paracrystalline arrays of milk fat globule membrane associated proteins as revealed by freeze-fracturing. *Naturwissenschaften* 69: 505. Keywords: caprine milk, crystal, fat, goat milk, globule, human milk, membrane, milk, protein, triglyceride.
87. Buchheim W. (1984). Influence of different technological treatments of milk on the digestion in the stomach. IV. Electron microscopical characterization of the coagulum and of lipolytic processes in the stomach. *Milchwissenschaft* 39: 271-275. Keywords: casein, curd, digestion, fat, firmness, freeze fracture, globule, lipolysis, milk, monoglyceride, protein, ultrafiltration.
88. Buchheim W. (1986). Membranes of milk fat globules - Ultrastructural, biochemical and technological aspects. *Kieler Milchwirt. Forschungsber.* 38: 227-246. Keywords: casein, coagulation, curd, fat, freeze fracture, globule, Golgi apparatus, membrane, milk, protein, TEM, triglyceride.
89. Buchheim W., Barfod NM, Krog N. (1985). Relation between microstructure, destabilization phenomena and rheological properties of whippable emulsions. *Food Microstruc.* 4: 221-232. Keywords: cream, crystal, emulsion, fat, Haake, NMR, rheology, SFC, surfactant, viscosity, whipped cream, whipped topping.
90. Buchheim W, Dejmek P. (1990). Milk and Dairy-type Emulsions. Chapter 6 in: *Food Emulsions*, 2nd Ed. K Larsson and SE Friberg (eds.), Marcel Dekker, New York. 203-246. Keywords: butter, casein, coffee whitener, cream, EM, emulsion, enzyme, fat, freeze fracture, globule, ice cream, micelle, milk, protein, whipped cream.
91. Buchheim W, Falk G, Hinz A. (1986). Ultrastructural aspects and physico-chemical properties of ultra-high-temperature (UHT) treated coffee cream. *Food Microstruc.* 5: 181-192. Keywords: coffee cream, cream, freeze fracture, micelle, pH, stability, viscosity.
92. Buchheim W, Jelen P. (1976). Microstructure of heat-coagulated whey protein curd. *Milchwissenschaft* 31: 589-592. Keywords: cheese, coagulation, crystal,

- curd, freeze fracture, lactoglobulin, LM, phosphate, protein, TEM, ultrafiltration, whey.
93. Buchheim W, Precht D. (1979). Electron microscopic study on the crystallization processes in fat globules during the ripening of cream. *Milchwissenschaft* 34: 657-662 (in German). Keywords: butter, cream, crystal, EM, fat, freeze fracture, globule, ripening, TEM.
 94. Buchheim W, Prokopek D. (1976). Electron microscopic examination of ultrafiltration concentrates of skim milk and cheese prepared from it. 1. Behaviour of casein micelles during ultrafiltration. *Milchwissenschaft* 31: 462-465 (in German). Keywords: casein, cheese, micelle, milk, skim milk, TEM, ultrafiltration.
 95. Buchheim W, Schmidt DG. (1979). On the size of monomers and polymers of β -casein. *J. Dairy Res.* 46: 277-280. Keywords: casein, centrifugation, freeze-etch, light scattering, protein, TEM, viscosity.
 96. Buchheim W, Thomasow J. 280.(1984). Structural changes in Cream cheese induced by thermal processing and emulsifying salts. *North European Dairy J.* 50: 38-44. Keywords: casein, cheese, Cream cheese, emulsifier, fat, freeze fracture, micelles, TEM, whey.
 97. Buchheim W, Welsch U, Patton S. (1988). Electron microscopy and carbohydrate histochemistry of the human milk fat globule membrane. *Nestle Nutrition Workshop Series* 15: 63-74. Keywords: carbohydrate, fat, globule, human milk, membrane, milk, protein, TEM.
 98. Buma TJ. (1968). A correlation between free fat content and moisture content of whole milk spray powders. *Neth. Milk Dairy J.* 22: 22-28. Keywords: crystal, fat, lactose, milk, milk powder, moisture content.
 99. Buma TJ. (1970). Determination of crystalline lactose in spray dried milk products. *Neth. Milk Dairy J.* 24: 129-132. Keywords: crystal, lactose, LM, milk, milk powder, polarimetry, skim milk.
 100. Buma TJ. (1971a). Free fat in spray dried whole milk. 1. General introduction and brief review of literature. *Neth. Milk Dairy J.* 25: 33-41. Keywords: cream, fat, globule, membrane, milk, milk powder.
 101. Buma TJ. (1971b). Free fat in spray dried whole milk. 2. An evaluation of methods for the determination of free fat content. *Neth. Milk Dairy J.* 25: 42-52. Keywords: fat, globule, LM, milk, milk powder.
 102. Buma TJ. (1971c). Free fat in spray dried whole milk. 3. Particle size. Its estimation, influence on processing parameters and its relation to free fat content. *Neth. Milk Dairy J.* 25: 53-72. Keywords: centrifugation, Coulter counter, density, fat, LM, milk, milk powder, moisture content.
 103. Buma TJ. (1971d). Free fat in spray dried whole milk. 4. Significance of free fat for other properties of practical importance. *Neth. Milk Dairy J.* 25: 86-106. Keywords: butter, cream, density, fat, foam, milk, milk powder, moisture content, solubility.
 104. Buma TJ. (1971e). Free fat in spray dried whole milk. 5. Cohesion: determination, influence of particle size, moisture content and free fat content. *Neth. Milk Dairy J.* 25: 107-122. Keywords: cohesiveness, compression, crystal, fat, friction, lactose, milk, milk powder, moisture content, SEM.
 105. Buma TJ. (1971f). Free fat in spray dried whole milk. 8. The relation between free fat content and particle porosity of spray dried whole milk. *Neth. Milk Dairy J.* 25: 123-140. Keywords: density, fat, milk, milk powder, moisture content, porosity, SEM, viscosity.
 106. Buma TJ. (1971g). Free fat in spray dried whole milk. 9. The size distribution of fat globules in concentrated milk and in spray dried milk. *Neth. Milk Dairy J.* 25: 151-158. Keywords: Coulter counter, fat, globule, milk, milk powder.
 107. Buma TJ. (1971h). Free fat in spray dried whole milk. 10. A final report with a physical model for free fat in spray dried milk. *Neth. Milk Dairy J.* 25: 159-174. Keywords: cohesiveness, Coulter counter, fat, globule, lactose, membrane, milk, milk powder, protein.
 108. Buma TJ. (1972). The cause of particle porosity of spray-dried milk. *Neth. Milk Dairy J.* 26: 60-67. Keywords: density, milk, porosity, skim milk.
 109. Buma TJ. (1978). Particle porosity of spray-dried milk. *Milchwissenschaft* 33: 538-540 (in German). Keywords: casein, fat, milk, milk powder, moisture content, porosity, SEM.
 110. Buma TJ. (1980). Viscosity and density of concentrated lactose solutions and of concentrated cheese whey. *Neth. Milk Dairy J.* 34: 65-68. Keywords: cheese, crystal, density, lactose, moisture content, Ostwald, whey, viscometer, viscosity.
 111. Buma TJ, Henstra S. (1971a). Particle structure of spray dried milk products as observed by a scanning electron microscope. *Neth. Milk Dairy J.* 25: 75-80. Keywords: milk, milk powder, moisture content, SEM, skim milk, whey.
 112. Buma TJ, Henstra S. (1971b). Particle structure of spray dried caseinate and spray dried lactose as observed by a scanning electron microscope. *Neth. Milk Dairy J.* 25: 278-281. Keywords: casein, lactose, milk, milk powder, SEM, skim milk, whey.
 113. Burlingame-Frey JP, Marth EH. (1984). Changes in size of casein micelles caused by growth of psychrotrophic bacteria in raw skim milk. *J. Food Protection* 47: 16-19. Keywords: casein, micelle, milk, pH, psychrotropic bacteria, skim milk, TEM.
 114. Burton H. (1984). Reviews of the progress of dairy science. The bacteriological, chemical, biochemi-

- cal and physical changes that occur in milk at temperatures of 100-150°C. *J. Dairy Res.* 51: 341-363. Keywords: casein, denaturation, micelle, milk, turbidity.
115. Bynum DG, Olson NF. (1982). Standardization of a device to measure firmness of curd during clotting of milk. *J. Dairy Sci.* 65: 1321. Keywords: cheese, clotting, coagulation, curd, firmness, gel, milk, pepsin, rennet, rheology.
 116. Calapaj GG. (1968). An electron microscope study of the ultrastructure of bovine and human casein micelles in fresh and acidified milk. *J. Dairy Res.* 35: 1-6. Keywords: casein, EM, human milk, micelle, milk.
 117. Campanella OH, Peleg M. (1987a). Analysis of the transient flow of mayonnaise in a coaxial viscometer. *J. Rheology* 31: 439-452. Keywords: emulsion, Haake, mayonnaise, rheology, viscoelasticity, viscometer, viscosity.
 118. Campanella OH, Peleg M. (1987b). Lubricated squeezing flow of a Newtonian liquid between elastic and rigid plates. *Rheol. Acta* 26: 396-400. Keywords: compression, friction, lubricated squeezing flow.
 119. Campanella OH, Peleg M. (1987c). Squeezing flow viscometry of peanut butter. *J. Food Sci.* 52: 180-184. Keywords: creep, deformation, lubricated squeezing flow, peanut butter, rheology, viscosity.
 120. Campanella OH, Peleg M. (1988). On food compression by soft machines. *J. Text. Studies* 19: 39-50. Keywords: cheese, compression, deformation, Instron, process cheese, texture.
 121. Campanella OH, Popplewell LM, Rosenau JR, Peleg M. (1987). Elongational viscosity measurements of melting American process cheese. *J. Food Sci.* 52: 1249-1251. Keywords: American process cheese, cheese, Instron, lubricated squeezing flow, melting, process cheese, viscosity.
 122. Cardwell JT, Herzer FH. (1959). Factors affecting the market grade of Mississippi Cheddar cheese. Mississippi Agricultural Experiment Station Technical Bulletin No. 46. Miss. State Univ., Mississippi State, Miss. Keywords: body, Cheddar cheese, cheese.
 123. Caric M. (1987). Mediterranean cheese varieties: ripened cheese varieties native to the Balkan countries. Chapter 8 in: *Cheese: Chemistry, Physics and Microbiology*, Vol. 2. Major Cheese Groups. PF Fox (ed.), Elsevier, London. 257-276. Keywords: amino acid, casein, cheese, coagulation, curd, Feta cheese, Kashkaval cheese, milk, moisture content, protein, ripening, SEM.
 124. Caric M, Gantar M, Kalab M. (1985). Effects of emulsifying agents on the microstructure and other characteristics of process cheese - a review. *Food Microstruc.* 4, 297-312. Keywords: Brick cheese, Cheddar cheese, cheese, citrate, consistency, crystal, curd, curd granule junction, emulsifier, fat, fluorescence mi-
 - croscopy, globule, granule, Gruyere cheese, LM, melting, phosphate, process cheese, protein, SEM, solubility, spreadability, TEM, X-ray microanalysis.
 125. Caric M, Kalab M. (1987a). Effects of drying techniques on milk powders quality and microstructure: a review. *Food Microstruc.* 6: 171-180. Keywords: crystal, lactose, milk, milk powder.
 126. Caric M, Kalab M. (1987b). Processed cheese products. Chapter 11 in: *Cheese: Chemistry, Physics and Microbiology*, Vol. 2. Major Cheese Groups. PF Fox (ed.), Elsevier, London. 339-383. Keywords: Brick cheese, calcium, Cheddar cheese, cheese, citrate, core-and-lining, crystal, curd, curd granule junction, emulsifier, fat, globule, granule, Gruyere cheese, imitation cheese, LM, membrane, milk, phosphate, process cheese, protein, salt, SEM, TEM, X-ray microanalysis.
 127. Carlson A, Hill CG Jr., Olson NF. (1987). The kinetics of milk coagulation: IV. The kinetics of the gel-firming process. *Biotech. Bioengr.* 29: 612-624. Keywords: casein, chymosin, coagulation, enzyme, fat, firmness, gel, micelle, milk, modulus, rennet, viscoelasticity.
 128. Carroll BJ. (1976). The stability of emulsions and mechanisms of emulsion breakdown. *Surface and Colloid Sci.* 9: 1-67. Keywords: centrifugation, coagulation, emulsion, interface, stability, viscosity.
 129. Carroll RJ, Basch JJ, Phillips JG, Farrell HM Jr. (1985). Ultrastructural and biochemical investigations of mature human milk. *Food Microstruc.* 4: 323-331. Keywords: casein, encapsulation, human milk, micelle, milk, TEM.
 130. Carroll RJ, Farrell HM Jr. (1983). Immunological approach to location of k-casein in the casein micelle by electron microscopy. *J. Dairy Sci.* 66: 679-686. Keywords: antibody, casein, colloid, ferritin, immunology, micelle, milk, protein, skim milk.
 131. Carroll RJ, Thompson MP, Melnychyn P. (1971). Gelation of concentrated skim milk: electron microscopic study. *J. Dairy Sci.* 54: 1245-1252. Keywords: casein, centrifugation, gel, micelle, milk, phosphate, skim milk, TEM, whey.
 132. Carroll RJ, Thompson MP, Nutting GC. (1968). Glutaraldehyde fixation of casein micelles for electron microscopy. *J. Dairy Sci.* 51: 1903-1908. Keywords: casein, glutaraldehyde, micelle, milk, osmium tetroxide, skim milk, stability, TEM.
 133. Carter EJV, Sherman P. (1978). Evaluation of the firmness of Leicester cheese by compression tests with the Instron Universal Testing Machine. *J. Text. Studies* 9: 311-324. Keywords: cheese, compression, firmness, friction, Gouda cheese, Instron, Leicester cheese, lubricated squeezing flow.
 134. Casiraghi EM, Bagley EB, Christianson DD.

Structure and Rheology of Dairy Products: Bibliography

- (1985). Behavior of Mozzarella, Cheddar, and processed cheese spread in lubricated and bonded uniaxial compression. *J. Text. Studies* 16: 281-301. Keywords: Cheddar cheese, cheese, compression, fracturability, friction, lubricated squeezing flow, Mozzarella cheese, process cheese.
135. Casiraghi E, Lucisano M, Pompei C. (1989). Correlation among instrumental texture, sensory texture and chemical composition of 5 Italian cheeses. *Ital. J. Food Sci.* 1(1): 53-63. Keywords: cheese, chewiness, cohesiveness, compression, deformation, fat, Grana Padano cheese, gumminess, hardness, Instron, Italico cheese, Montasio cheese, Pecorino cheese, protein, rheology, Sbrinz cheese, texture, TPA.
136. Casiraghi EM, Peri C, Piazza L. (1987). Effect of calcium equilibria on the rate of syneresis and on the firmness of curds obtained from milk UF retentates. *Milchwissenschaft* 42: 232-235. Keywords: citrate, coagulation, colloid, compression, curd, firmness, Instron, milk, modulus, moisture content, permeate, protein, rennet, retentate, rheology, syneresis, ultrafiltration, viscoelasticity, whey.
137. Chang CM, Powrie WD, Fennema O. (1972). Electron microscopy of mayonnaise. *Can. Inst. Food Sci. Technol. J.* 5: 134-137. Keywords: agar, mayonnaise, membrane, oil, stability, TEM.
138. Chang YS, Guo JS, Lee YP, Sperling LH. (1986). Viscoelasticity of cheese. *J. Chem. Educ.* 63: 1077-1078. Keywords: cheese, modulus, process cheese, viscoelasticity.
139. Chaplin LC. (1984). Studies on micellar calcium phosphate: composition and apparent solubility product in milk over a wide pH range. *J. Dairy Res.* 51: 251-257. Keywords: calcium phosphate, micelle, milk, pH, phosphate, solubility.
140. Chari SS, Awasthy BR. (1971). Instrument for determining rheological properties of butter at tropical temperatures. *Indian J. Anim. Sci.* 41: 260-263. Keywords: butter, fat, rheology, thixotropy, viscometer, viscosity.
141. Chawla P, deMan JM, Smith AK. (1990). Crystal morphology of shortenings and margarines. *Food Struc.* 9: 329-336. Keywords: crystal, LM, fat, margarine, osmium tetroxide, polymorphism, SEM, triglyceride, X-ray diffraction.
142. Chen AH, Larkin JW, Clark CJ, Irwin WF. (1979). Textural analysis of cheese. *J. Dairy Sci.* 62: 901-907. Keywords: adhesiveness, Brick cheese, Cheddar cheese, cheese, chewiness, cohesiveness, Colby cheese, Edam cheese, elasticity, Gouda cheese, gumminess, Instron, Mozzarella cheese, Parmesan cheese, Provolone cheese, Swiss cheese, texture, TPA.
143. Chen Y, Rosenberg J. (1977). Nonlinear viscoelastic model containing a yield element for modeling a food material. *J. Text. Studies* 8: 477-485. Keywords: American process cheese, cheese, compression, Instron, rheology, viscoelasticity.
144. Chianese L, Masi P, Laezza P, Petrilli P, Frunzi A, Addeo F. (1986). Proteolysis and texture changes during the ripening of a pasta filata cheese. *Annali della Facolta di Scienze Agrarie della Universita degli Studi di Napoli, Portici*, IV, 20: 1-19. Keywords: buffalo milk, casein, cheese, chymosin, compression, curd, deformation, electrophoresis, General Foods turometer, hardness, lactose, Instron, milk, moisture content, pasta filata cheese, proteolysis, Provolone cheese, rheology, ripening, Scamorza cheese, texture.
145. Cho YK. (1988). Effect of fatty acid monoglyceride composition on rheological properties of ice cream. *Korean J. Food Sci. Technol.* 20: 236-244 (in Korean). Keywords: fat, fatty acid, ice cream, monoglyceride, rheology, stability, viscosity.
146. Chu CF, Peleg M. (1985). The compressive behavior of solid food specimens with small height to diameter ratios. *J. Text. Studies* 16: 451-564. Keywords: American process cheese, bologna, cheese, compression, deformation, modulus, potato, rheology, texture.
147. Chu TEH, Dunkley WL. (1979). Influence of cooking procedures on properties of Cottage cheese curd. *J. Dairy Sci.* 62: 1216. Keywords: cheese, Cottage cheese, curd, firmness, nonfat dry milk, pH.
148. Chung KH, Lee CM. (1990). Relationships between physicochemical properties of non-fish protein and textural properties of protein-incorporated surimi gel. *J. Food Sci.* 55: 972-975, 988. Keywords: centrifugation, gel, protein, surimi, texture.
149. Cook DR. (1981). The effect of certain processing variables and additives on the viscosity of condensed whey. M.S. Thesis, University of MN, St. Paul, MN. Keywords: flow curve, Haake, viscosity, whey.
150. Cooper HR. (1987). Texture in dairy products and its evaluation. Chapter 9 in: *Food Texture. Instrumental and Sensory Measurement*. HR Moskowitz (ed.), Marcel Dekker, New York. pp 217-250. Keywords: butter, cheese, cream, ice cream, milk, whipped cream.
151. Copius Peereboom JW. (1968). Modern views on the physical structure of the membrane of the fat globules in milk and cream and a possible relation with the migration of copper during butter manufacture. *Fette, Seifen, Anstrichmittel* 71: 314-322. Keywords: butter, copper, cream, enzyme, fat, globule, membrane, milk, protein, triglyceride.
152. Coppen FMV. (1939). The assessment of curd firmness prior to cutting. *J. Dairy Res.* 10: 336-339. Keywords: Cheddar cheese, cheese, Cheshire cheese, curd, firmness, Gloucester cheese, modulus, rigidity.

153. Creamer LK, Aston J, Knighton D. (1988). Some differences between Cheddar cheeses made using calf rennet and a microbial coagulant (Rennilase 46L). *N. Z. J. Dairy Sci. Technol.* 23: 185-194. Keywords: Cheddar cheese, cheese, coagulation, compression, deformation, elasticity, hardness, proteolysis, rennet, rheology, ripening.
154. Creamer LK, Berry GP. (1975). A study of the properties of dissociated bovine casein. *J. Dairy Res.* 42: 169-183. Keywords: casein, centrifugation, chromatography, electrophoresis, gel, micelle, phosphate, protein, TEM.
155. Creamer LK, Berry GP, Matheson AR. (1978). The effect of pH on protein aggregation in heated skim milk. *N. Z. J. Dairy Sci. Technol.* 13: 9-15. Keywords: milk, skim milk, pH, protein.
156. Creamer LK, Gilles J, Lawrence RC. (1988). Effect of pH on the texture of Cheddar and Colby cheese. *N. Z. J. Dairy Sci. Technol.* 23: 23-25. Keywords: calcium, Cheddar cheese, cheese, Colby cheese, consistency, compression, electrophoresis, moisture content, pH, rheology, texture, whey.
157. Creamer LK, Iyer M, Lelivre J. (1987). Effect of various levels of rennet addition on characteristics of Cheddar cheese made from ultrafiltered milk. *N. Z. J. Dairy Sci. Technol.* 22: 205-214. Keywords: casein, Cheddar cheese, cheese, curd, electrophoresis, milk, proteolysis, rennet, texture, ultrafiltration.
158. Creamer LK, Lawrence RC, Gilles J. (1985). Effect of acidification of cheese milk on the resultant Cheddar cheese. *N. Z. J. Dairy Sci. Technol.* 20: 185-203. Keywords: calcium, Cheddar cheese, cheese, coagulation, compression, elasticity, enzyme, Instron, milk, proteolysis, rennet, rheology.
159. Creamer LK, Matheson AR. (1980). Effect of heat treatment on the proteins of pasteurized skim milk. *N. Z. J. Dairy Sci. Technol.*, 15, 37-49. Keywords: centrifugation, coagulation, electrophoresis, glutaraldehyde, micelle, milk, pH, protein, skim milk, TEM.
160. Creamer LK, Olson NF. (1982). Rheological evaluation of maturing Cheddar cheese. *J. Food Sci.* 47: 631-636, 646. Keywords: body, casein, Cheddar cheese, cheese, chymosin, compression, electrophoresis, enzyme, moisture content, MTS Tensile Testing machine, pH, rheology, ripening, springiness, texture, TPA.
161. Culoli J, Sherman P. (1976). Evaluation of Gouda cheese firmness by compression tests. *J. Text. Studies* 7: 353-372. Keywords: cheese, compression, firmness, Gouda cheese, Instron, lubricated squeezing flow, texture.
162. Culoli J, Sherman P. (1978). Rheological aspects of the renneting of milk concentrated by ultrafiltration. *J. Text. Studies* 9: 257-281. Keywords: clotting, coagulation, creep, gel, milk, modulus, protein, rennet, rheology, ultrafiltration, viscoelasticity.
163. Danmark H, Bagger LH. (1989). Effects of temperature treatment of sweet cream on physical properties of butter. I. Factors affecting hardness and consistency. *Milchwissenschaft* 44: 156-160. Keywords: butter, consistency, cream, fat, hardness, penetrometer.
164. Dannenberg F, Kessler HG. (1988). Effect of denaturation of β -lactoglobulin on texture properties of set-style nonfat yoghurt. I. Syneresis. *Milchwissenschaft* 43: 632-635. Keywords: casein, consistency, coagulation, denaturation, gel, lactoglobulin, milk, skim milk, texture, whey, yoghurt.
165. Dannenberg F, Kessler HG. (1988). Effect of the denaturation of β -lactoglobulin on texture properties of set-style yoghurt. 2. Firmness and flow properties. *Milchwissenschaft* 43: 700-704. Keywords: casein, curd, denaturation, firmness, gel, lactoglobulin, LFRA texture analyzer, micelle, milk, rheology, skim milk, stabilizer, syneresis, texture, whey, yoghurt.
166. Darling DF. (1982). Recent advances in the destabilization of dairy emulsions. *J. Dairy Res.* 49: 695-712. Keywords: cream, crystal, emulsion, fat, globule, milk, viscosity, whipped cream.
167. Darling DF. (1987). Kinetic aspects of food emulsion behaviour. Chapter 7 in: *Food Structure and Behaviour*. JMV Blanshard and P Lillford (eds.), Academic Press, New York. 107-147. Keywords: cream, emulsion, milk, rheology, stability, viscosity, whipped cream.
168. Darling DF, Birkett RJ. (1986). Food colloids in practice. in: *Food Emulsions and Foams*. E Dickinson (ed.), Royal Society of Chemistry, London. 1-29. Keywords: bubble, colloid, cream, emulsion, foam, whipped cream.
169. Darling DF, Butcher DW. (1978). Milk fat globule membrane in homogenized cream. *J. Dairy Res.* 45: 197-208. Keywords: casein, centrifugation, cream, electrophoresis, fat, gel, globule, glutaraldehyde, interface, lactalbumin, lactoglobulin, membrane, micelle, milk, osmium tetroxide, protein, TEM, ultrafiltration, whey.
170. Davey KR. (1986). Measurement of the hardness and mouthfeel of cheese using a sliding pin consistometer. *J. Text. Studies* 17: 267-274. Keywords: Cheddar cheese, cheese, consistometer, Cream cheese, hardness, Mozzarella cheese, texture.
171. Davey KR, Jones PN. (1985). Evaluation of a sliding pin consistometer for measurement of hardness and spreadability of butter and margarine. *J. Text. Studies* 16: 75-84. Keywords: butter, consistometer, hardness, margarine, spreadability.
172. Davies WL, Davis JG, Dearden DV, Mattick ATR. (1937). Studies in Cheddar cheese. V. The effect

Structure and Rheology of Dairy Products: Bibliography

- of chemical substances on the ripening process. *J. Dairy Res.* 8: 92-104. Keywords: body, Cheddar cheese, cheese, viscosity.
173. Davis FL, Shankar PA, Brooker BE, Hobbs DG. (1978). A heat induced change in the ultrastructure of milk and its effect on gel formation in yoghurt. *J. Dairy Res.* 45: 53-58. Keywords: gel, milk, ripening, yoghurt.
174. Davis JG. (1937). The rheology of cheese, butter and other milk products (The measurement of "body" and "Texture"). *J. Dairy Res.* 8: 245-264. Keywords: butter, cheese, deformation, milk, texture, viscoelasticity.
175. Dawes CJ. (1979). Biological Techniques for Transmission and Scanning Electron Microscopy. Ladd Res. Ind., Burlington, VT. A book of 303 pages, 13 chapters and 2 appendices. Keywords: SEM, TEM.
176. Dejmek P. (1987). Dynamic rheology of rennet curd. *J. Dairy Sci.* 70: 1325-1330. Keywords: Bohlin rheometer, curd, clotting, firmness, gel, rennet, rheology, viscoelasticity, viscometer.
177. de Jong L. (1976). Protein breakdown in soft cheese and its relation to consistency. 1. Proteolysis and consistency of "Noordhollandse Meshanger" cheese. *Neth. Milk Dairy J.* 30: 242-253. Keywords: casein, cheese, consistency, extrusion, Kramer cell, Meshanger cheese, protein, soft cheese.
178. de Jong L. (1977). Protein breakdown in soft cheese and its relation to consistency. 2. The influence of rennet concentration. *Neth. Milk Dairy J.* 31: 314-327. Keywords: casein, cheese, consistency, enzyme, Meshanger cheese, moisture content, protein, proteolysis, rennet, soft cheese.
179. de Jong L. (1978a). The influence of moisture content on the consistency and protein breakdown of cheese. *Neth. Milk Dairy J.* 32: 1-14. Keywords: cheese, consistency, firmness, moisture content, protein.
180. de Jong L. (1978b). Protein breakdown in soft cheese and its relation to consistency. 3. The micellar structure of Meshanger cheese. *Neth. Milk Dairy J.* 32: 15-25. Keywords: casein, cheese, consistency, hardness, Meshanger cheese, micelle, protein, soft cheese, TEM.
181. de Koning PJ, Kaper J, Rollema HS, Driessens FM. (1985). Age thinning and gelation in unconcentrated and concentrated UHT-sterilized skim milk. Effect of native milk proteinase. *Neth. Milk Dairy J.* 39: 71-87. Keywords: casein, electrophoresis, encapsulation, enzyme, gel, milk, protein, proteolysis, skim milk, TEM, viscometer, viscosity.
182. deMan JM. (1968). Cottage cheese texture. *J. Inst. Can. Technol. Aliment.* 1: 76-78. Keywords: cheese, Cottage cheese, Kramer cell, moisture content, texture.
183. deMan JM. (1969a). Effect of mechanical treatment on the hardness of margarine and butter. *J. Text. Studies* 1: 109-113. Keywords: butter, hardness, margarine.
184. deMan JM. (1969b). Food texture measurements with the penetrometer method. *J. Text. Studies* 1: 114-119. Keywords: butter, cheese, margarine, peanut butter, penetrometer, process cheese, texture.
185. deMan JM. (1982). Microscopy in the study of fats and emulsions. *Food Microstruc.* 1: 209-222. Keywords: butter, calcium, cheese, cream, crystal, emulsion, fat, LM, margarine, phosphate, process cheese, SEM, TEM, whipped cream.
186. deMan JM. (1990). Texture. Chapter 8 in: *Principles of Food Chemistry*, second edition, AVI/Van Nostrand Reinhold, New York. 293-333. Keywords: rheology, texture.
187. deMan JM, Dobbs JE, Sherman P. (1977). Spreadability of butter and margarine. in: *Food Texture and Rheology*. P. Sherman (ed.), Academic Press, New York. 43-54. Keywords: butter, margarine, rheology, spreadability, texture.
188. deMan JM, Voisey PW, Rasper VF, Stanley DW. (eds., 1976). *Rheology and Texture in Food Quality*. AVI, Westport, CT. A book of 588 pages including 19 chapters. Keywords: LM, rheology, SEM, TEM, texture.
189. deMan L, deMan JM, Blackman B. (1989). Physical and textural evaluation of some shortenings and margarines. *J. Am. Oil. Chem. Soc.*, 66, 128-132. Keywords: crystal, fat, hardness, margarine, rheology, shortening, texture.
190. Dervisoglu M, Kokini JL. (1986). Steady shear rheology and fluid mechanics of four semi-solid foods. *J. Food Sci.*, 51: 541-546, 625. Keywords: apple sauce, Casson model, Herschel-Bulkley model, ketchup, mustard, power law model, Rheometrics, rheology.
191. Descamps O, Langevin P, Combs DH. (1986). Physical effect of starch/carrageenan interactions in water and milk. *Food Technol.* 40 (4): 81-86. Keywords: Brabender, Brookfield, Instron, milk, penetration, starch, texture, thixotropy, viscometer, viscosity.
192. Desmazeaud MJ, Grignon JC. (1977). General mechanism of protein breakdown during cheese ripening. *Milchwissenschaft* 32: 731-734. Keywords: cheese, protein, proteolysis, rennet.
193. De Wit JN. (1984). Functional properties of whey proteins in food systems. *Neth. Milk Dairy J.* 38: 71-89. Keywords: body, denaturation, milk, protein, solubility, stability, texture, viscosity, whey.
194. De Wit JN, Klarenbeek G. (1983). Effects of various heat treatments on structure and solubility of whey proteins. *J. Dairy Sci.* 67: 2701-2710. Keywords: amino acid, calcium, casein, denaturation, DSC, lactal-

- bumin, lactoglobulin, pH, protein, solubility, whey.
195. Dickinson E. (ed., 1987). Food Emulsions and Foams. Royal Soc. Chem. London. Book of 290 pages. Keywords: casein, colloid, cream, crystal, emulsion, fat, foam, freeze fracture, gelatin, globule, LM, protein, SEM, triglyceride, TEM, whipped cream.
 196. Dickinson E, Goulding IC. (1980). Yield behaviour of crumbly English cheeses in compression. *J. Text. Studies* 11: 51-63. Keywords: Cheddar cheese, cheese, Cheshire cheese, compression, English cheese, Leicester cheese, rheology, texture.
 197. Dickinson E, Stainsby G. (1982). Colloids in Food. Elsevier, New York. Book of 533 pages, including chapters on experimental methods, rheology and colloidal aspects of milk. Keywords: casein, colloid, fat, micelle, milk, rheology, stability.
 198. Dixon BD. (1974). Spreadability of butter: determination. 1. Description and comparison of five methods of testing. *Aust. J. Dairy Technol.* 29: 15-20. Keywords: butter, compression, extrusion, FIRANIRD extruder, firmness, penetrometer, spreadability.
 199. Dixon BD, Parekki J. (1977). The use of a cone penetrometer to measure spreadability of butter or dairy blend. *Dairy Technol.* 8: 15-18. Keywords: butter, penetrometer, spreadability.
 200. Dixon BD, Williams T. (1977). Measurement of butter firmness by secility testing. *Aust. J. Dairy Technol.* 32: 177-179. Keywords: Bingham model, butter, firmness, spreadability.
 201. Downey G, Burgess KJ. (1979). Texture studies on edible protein fibres produced by a wet spinning technique. 1. Fibres produced from casein and carageenan. *J. Food Technol.* 14: 21-31. Keywords: carageenan, casein, elasticity, Instron, protein, texture.
 202. Downey G, Burgess KJ. (1979). Texture studies on edible protein fibres produced by a wet spinning technique. 2. Fibres produced from casein and alginate. *J. Food Technol.* 14: 33-40. Keywords: alginate, casein, elasticity, Instron, pH, protein, texture.
 203. Drake B. (1962). Automatic recording of vibrational properties of foodstuffs. *J. Food Sci.* 27: 182-188. Keywords: cheese, pear, potato.
 204. Duitschaeaver CL, Kemp N, Smith AK. (1988). Microscopic studies of the microflora of Kefir grains and of Kefir made by different methods. *Milchwissenschaft* 43: 479-481. Keywords: glutaraldehyde, lactic acid bacteria, Kefir, LM, osmium tetroxide, phosphate, SEM.
 205. Dunkerley JA, Zadow JD. (1982). Rheological studies of heat-induced coagula from whey protein concentrates. *N. Z. J. Dairy Sci. Technol.* 16: 243-252. Keywords: coagulation, Instron, protein, rheology, whey.
 206. Dunkley WL, Patterson DR. (1977). Rela-
- tions among manufacturing procedures and properties of Cottage cheese. *J. Dairy Sci.* 60: 1824-1840. Keywords: cheese, Cottage cheese, cream, curd, firmness, Kramer cell.
207. Dziezak JD. (1990). Phosphates improve many foods. *Food Technol.* 44: 80-92. Keywords: cheese, hardness, melting, phosphate, process cheese.
 208. Dziuba J, Bochenek A, Ozimek L, Fornal J. (1988). Microstructure of milk proteins coagulated by rennin in the presence of ethanol precipitated whey proteins. *Can. Inst. Food Sci. Technol. J.* 21:300-304. Keywords: casein, cheese, gel, micelle, milk, protein, rennet, skim milk, whey.
 209. Eberhard P. (1985). Rheological properties of some cheese varieties. 1. Emmental cheese. *Schweiz. Milchw. Forschung* 14: 1-7 (in German) Keywords: body, cheese, deformation, Emmental cheese, fat, Instron, moisture content, penetrometer, rheology, ripening, texture.
 210. Eberhard P, Fluckiger E, Puhan Z. (1986). Rheological properties of some cheese varieties. 2. Appenzeller and Tilsiter. *Schweiz. Milchw. Forschung* 15: 97-102 (in German). Keywords: Appenzeller cheese, body, cheese, deformation, elasticity, firmness, Instron, moisture content, protein, proteolysis, rheology, ripening, texture, Tilsit cheese.
 211. Eberhard P, Moor U, Ruegg M. (1988). Composition and physical properties of Raclette cheeses of good and of insufficient melting quality. *Schweiz. Milchw. Forschung* 17: 3-8 (in German). Keywords: cheese, melting, milk, moisture content, Raclette cheese, rheology, texture.
 212. Eino MF, Biggs DA, Irvine DM, Stanley DW. (1976a). Microstructure of Cheddar cheese: sample preparation and scanning electron microscopy. *J. Dairy Res.* 43: 109-111. Keywords: Cheddar cheese, cheese, critical point drying, fat, protein, rennet, SEM, TEM.
 213. Eino MF, Biggs DA, Irvine DM, Stanley DW. (1976b). A comparison of microstructures of Cheddar cheese curd manufactured with calf rennet, bovine pepsin and porcine pepsin. *J. Dairy Res.* 43: 113-115. Keywords: casein, Cheddar cheese, cheese, clotting, coagulation, curd, enzyme, fat, gel, milk, pepsin, protein, proteolysis, rennet, SEM, texture, whey.
 214. Eino MF, Biggs DA, Irvine DM, Stanley DW. (1979). Microstructural changes during ripening of Cheddar cheese produced with calf rennet, bovine pepsin, and porcine pepsin. *Can. Inst. Food Sci. Technol. J.* 12: 149-153. Keywords: Cheddar cheese, cheese, coagulation, critical point drying, milk, pepsin, rennet, ripening, SEM.
 215. Elliott JH, Ganz AJ. (1971). Modification of food characteristics with cellulose hydrocolloids. I. Rheological characterization of an organoleptic property

Structure and Rheology of Dairy Products: Bibliography

- (unctuousness). *J. Text. Studies* 2: 220-229. Keywords: Bingham model, butter, cellulose, cheese, cheese spread, dynamic testing, margarine, mayonnaise, rheology, uncuousness, viscoelasticity, Weissenberg Rheogoniometer.
216. Elliott JH, Gan AJ. (1977). Salad dressings rheological characterization. *J. Text. Studies* 8: 359-371. Keywords: rheology, salad dressing, Weissenberg Rheogoniometer.
217. Elliott JH, Green CE. (1972). Modification of food characteristics with cellulose hydrocolloids. II. The modified Bingham body - a useful rheological model. *J. Text. Studies* 3: 194-205. Key words: Bingham model, butter, cellulose, margarine, mayonnaise, Weissenberg Rheogoniometer.
218. El-Safy MS, El-Zayat AI. (1984). Physical and chemical properties of zabadi manufactured from skim milk powder reconstituted with sweet whey. *J. Dairy Res.* 51: 471-475. Keywords: buffalo milk, milk, skim milk, whey, zabadi.
219. El-Shabrawy SA, Hagrass AE, Sultan NE, Fekry SA. (1987). Composition and scanning electron microscopy of Camembert cheese during ripening. *Ann. Agric. Sci., Ain Shas Univ.* 32 (1): 421-433. Keywords: buffalo milk, Camembert cheese, cheese, critical point drying, glutaraldehyde, milk, milk powder, osmium tetroxide, moisture content, ripening, SEM.
220. El-Zayat I. (1987). Microstructure, free amino acids and free fatty acids in Domiati cheese treated with beta-galactosidase. *Nahrung*, 31(1): 27-37. Keywords: amino acid, casein, cheese, Domiati cheese, fatty acid, glutaraldehyde, lactose, micelle, milk, osmium tetroxide, protein, ripening, TEM.
221. Emmons DB, Ernstrom CA, Lacroix C, Verret P. (1990). Predictive formulas for yield of cheese from composition of milk: a review. *J. Dairy Sci.* 73: 1365-1394. Keywords: casein, Cheddar cheese, cheese, Cottage cheese, fat, milk, salt, SEM, water, whey.
222. Emmons DB, Kalab M, Larmond E, Lowrie RJ. (1980). Milk gel structure. X. Texture and microstructure in Cheddar cheese made from whole milk and from homogenized low-fat milk. *J. Text. Studies* 11: 15-34. Keywords: Cheddar cheese, cheese, compression, fat, firmness, protein, milk, texture.
223. Emmons DB, Price WV. (1959). A curd firmness test for Cottage cheese. *J. Dairy Sci.* 42: 553-556. Keywords: cheese, Cherry-Burrell meter, Cottage cheese, curd, firmness.
224. Escueta EE, Bourne MC, Hood LF. (1986). Effect of boiling treatment of soymilk on the composition, yield, texture and sensory properties of tofu. *Can. Inst. Food Sci. Technol. J.* 19: 53-56. Keywords: chewiness, cohesiveness, gumminess, hardness, Instron, soy, springiness, texture, tofu, TPA.
225. Euber JR, Brunner JR. (1984). Reexamina-
- tion of fat globule clustering and creaming in cow milk. *J. Dairy Sci.* 67: 2821-2832. Keywords: cream, electrophoresis, fat, globule, membrane, milk, protein, skim milk.
226. Eyer H. (1989). Evaluation of the firmness of Swiss butter and examination of involved analytical methods. *Schweiz. Milchw. Forschung* 18(3/4): 43-45 (in German). Keywords: butter, consistency, firmness, spreadability.
227. Farah Z, Bachmann M. (1987). Rennet coagulation properties of camel milk. *Milchwissenschaft* 42, 689-692. Keywords: camel milk, clotting, coagulation, cross linking, freeze fracture, micelle, milk, pH, protein, rennet, TEM.
228. Farah Z, Farah-Riesen M. (1985). Separation and characterization of major components of camel milk casein. *Milchwissenschaft* 40: 669-671. Keywords: camel milk, casein, electrophoresis, gel, milk, protein.
229. Farah Z, Ruegg M. (1989). The size distribution of casein micelles in camel milk. *Food Microstruct.* 8: 211-216. Keywords: camel milk, casein, cryomicroscopy, freeze fracture, micelle, milk, TEM.
230. Farkye NY, Fox PF. (1990). Objective indices of cheese ripening. *Trends in Food Sci. Technol.* 1: 37-40. Keywords: amino acid, cheese, electrophoresis, lactose, pH, proteolysis, rheology, ripening.
231. Farrell HM Jr. (1973). Models for casein micelle formation. *J. Dairy Sci.* 56: 1195-1206. Keywords: casein, glutaraldehyde, micelle, milk, protein, skim milk.
232. Farrell HM Jr. (1988). Physical equilibria: proteins. In: *Fundamentals of Dairy Chemistry*, 3rd ed. NP Wong, R Jenness, M Keeney and EH Marth (eds.), Van Nostrand Reinhold Co., New York. 461-510. Keywords: protein.
233. Faure L. (1985). Plastic and rheological properties of some fats. *Rev. Francaise des Corp Gras.* 32 (3): 105-108 (in French). Keywords: butter, consistency, crystal, elasticity, fat, margarine, penetrometer, rheology, spreadability, TEM, viscosity.
234. Fearon AM, Johnston DE. (1988). Improving butter spreadability - the scientific approach. *Dairy Ind. Internat.* 53(10): 25, 27, 29. Keywords: adhesiveness, butter, cohesiveness, cream, DSC, fat, firmness, fracturability, hardness, melting, NMR, SFC, spreadability, texture, TPA.
235. Fearon AM, Johnston DE. (1989). A comparison of three instrumental techniques to evaluate butter spreadability. *J. Food Quality* 12: 23-38. Keywords: adhesiveness, butter, cohesiveness, consistency, hardness, Instron, modulus, penetrometer, spreadability, texture, TPA.
236. Fedrick IA, Dulley JR. (1984). The effect of elevated storage temperatures on the rheology of Che-

- ddar cheese. *N. Z. J. Dairy Sci. and Tech.* 19: 141-150. Keywords: Cheddar cheese, cheese, hardness, moisture content, protein, proteolysis, rheology, salt, springiness, TPA.
237. Fernandez del Pozo B, Gaya P, Medina M, Rodriguez-Marin A, Nunez M. (1988). Changes in chemical and rheological characteristics of La Serena ewe's milk cheese during ripening. *J. Dairy Res.* 55: 457-464. Keywords: casein, cheese, compression, elasticity, electrophoresis, hardness, Instron, La Serena cheese, milk, moisture content, pH, rheology, ripening, sheep milk.
238. Fernandez-Martin F. (1984). Viscosity and heat capacity of whey retentates from sheep's milk cheese. *J. Dairy Sci.* 51: 455-460. Keywords: cheese, heat capacity, milk, retentate, sheep milk, viscosity, whey.
239. Fichtali J, Van de Voort FR. (1990). Pilot plant production of caseins using extrusion processing. 1. Acid casein production. *Milchwissenschaft* 45: 560-564. Keywords: casein, centrifugation, curd, extrusion, lactose, milk, milk powder, pH, skim milk, whey.
240. Fichtali J, Van de Voort FR, Toupin CJ. (1990a). Effect of coagulation and washing conditions on fines, water holding capacity and microstructure of acid casein curd. *J. Dairy Res.* 57: 527-540. Keywords: calcium, casein, coagulation, curd, lactose, micelle, milk, milk powder, moisture content, pH, phosphate, SEM, skim milk, whey.
241. Fichtali J, Van de Voort FR, Toupin CJ. (1990b). Coagulation and washing conditions for acid casein production from skim milk powder. *Int. J. Food Sci. Technol.* 25: 377-388. Keywords: calcium, casein, coagulation, curd, extrusion, lactose, milk, milk powder, pH, phosphate, skim milk, whey.
242. Fichtali J, Van de Voort FR, Toupin CJ. (1990c). Coagulation and washing conditions for acid casein production from skim milk powder. *Intl. J. Food Sci. Technol.* 28: 377-388. Keywords: casein, coagulation, milk, milk powder, skim milk.
243. Findlay CJ, Stanley DW, Emmons DB. (1984). Chicken pepsin as a rennet substitute. *Can. Inst. Food Sci. Technol. J.* 17: 97-101. Keywords: Cheddar cheese, cheese, enzyme, Instron, pepsin, process cheese, proteolysis, rennet, rheology, SEM, texture.
244. Finney EE Jr. (1969). Objective measurements for texture in foods. *J. Text. Studies* 1: 19-37. Keywords: butter, cheese, Cottage cheese, firmness, ice cream, texture.
245. Fleming K, Jenness R, Morris HA, Schmidt RH. (1985). Properties of calcium caseinates with disparate performance in imitation cheese. *Food Microstruc.* 4: 313-321. Keywords: casein, cheese, emulsion, imitation cheese, fat, melting, protein, water.
246. Fluckiger E, Schilt P. (1963). Formation of salt crystals in Swiss cheeses. *Milchwissenschaft* 18: 437-442 (in German). Keywords: amino acid, casein, cheese, crystal, Emmental cheese, LM, milk, salt, Swiss cheese, tyrosine.
247. Foley J, Moran MA, Cooney CM. (1990). Firmness values of three phase, milk fat-based table spreads as determined by composition and temperature. *J. Dairy Res.* 57: 265-270. Keywords: butter, butterfat, fat, fatty acid, firmness, Instron, milk, NMR, SFC.
248. Foley J, O'Connell C. (1990). Comparative emulsifying properties of sodium caseinate and whey protein isolate in 18% oil in aqueous systems. *J. Dairy Res.* 57: 337-391. Keywords: casein, emulsifier, emulsion, fat, milk, nonfat dry milk, pH, protein, stability, TEM, whey.
249. Ford GD, Grandison AS. (1986). Effect of size of casein micelles on coagulation properties of skim milk. *J. Dairy Res.* 53: 129-133. Keywords: casein, chromatography, clotting, coagulation, enzyme, gel, micelle, milk, rennet, skim milk, syneresis, whey.
250. Forman L, Stern P, Matouskova E. (1989). Rotational rheometry used for butter consistency evaluation. *Milchwissenschaft* 44: 761-764. Keywords: butter, consistency, Ferranti-Shirley viscometer, penetrometer, rheology, spreadability, viscometer, viscosity.
251. Fox KK, Harper MK, Holsinger VN, Pallansch MJ. (1967). Effects of high heat treatment on the stability of calcium caseinate aggregates in milk. *J. Dairy Sci.* 50: 443-450. Keywords: casein, centrifugation, citrate, coagulation, electrophoresis, lactalbumin, lactoglobulin, milk, phosphate, protein, stability, whey.
252. Fox PF. (ed., 1982). *Developments in Dairy Chemistry. 1. Proteins*. Elsevier, London. Book of 409 pages and 12 chapters. Keywords: milk, protein.
253. Fox PF. (ed., 1983). *Developments in Dairy Chemistry. 2. Lipids*. Elsevier, London. Book of 430 pages and 8 chapters. Keywords: lipid, milk.
254. Fox PF. (ed., 1985). *Developments in Dairy Chemistry. 3. Lactose and Minor Constituents*. Elsevier, London. Book of 405 pages and 11 chapters. Keywords: crystal, lactose, milk, sugar.
255. Fox PF. (1987). Cheese manufacture: chemical, biochemical and physical aspects. *Dairy Ind. Internat.* 52(7): 11-13. Keywords: Brookfield, cheese, coagulation, curd, Instron, milk, penetrometer, pH, viscometer.
256. Fox PF. (ed., 1987). *Cheese: Chemistry, Physics and Microbiology. Vol. 1. General Aspects*. Elsevier, London. Book of 400 pages and 10 chapters. Keywords: cheese, coagulation, curd, enzyme, LM, milk, rennet, rheology, ripening, salt, TEM.
257. Fox PF. (ed., 1987). *Cheese: Chemistry, Physics and Microbiology. Vol. 2. Major Cheese*

Structure and Rheology of Dairy Products: Bibliography

- Groups. Elsevier, London. Book of 393 pages and 11 chapters. Keywords: Cheddar cheese, cheese, Domiati cheese, Feta cheese, process cheese, salt, SEM, TEM.
258. Fox PF. (ed., 1989). Developments in Dairy Chemistry. 4. Functional Milk Proteins. Elsevier, London. Book of 383 pages and 9 chapters. Keywords: casein, enzyme, milk, protein, whey.
259. Fox PF, Guiney J. (1973). Casein micelle structure: susceptibility of various casein systems to proteolysis. *J. Dairy Res.* 40: 229-234. Keywords: casein, micelle, proteolysis.
260. Frazeur DR, Harrington RB. (1968a). Low temperature and conventionally frozen ice cream. 1. The effect of storage conditions and heat shocks on body and texture. *Food Technol.* 22: 910-912. Keywords: body, fat, ice cream, milk, texture.
261. Frazeur DR, Harrington RB. (1968b). Low temperature and conventionally frozen ice cream. 2. Interrelationships associated with selected factors affecting body and texture. *Food Technol.* 22: 912-914. Keywords: body, ice cream, texture.
262. Frede E, Peters K-H. (1986). Problems of consistency of butter. *Deutsche Molkerei-Zeitung*, 107 (50): 1710, 1712-1718 (in German). Keywords: butter, consistency, fat, triglyceride.
263. Frede E, Peters K-H. (1988). Spreadability and cutting hardness of vacuum packed butter. *Deutsche Molkerei-Zeitung*, 109 (11): 313-317 (in German). Keywords: butter, hardness, spreadability.
264. Freeman NW, Mangino ME. (1981). Effects of ultra high temperature processing on size and appearance of casein micelles in bovine milk. *J. Dairy Sci.* 64: 1772-1780. Keywords: casein, cross linking, glutaraldehyde, micelle, milk, TEM.
265. Freudenstein C, Keenan TW, Eigel WN, Sasaki M, Stadler J, Franke WW. (1979). Preparation and characterization of the inner coat material associated with fat globule membranes from bovine and human milk. *Exp. Cell Res.* 118: 277-294. Keywords: fat, globule, human milk, membrane, milk.
266. Friedman HH, Whitney JE, Szczesniak AS. (1963) The texturometer - a new instrument for objective texture measurement. *J. Food Sci.* 28: 390-396. Keywords: General Foods texturometer, texture, TPA.
267. Fukui Y, Tada M, Miki E. (1971). Measurements of the physical properties of process cheese by texturometer. *Tech. Bull. Faculty Agr. Kagawa Univ.* 23: 149-155 (in Japanese). Keywords: adhesiveness, Cheddar cheese, hardness, process cheese, moisture content, pH, ripening, texture, TPA.
268. Fukushima M, Sone T, Fukuda E. (1965). Effect of moisture content on the viscoelasticity of cheese. *Zairyo* 14: 270-273 (in Japanese). Keywords: cheese, moisture content, process cheese, viscoelasticity.
269. Garnier J. (1973). Models of casein micelle structure. *Neth. Milk Dairy J.* 27: 240-248. Keywords: casein, micelle.
270. Garnot P, Rank TC, Olson NF. (1982). Influence of protein and fat content of ultrafiltered milk on rheological properties of gels formed by chymosin. *J. Dairy Sci.* 65: 2267-2273. Keywords: chymosin, fat, gel, milk, protein, rheology, ultrafiltration.
271. Garnot P, Olson NF. (1981). Study of enzymatic milk gelation with the curd-firmness tester. *Neth. Milk Dairy J.* 35: 374-376. Keywords: clotting, curd, deformation, enzyme, firmness, gel, milk, proteolysis, rennet, rheology, thrombastograph.
272. Gault P, Mahaut M, Korolczuk J. (1990). Rheological characterization and heat gelatinization of whey protein concentrate. *Le Lait* 70: 217-232. Keywords: elasticity, firmness, gel, milk, pH, protein, rheology, viscoelasticity, viscometer, viscosity, whey.
273. Gavarie DD, Caric M, Kalab M. (1989). Effects of protein concentration in ultrafiltration milk retentates and the type of protease used for coagulation on the microstructure of resulting gels. *Food Microstruct.* 8: 53-66. Keywords: coagulation, gel, milk, protease, protein, retentate, SEM, TEM, ultrafiltration.
274. Glaser J, Carroad PA, Dunkley WL. (1979). Surface structure of Cottage cheese curd by electron microscopy. *J. Dairy Sci.* 62: 1058-1068. Keywords: cheese, coagulation, Cottage cheese, critical point drying, curd, glutaraldehyde, osmium tetroxide, rennet, SEM, TEM, whey.
275. Glaser J, Carroad PA, Dunkley WL. (1980). Electron microscopic studies of casein micelles and curd microstructure in Cottage cheese. *J. Dairy Sci.* 63: 37-48. Keywords: agar, casein, cheese, coagulation, Cottage cheese, curd, gel, glucono-delta-lactone, micelle, milk, SEM, TEM.
276. Goff HD. (1988). The role of chemical emulsifiers and dairy proteins in fat destabilization during the manufacture of ice cream. Ph.D. Thesis, Cornell University, Ithaca, New York. Keywords: crystal, emulsion, fat, ice cream, lipid, protein, stability, TEM, texture, whey.
277. Goff HD, Jordan WK. (1989). Action of emulsifiers in promoting fat destabilization during the manufacture of ice cream. *J. Dairy Sci.* 72: 18-29. Keywords: casein, crystal, emulsifier, fat, globule, ice cream, stability, Tween.
278. Goff HD, Kinsella JE, Jordan WK. (1989). Influence of various milk protein isolates on ice cream emulsion stability. *J. Dairy Sci.* 72: 385-397. Keywords: casein, emulsion, fat, globule, ice cream, interface, milk, protein, stability, viscosity, whey.
279. Goff HD, Liboff M, Jordan WK, Kinsella JE. (1987). The effects of Polysorbate 80 on the fat emul-

- sion in ice cream mix: evidence from transmission electron microscopy studies. *Food Microstruc.* 6: 193-198. Keywords: emulsion, fat, ice cream, membrane, Polysorbate, protein, stability, TEM.
280. Goh HC, Sherman P. (1987). Influence of surface friction on the stress relaxation of Gouda cheese. *J. Text. Studies* 18: 389-404. Keywords: casein, cheese, compression, cross linking, Gouda cheese, lubricated squeezing flow, protein, rheology.
281. Gomez R. (1987). Textural and organoleptic characteristics of yoghurt. Biochemical and microbiological aspects. *Revista Espanola de Lecheria*, No. 17: 13-15 (in Spanish). Keywords: texture, yoghurt.
282. Gooda E, Salem SA, Attia IA, Salam AE. (1988). Chemical, microbiological and rheological properties of Kashkaval cheese manufactured from cow's milk of partially hydrolyzed lactose during ripening. *Egyptian J. Dairy Sci.* 16:107-117. Keywords: cheese, fat, Kashkaval cheese, Kramer cell, lactose, milk, Ottawa texture measuring system, pH, protein, rheology, ripening, texture.
283. Gouda A, El-Shabrawy SA. (1987). Microstructure and some properties of curd made with calf rennet, Rennilase and Suparen rennets. *Chem. Mikrobiol. Technol. Lebensm.* 10: 129-133. Keywords: casein, cheese, coagulation, curd, firmness, Instron, micelle, milk, pepsin, rennet, syneresis, TEM.
284. Goulet J, Paquin C, Beaulieu C, Boisclair RB. (1978). Production of cheese from ultrafiltered milk and reconstituted milk powder. Research Report for the year 1977-78, Nutrition Research Center, Laval University, Quebec. Keywords: cheese, coagulation, curd, firmness, Instron, milk, milk powder, ultrafiltration.
285. Green ML. (1977). Review of the progress of dairy science: milk coagulants. *J. Dairy Res.* 44: 159-188. Keywords: agar, casein, Cheddar cheese, cheese, coagulation, curd, enzyme, firmness, gel, milk, pepsin, proteolysis, rennet, syneresis.
286. Green ML. (1980). The formation and structure of milk protein gels. *Food Chem.* 6: 41-49. Keywords: casein, cheese, coagulation, curd, enzyme, gel, micelle, milk, pH, protein, rennet, rheology, skim milk, viscosity, whey, yoghurt.
287. Green ML. (1985). Effect of milk pretreatment and making conditions on the properties of Cheddar cheese from milk concentrated by ultrafiltration. *J. Dairy Res.* 52: 555-564. Keywords: casein, Cheddar cheese, cheese, curd, firmness, LM, milk, protein, TEM, ultrafiltration.
288. Green ML. (1986). Effect of replacing part of the sodium chloride in Cheddar cheese by sodium or potassium phosphates on ripening, flavor and texture. *J. Dairy Res.* 53: 329-332. Keywords: casein, Cheddar cheese, cheese, firmness, protein, texture.
289. Green ML. (1987). Effect of manipulation of milk composition and curd-forming conditions on the formation, structure and properties of milk curd. *J. Dairy Res.* 54: 303-313. Keywords: calcium, cheese, curd, fat, firmness, gel, milk, rennet, SEM, ultrafiltration, Ultra-viscoson, viscosity, whey.
290. Green ML. (1990). Cheddar cheesemaking from whole milk concentrated by ultrafiltration and heated to 90°C. *J. Dairy Res.* 57: 559-569. Keywords: casein, Cheddar cheese, cheese, coagulation, curd, fat, LM, milk, moisture content, proteolysis, protein, rennet, TEM, texture, ultrafiltration, whey.
291. Green ML, Grandison AS. (1987). Secondary (non-enzymatic) phase of rennet coagulation and post-coagulation phenomena. In: *Cheese: Chemistry, Physics and Microbiology*. Vol. 1. General Aspects. PF Fox (ed.), Elsevier, London. 97-134. Keywords: casein, cheese, coagulation, curd, fat, LM, membrane, milk, rennet, ripening, TEM, ultrafiltration, whey.
292. Green ML, Hobbs DG, Morant SV. (1978). Intermicellar relationships in rennet treated separated milk. I. Preparation of representative electron micrographs. *J. Dairy Sci.* 45: 405-411. Keywords: agar, casein, clotting, encapsulation, gel, glutaraldehyde, micelle, milk, rennet, skim milk, TEM.
293. Green ML, Hobbs DG, Morant SV, Hill VA. (1978). Intermicellar relationships in rennet treated separated milk. II. Process of gel assembly. *J. Dairy Res.* 45: 413-422. Keywords: coagulation, gel, micelle, milk, proteolysis, rennet, TEM, viscosity.
294. Green ML, Langley KR, Marshall RJ, Brooker BE, Willis A, Vincent JFV. (1986). Mechanical properties of cheese, cheese analogs and protein gels in relation to composition and microstructure. *Food Microstruc.* 5: 169-180. Keywords: Cheddar cheese, cheese, compression, deformation, fracturability, gel, imitation cheese, impact testing, Instron, milk, protein.
295. Green ML, Manning DJ. (1982). Development of texture and flavour in cheese and other fermented products. *J. Dairy Res.* 49: 737-748. Keywords: casein, Cheddar cheese, cheese, coagulation, curd, encapsulation, enzyme, fat, gel, micelle, milk, pH, protein, proteolysis, ripening, texture, yoghurt, whey.
296. Green ML, Marshall RJ, Brooker BE. (1985). Instrumental and sensory texture assessment and fracture mechanisms of Cheddar and Cheshire cheeses. *J. Text. Studies* 16: 351-364. Keywords: Cheddar cheese, cheese, Cheshire cheese, compression, fracturability, SEM, texture.
297. Green ML, Marshall RJ, Glover FA. (1983). Influence of homogenization of concentrated milks on the structure and properties of rennet curds. *J. Dairy Res.* 50: 341-348. Keywords: casein, cheese, curd, fat, fatty acid, micelle, milk, protein, rennet, texture,

Structure and Rheology of Dairy Products: Bibliography

- ultrafiltration, whey.
298. Green ML, Turvey A, Hobbs DG. (1981). Development of structure and texture in Cheddar cheese. *J. Dairy Res.*, 48, 343. Keywords: Cheddar cheese, cheese, texture.
 299. Griffin MCA, Price JC, Griffin WG. (1989). Variation of the viscosity of a concentrated sterically stabilized colloid effect of ethanol on casein micelles of bovine milk. *J. Colloid Interface Sci.* 128: 223-229. Keywords: casein, colloid, light scattering, micelle, milk, skim milk, viscosity.
 300. Gruenwedel DW, Whitaker JR. (eds., 1984). Food Analysis. Principles and Techniques. Vol. 1. Physical Characterization. Marcel Dekker, New York. A book of 332 pages and 7 chapters. Keywords: deformation, ice cream, rheology, viscosity.
 301. Guirguis N, Hickey MW. (1987). Some factors affecting nodulation in yoghurt. *Aust. J. Dairy Tech.* 42: 45-47. Keywords: Brookfield, coagulation, milk, viscometer, viscosity, whey, yoghurt.
 302. Gupta S, deMan JM. (1985). Modification of rheological properties of butter. *Milchwissenschaft* 40: 321-325. Keywords: butter, consistency, elasticity, fat, hardness, rheology, spreadability, viscosity.
 303. Gupta SK, Patil GR, Patel AA, Garg FC, Rajorhia GD. (1990). Instron texture profile parameters of Koha as influenced by composition. *J. Food Sci. Technol.* 27: 209-213. Keywords: adhesiveness, buffalo milk, chewiness, cohesiveness, fat, gumminess, hardness, Instron, Koha, milk, protein, springiness, texture, TPA.
 304. Guthy K, Auerswald D, Buchheim W. (1989). Electron microscopic and viscometric studies of the primary phase of rennet coagulation of milk. *Milchwissenschaft* 44: 560-563. Keywords: casein, coagulation, freeze fracture, micelle, milk, rennet, TEM, viscometer, viscosity.
 305. Guthy K, Hong Y-H, Klostermeyer H. (1983). On the aggregation kinetics of casein micelles in UHT milk during storage. *Milchwissenschaft* 38: 321-323. Keywords: casein, Coulter counter, enzyme, micelle, milk, proteolysis, skim milk.
 306. Halim HK, Shoemaker CF. (1990). Effect of addition of alpha casein, beta casein, kappa casein, and Na-caseinate on viscoelastic properties of skim milk curd. *J. Text. Studies* 21: 323-338. Keywords: casein, curd, milk, rheology, skim milk, viscoelasticity.
 307. Hall DM, Creamer LK. (1972). A study of the submicroscopic structure of Cheddar, Cheshire and Gouda cheese by electron microscopy. *N. Z. J. Dairy Sci. Technol.* 7: 95-102. Keywords: Cheddar cheese, cheese, Cheshire cheese, fat, globule, Gouda cheese, moisture content, pH, protein, rind, SEM, TEM.
 308. Hallstroem M, Dejmek P. (1988). Rheological properties of ultrafiltered skim milk. I. Effects of pH, temperature and heat pretreatment. *Milchwissenschaft* 43: 31-34. Keywords: Bohlin rheometer, casein, membrane, micelle, milk, permeate, pH, power law model, protein, rheology, skim milk, stability, ultrafiltration, viscometer, viscosity.
 309. Hallstroem M, Dejmek P. (1988). Rheological properties of ultrafiltered skim milk. II. Protein voluminosity. *Milchwissenschaft* 43: 95-98. Keywords: cream, milk, protein, rheology, skim milk, ultrafiltration, viscosity, voluminosity.
 310. Hamza-Chaffai A. (1990). Rheological characterization of chocolate gelled milk; optimization of the technological parameters. *Le Lait* 70: 155-167. Keywords: chocolate, gel, milk, rheology.
 311. Hardy J. (1987). The organoleptic properties of cheese. 1. Physical properties. In: *Cheesemaking: Science and Technology*, 2nd ed. A Eck (ed.) Technique et Documentation-Lavoisier, Paris, France. 322-332. Keywords: cheese, Instron, TPA.
 312. Harper JM. (1990). Extrusion of foods. In: *Biotechnology and Food Process Engineering*. HG Schwartzberg and MA Rao (eds.). IFT Basic Symposium Series. Marcel Dekker, New York, 295-308. Keywords: extrusion, protein, SEM, soy, starch.
 313. Harvey CD, Morris HA, Jenness R. (1982). Relation between melting and textural properties of process Cheddar cheese. *J. Dairy Sci.* 65: 2291-2295. Keywords: Cheddar cheese, cheese, chewiness, cohesiveness, compression, gumminess, hardness, Instron, melting, process cheese, springiness, texture, TPA.
 314. Harwalkar VR. (1982). Age gelatinization of sterilized milks. In: *Developments in Dairy Chemistry*, Part 1: Proteins. PF Fox (ed.) Elsevier, London. 229-269. Keywords: milk, skim milk, TEM.
 315. Harwalkar VR, Allan-Wojtas P, Kalab M. (1989). Effect of heating to 200°C on casein micelles in milk: a metal shadowing and negative staining electron microscope study. *Food Microstruc.* 8: 217-224. Keywords: casein, micelle, milk, TEM.
 316. Harwalkar VR, Kalab M. (1980). Milk gel structure. XI. Electron microscopy of glucono-delta-lactone induced skim milk gels. *J. Text. Studies* 11: 35-49. Keywords: casein, core-and-lining, density, firmness, freeze fracture, gel, glucono-delta-lactone, milk, pH, SEM, skim milk, TEM.
 317. Harwalkar VR, Kalab M. (1981). Effect of acidulents and temperature on microstructure, firmness and susceptibility to syneresis of skim milk gels. *Scanning Electron Microsc.*/1981/III: 503-513. Keywords: casein, core-and-lining, firmness, gel, glucono-delta-lactone, lactoglobulin, milk, pH, skim milk, syneresis.
 318. Harwalkar VR, Kalab M. (1985). Microstructure of isoelectric precipitates from β -lactoglobulin solu-

- tions heated at various pH values. *Milchwissenschaft*, 40: 665-668. Keywords: denaturation, glutaraldehyde, lactoglobulin, pH, protein, osmium tetroxide, TEM.
319. Harwalkar VR, Kalab M. (1986). Relationship between microstructure and susceptibility to syneresis in yoghurt made from reconstituted nonfat dry milk. *Food Microstruc.* 5: 287-294. Keywords: density, milk, nonfat dry milk, protein, SEM, syneresis, TEM, yoghurt.
320. Harwalkar VR, Kalab M. (1988). The role of β -lactoglobulin in the development of the core-and-lining structure of casein particles in acid-heat-induced milk gels. *Food Microstruc.* 7: 173-179. Keywords: casein, core-and-lining, gel, lactoglobulin, micelle, milk, protein, salt, whey.
321. Harwalkar VR, Kalab M, Emmons DB. (1977). Gels prepared by adding D-glucuno-delta-lactone to milk at high temperature. *Milchwissenschaft* 32: 400-402. Keywords: casein, clotting, gel, glucuno-delta-lactone, milk, penetrometer, pH, skim milk, yoghurt.
322. Harwalkar VR, Vreeman HJ. (1978). Effect of added phosphates and storage on changes in ultrahigh temperature short-time sterilized concentrated skim milk. 2. Micelle structure. *Neth. Milk Dairy J.* 32: 204-216. Keywords: micelle, milk, phosphate, skim milk.
323. Hashizume K, Sato T. (1988a). Gel-forming characteristics of milk proteins. 1. effect of heat treatment. *J. Dairy Sci.* 71: 1439-1446. Keywords: coagulation, curd, firmness, gel, glucuno-delta-lactone, milk, penetrometer, pH, protein, skim milk.
324. Hashizume K, Sato T. (1988b). Gel-forming characteristics of milk proteins. 2. Roles of sulphydryl groups and disulfide bonds. *J. Dairy Sci.* 71: 1477-1454. Keywords: coagulation, curd, firmness, gel, glucuno-delta-lactone, milk, penetrometer, pH, protein, skim milk.
325. Hassan HN. (1988). Microstructure and texture of some cheese varieties in Egypt. *Alex. Sci. Exch.* 9: 53-67. Keywords: adhesiveness, casein, cheese, chewiness, coagulation, cohesiveness, Domiati cheese, elasticity, fat, glutaraldehyde, Gouda cheese, gumminess, hardness, Kariesh cheese, Kashkaval cheese, Mish cheese, moisture content, Ottawa texture measuring system, process cheese, protein, Provolone cheese, Ras cheese, Roquefort cheese, SEM, springiness, texture, TPA.
326. Hatfield DS. (1981). A new instrument to measure cheese curd rigidity, and preliminary trials in cheese making. *J. Soc. Dairy Technol.* 34: 139-142. Keywords: cheese, compression, curd, rigidity.
327. Hayakawa M, Hayakawa S, Nakamura R. (1986). Studies on consistency of butter. A review. *J. Dairy Food Sci.* 35(3): A81-A92. Keywords: butter, consistency, crystal, extrusion, fat, firmness, hardness, margarine, milk, penetrometer, rheology, spreadability, texture.
328. Heathcock JF. (1985). Characterisation of milk proteins in confectionery products. *Food Microstruc.* 4: 17-27. Keywords: caramel, casein, confection, cryomicroscopy, crystal, fat, fudge, freeze fracture, globule, milk, milk chocolate, protein, SEM, sugar, TEM, whey.
329. Heertje I, Boskamp MJ, van Kleef F, Gortemakers FH. (1981). The microstructure of process cheese. *Neth. Milk Dairy J.* 35: 177-179. Keywords: casein, cheese, fat, freeze fracture, gel, globule, micelle, process cheese, protein, TEM.
330. Heertje I, Leunis M, van Zeyl WJM, Berends E. (1987). Product morphology of fatty products. *Food Microstruc.* 6: 1-8. Keywords: butter, cryomicroscopy, crystal, fat, freeze fracture, margarine, SEM.
331. Heertje I, Nederlof J, Hendrickx HACM, Lucassen-Reynders EH. (1990). The observation of the displacement of emulsifiers by confocal scanning laser microscopy. *Food Struc.* 9: 305-316. Keywords: casein, confocal microscopy, emulsifier, interface, LM, protein.
332. Heertje I, van der Vlist P, Blonk JCG, Hendrickx HACM, Brakenhoff GJ. (1987). Confocal scanning laser microscopy in food research: some observations. *Food Microstruc.* 6: 115-120. Keywords: butter, cheese, confocal microscopy, dough, LM, margarine, mayonnaise.
333. Heertje I, Visser J, Smits P. (1985). Structure formation in acid milk gels. *Food Microstruc.* 4: 267-277. Keywords: calcium phosphate, casein, EM, freeze fracture, gel, micelle, milk, phosphate.
334. Heintzberger H, Koops J, Westerbeek D. (1972). Gelation of sterilized canned evaporated milk. *Neth. Milk Dairy J.* 26: 31-40. Keywords: evaporated milk, fat, gel, milk, moisture content, phosphate, protein, stability, TEM, viscometer, viscosity.
335. Hellenga C, Somers DJ, Koenaards JPJM. (1986). Viscosity of stirred yoghurt: modern techniques useful in analysing and improving routine measurements. *Neth. Milk Dairy J.* 40: 217-240. Keywords: consistency, Deer rheometer, funnel, milk, pseudoplasticity, rheology, viscometer, viscosity, yoghurt.
336. Henstra S, Schmidt DG. (1970). On the structure of the fat-protein complex in homogenized cow's milk. *Neth. Milk Dairy J.* 24: 45-51. Keywords: agar, casein, encapsulation, fat, globule, milk, protein, TEM.
337. Herian K. (1986). Changes in pH and consistency of processed cheese during storage. *Zbornik Prac Vyskumneho Ustavu Mliekarskeho v Zilinie* 9: 177-186 (in Slovak). Keywords: cheese, consistency, deformation, emulsifier, penetrometer, pH, process cheese, salt, viscoelasticity.
338. Hermansson A-M. (1979). Aggregation and

Structure and Rheology of Dairy Products: Bibliography

- denaturation involved in gel formation. In: Functionality and Protein Structure. ACS Symposium Series 92. A Pour-El (ed.), Am. Chem. Soc. Washington, D.C., 81-103. Keywords: coagulation, denaturation, DSC, gel, glutaraldehyde, pH, protein, SEM, soy, turbidity, whey.
339. Hermansson A-M. (1986). Water- and fat-holding. In: Functional properties of food macromolecules. JR Mitchell and DA Ledward (eds.), Elsevier, London, 273-314. Keywords: centrifugation, fat-holding, gel, LM, protein, SEM, TEM, tofu, water-holding, whey.
340. Herrick JP, Rosenau JR. (1980). Processing effects on rheological properties of Cheddar cheese extended with tofu. Am. Soc. of Agric. Eng., St. Joseph, MI. Paper no. ASAE, NAR 80-502. Keywords: Cheddar cheese, cheese, imitation cheese, rheology, tofu.
341. Hindle EJ, Wheelock JV. (1970). The release of peptides and glycopeptides by the action of heat on cow's milk. *J. Dairy Res.* 37: 397-405. Keywords: glycopptide, milk, peptide.
342. Hobbs DG. (1979). An improved method of preparing bovine milk fat globules for electron microscopy. *Milchwissenschaft* 34: 201-202. Keywords: agar, centrifugation, cream, fat, globule, membrane, milk, TEM.
343. Hokes JC, Mangino ME, Hansen PMT. (1982). A model system for curd formation and melting properties of calcium caseinates. *J. Food Sci.* 47: 1235, 1240, 1249. Keywords: casein, cheese, curd, imitation cheese, lipid, LM, melting, process cheese, protein, TEM, water.
344. Holcomb DN. (1990). Food Microstructure - cumulative index. *Food Struc.* 9: 155-173. Includes papers from 1979 to 1980, inclusive. Keywords: adulteration, carbohydrate, fat, fluorescence microscopy, LM, meat, milk, packaging, plant, SEM, TEM, X-ray microanalysis.
345. Holcomb DN, Ford LD, Martin RW Jr. (1990). Dressings and Sauces. Chapter 8 in: *Food Emulsions*, 2nd Ed. K Larsson and SE Friberg (eds.), Marcel Dekker, New York. 327-365. Keywords: encapsulation, EM, mayonnaise, rheology, salad dressing, sauce, stability, starch, viscosity.
346. Holdsworth SD. (1971). Applicability of rheological models to the interpretation of flow and processing behaviour of fluid food products. *J. Text. Studies* 2: 393-418. Keywords: milk, pseudoplasticity, rheology, thixotropy.
347. Holsinger VH. (1988). Lactose. In: *Fundamentals of Dairy Chemistry*, Third Edition. NP Wong, R Jenness, M Keeny and EH Marth (eds.), Van Nostrand Reinhold Company, New York, 279-342. Keywords: crystal, lactose, LM, milk, SEM, sugar.
348. Holt C. (1985). The size distribution of bovine casein micelles: a review. *Food Microstruc.* 4: 1-10. Keywords: casein, chromatography, light scattering, micelle, milk, TEM.
349. Holt C, Baird L. (1978). Natural variations in the average size of bovine casein micelles. I. Milks from individual Ayrshire cows. *J. Dairy Res.* 45: 339-345. Keywords: casein, light scattering, micelle, milk, turbidity.
350. Holt C, Muir DD. (1978). Natural variations in the average size of bovine casein micelles. II. Milk samples from creamery bulk silos in south west Scotland. *J. Dairy Res.* 45: 347-353. Keywords: casein, centrifugation, colloid, micelle, milk, pH, phosphate, skim milk, ultrafiltration.
351. Hori T. (1982). Effects of freezing and thawing green curds before processing on the rheological properties of Cream cheese. *J. Food Sci.* 47: 1811-1817. Keywords: cheese, compression, Cream cheese, curd, hardness, NMR, rheology, texture, water.
352. Hori T. (1985). Objective measurements of the process of curd formation during rennet treatment of milks by the hot wire method. *J. Food Sci.* 50: 911-917. Keywords: cheese, curd, gel, milk, rennet, Saint Paulin cheese, texture.
353. Horisberger M, Vauthhey M. (1984). Localization of k-casein on thin sections of casein micelles by the gold method. *Histochem.* 80: 9-12. Keywords: casein, core-and-lining, glutaraldehyde, immunology, micelle, protein, TEM.
354. Horisberger M, Vonlanthen M. (1980). Localization of glycosylated k-casein micelles by lectin-labelled gold granules. *J. Dairy Res.* 47: 185-191. Keywords: agar, casein, centrifugation, encapsulation, galactose, glutaraldehyde, gold, lactose, lectin, micelle, milk, skim milk, TEM.
355. Hossain MA. (1976). The influence of protein fractions on the coagulation of milk and firmness of the curd. *Kieler Milch. Forsch.* 28: 43-58. Keywords: coagulation, curd, firmness, milk, protein.
356. Hostettler HJ, Imhof K, Stein J. (1965). Studies on the effect of heat treatment and lyophilisation on the state of distribution and physiological properties of milk proteins with special consideration to the heat treatment conditions applied in the uperisation. I. Effect on the state of distribution of milk proteins. *Milchwissenschaft* 20: 189-198 (in German). Keywords: milk, protein, uperisation.
357. Hough G, Martinez E, Contarini A. (1990). Sensory and objective measurement of sandiness in dulce de leche, a typical Argentine dairy product. *J. Dairy Sci.* 73: 604-611. Keywords: crystal, dulce de leche, lactose, sandiness.
358. Hough G, Moro O, Segura J, Calvo N.

- (1988). Flow properties of dulce de leche, a typical Argentine dairy product. *J. Dairy Sci.* 71: 1783-1788. Keywords: Brookfield, consistency, dulce de leche, Hooke, Herschel-Bulkley model, milk, thixotropy, viscometer.
359. Huebner VR, Thomsen LC. (1957a). Spreadability and hardness of butter. I. Development of an instrument for measuring spreadability. *J. Dairy Sci.* 40: 834-838. Keywords: brittleness, butter, hardness, rheology, spreadability.
360. Huebner VR, Thomsen LC. (1957b). Spreadability and hardness of butter. II. Some factors affecting spreadability and hardness. *J. Dairy Sci.* 40: 839-846. Keywords: body, butter, cream, granule, hardness, iodine value, milk, spreadability.
361. Hung LT, Shen HS, Chang HS. (1987). Transmission electron microscopy for the observation of different heat-treated bovine milk casein micelles. *J. Chinese Soc. Animal Sci.* 16: 191-200 (in Chinese). Keywords: casein, centrifugation, glutaraldehyde, micelle, milk, osmium tetroxide, pasteurization, TEM.
362. Imoto EM, Lee C-H, Rha C. (1979). Effect of compression ratio on the mechanical properties of cheese. *J. Food Sci.* 44: 343-345. Keywords: American cheese, Cheddar cheese, cheese, compression, Cream cheese, Mozzarella cheese, process cheese.
363. Inagaki T. (1986a). Physical properties and sensory evaluation of cheese. *Bull. Nippon Vet. Zootech. Coll.*, 1986, No. 35: 219-224. Keywords: cheese, process cheese, TPA.
364. Inagaki T. (1986b). Viscous behavior of soft yoghurt. *Bull. Nippon Vet. Zootech. Coll.*, No. 35: 225-229. Keywords: fat, milk, thixotropy, viscometer, viscosity, yoghurt.
365. Itoh T, Katoh M, Adachi S. (1978). An improved method for the preparation of crystalline β -lactose and observations on the melting point. *J. Dairy Res.* 45: 363-371. Keywords: crystal, DTA, lactose, melting, solubility, X-ray crystallography.
366. Jablonka MS, Munro PA. (1986a). Development of an objective method for assessing the mechanical strength of casein curd. *J. Dairy Res.* 53: 61-68. Keywords: casein, cohesiveness, compression, curd, extrusion, firmness, Instron, pH, skim milk, whey.
367. Jablonka MS, Munro PA. (1986b). Effect of precipitation temperature and pH on the mechanical strength of batch precipitated acid casein curd. *J. Dairy Res.* 53: 69-73. Keywords: calcium, casein, cohesiveness, curd, pH, whey.
368. Jackman RL, Yada RY. (1989). Multivariate analysis of functional and structure-related properties of whey-vegetable composites. *Can. Inst. Food Sci. Technol. J.* 22: 260-269. Keywords: emulsion, pH, protein, solubility, whey.
369. Jamrichova S. (1985). Effect of technological factors on rheological properties of cultured milk products. *Prumysl Potravin 36* (8): 416-419 (in Slovak). Keywords: coagulation, milk, pseudoplasticity, rheology, Rheostat, ripening, thixotropy, viscometer, viscosity, yoghurt.
370. Jamrichova S. (1986a). Use of rheology and rheometry in manufacture of cultured milk products. *Zbornik Prac Vyskumneho Ustavu Mliekarskeho v Ziline 9*: 119-128 (in Slovak). Keywords: coagulation, milk, rheology, Rheostest, viscometer, viscosity, yoghurt.
371. Jamrichova S. (1986b). Effect of technological factors on the rheological properties of cultured milk products. *Zbornik Prac Vyskumneho Ustavu Mliekarskeho v Ziline 9*: 129-138 (in Slovak). Keywords: coagulation, milk, rheology, ripening, stabilizer, starch, yoghurt.
372. Janssen MMT, Walstra P. (1982). Cytoplasmic remnants in milk of certain species. *Neth. Milk Dairy J.* 36: 365-368. Keywords: fluorescence microscopy, goat milk, human milk, LM, milk, pig milk, rabbit milk, rat milk, sheep milk.
373. Jasik K. (1987). Dynamics of the butter proportioning process with respect to rheological properties. *Zeszyty Problemowe Postepow Nauk Rolniczych*, No. 328:77-85 (in Polish). Keywords: butter, Instron, rheology, Rheostest, thixotropy, viscometer, viscosity.
374. Jelen P, Buchheim W. (1984). Stability of whey protein upon heating in acidic conditions. *Milchwissenschaft* 39: 215-218. Keywords: coagulation, pH, protein, stability, whey.
375. Jelen P, Buchheim W, Peters K-H. (1987). Heat stability and use of milk with modified casein:whey protein content in yoghurt and cultured milk products. *Milchwissenschaft* 42: 418-421. Keywords: casein, cream, firmness, milk, pH, protein, rennet, skim milk, stability, ultrafiltration, viscosity, yoghurt, whey.
376. Jelen P, Kalab M, Greig RIW. (1979). Water holding capacity and microstructure of heat coagulated whey protein powders. *Milchwissenschaft* 34: 351-356. Keywords: coagulation, protein, water, water-holding, whey.
377. Jenness R. (1982). Inter-species comparison of milk proteins. In: *Developments in Dairy Chemistry*, 1: Proteins. PF Fox (ed.), Elsevier, London. 87-114. Keywords: milk, protein.
378. Johnson ME, Riesterer BA, Olson NF. (1990). Influence of non-starter bacteria on calcium lactate crystallization on the surface of Cheddar cheese. *J. Dairy Sci.* 73: 1145-1149. Keywords: calcium, Cheddar cheese, cheese, crystal, lactate, lactic acid bacteria.
379. Johnston DE. (1984a). Application of polymer cross-linking theory to rennet induced milk gels. J.

Structure and Rheology of Dairy Products: Bibliography

- Dairy Sci. 51: 91-101. Keywords: cross linking, gel, milk, modulus, rennet.
380. Johnston DE. (1984b). Application of polymer cross-linking theory to rennet induced milk gels; a further comment. *Neth. Milk Dairy J.* 38: 265-266. Keywords: casein, cross linking, gel, micelle, milk, modulus, rennet.
381. Jost R, Dannenberg F, Rosset J. (1989). Heat-set gels based on oil/water emulsions: an application of whey protein functionality. *Food Microstruc.* 8: 23-28. Keywords: emulsion, gel, glutaraldehyde, globule, lecithin, lipid, osmium tetroxide, protein, SEM, TEM, whey.
382. Jowitt R. (1974). The terminology of food texture. *J. Text. Studies* 5: 341-358. Keywords: texture.
383. Juriaanse AC, Heertje I. (1988). Microstructure of shortenings, margarine and butter - a review. *Food Microstruc.* 7: 181-188. Keywords: butter, crystal, fat, margarine, rheology, sandiness, SFC, shortening.
384. Kalab M. (1977a). Milk gel structure. VI. Cheese texture and microstructure. *Milchwissenschaft* 32: 449-458. Keywords: Cheddar cheese, cheese, Edam cheese, gel, Gouda cheese, Mozzarella cheese, Provolone cheese, SEM, TEM, texture.
385. Kalab M. (1977b). Milk gel structure. VII. Fixation of gels composed of low-methoxyl pectin and milk. *Milchwissenschaft* 32: 719-723. Keywords: agar, calcium, casein, Cottage cheese, gel, glutaraldehyde, micelle, milk, osmium tetroxide, pectin, phosphate, TEM, yoghurt.
386. Kalab M. (1978). Milk gel structure. VIII. Effect of drying on the scanning electron microscopy of some dairy products. *Milchwissenschaft*, 33: 353-358. Keywords: Cheddar cheese, cheese, Cottage cheese, critical point drying, gel, milk, SEM, skim milk, yoghurt.
387. Kalab M. (1979a). Scanning electron microscopy of dairy products: an overview. *Scanning Electron Microsc./1979/III:* 261-272. Keywords: cheese, Cottage cheese, firmness, SEM, skim milk, syneresis, viscosity, yoghurt.
388. Kalab M. (1979b). Microstructure of dairy foods. 1. Milk products based on protein. *J. Dairy Sci.* 62: 1352-1364. Keywords: Brick cheese, casein, Cheddar cheese, cheese, Cottage cheese, crystal, curd, curd granule junction, fat, firmness, gel, Gouda cheese, granule, lactic acid bacteria, micelle, milk, milk powder, pectin, phosphate, protein, rennet, SEM, skim milk, syneresis, TEM, yoghurt.
389. Kalab M. (1980a). Possibilities of an electron microscopic detection of buttermilk made from sweet cream in adulterated skim milk. *Scanning Electron Microsc./1980/III:* 645-651. Keywords: buttermilk, casein, centrifugation, coagulation, cream, crystal, fat, freeze fracture, globule, lactose, membrane, micelle, skim milk, SEM, skim milk, TEM, yoghurt.
390. Kalab M. (1980b). Milk gel structure. XII. Replication of freeze fractured and dried specimens for electron microscopy. *Milchwissenschaft*, 35: 657-662. Keywords: casein, cell, cheese, Cottage cheese, critical point drying, freeze fracture, gel, glucono-delta-lactone, glutaraldehyde, lactic acid bacteria, micelle, milk, osmium tetroxide, SEM, skim milk, TEM.
391. Kalab M. (1981). Electron microscopy of milk products: a review of techniques. *Scanning Electron Microsc./1981/III:* 453-472. Keywords: agar, Brick cheese, buttermilk, casein, Cheddar cheese, cheese, Cottage cheese, Cream cheese, crystal, curd, curd granule junction, encapsulation, fat, gel, globule, lactic acid bacteria, lactose, LM, membrane, micelle, milk, phosphate, protein, SEM, skim milk, starch, TEM, whey, yoghurt.
392. Kalab M. (1983). Electron microscopy of Foods. Chapter 2 in: *Physical Properties of Foods*. M Peleg and EB Bagley (eds.), AVI Pub. Co., Westport, CT. 43-104. Keywords: Blue cheese, casein, Cheddar cheese, cheese, chocolate, coagulation, cocoa, core-and-lining, cryomicroscopy, crystal, curd, curd granule junction, emulsion, enzyme, fat, fluorescence microscopy, freeze fracture, gas, gel, granule, Kefir, lactalbumin, lactic acid bacteria, lactoglobulin, lactose, LM, membrane, micelle, milk, Mozzarella cheese, pH, phosphate, process cheese, protein, rheology, SEM, skim milk, syneresis, TEM, thickening, ultrafiltration, whey, White cheese, yoghurt.
393. Kalab M. (1984). Artefacts in conventional scanning electron microscopy of some milk products. *Food Microstruc.* 3: 95-111. Keywords: crystal, lactose, milk, SEM.
394. Kalab M. (1985). Microstructure of dairy foods. 2. Milk products based on fat. *J. Dairy Sci.* 68: 3234-3248. Keywords: agar, butter, casein, centrifugation, cheese, chocolate, cream, Cream cheese, cryo-microscopy, crystal, emulsion, encapsulation, fat, freeze fracture, globule, glutaraldehyde, ice cream, interface, membrane, micelle, milk, osmium tetroxide, protein, SEM, TEM, whipped cream.
395. Kalab M. (1986). Microstructure of milk products - a brief review. *Mjekarstvo* 36: 355-370. Keywords: Brick cheese, Brie cheese, buttermilk, calcium, Camembert cheese, casein, centrifugation, Cheddar cheese, cheese, citrate, Cream cheese, crystal, curd, curd granule junction, fat, freeze fracture, globule, Gouda cheese, ice cream, Kashkaval cheese, lactic acid bacteria, lactose, LM, membrane, micelle, milk, milk powder, phosphate, process cheese, protein, proteolysis, rennet, SEM, skim milk, TEM, yoghurt.
396. Kalab M. (1988). Encapsulation of viscous

- foods in agar gel tubes for electron microscopy. *Food Microstruc.* 7: 213-214. Keywords: agar, encapsulation, gel, SEM, TEM.
397. Kalab M. (1990). Microparticulate protein in foods. *J. Am. Coll. Nutr.* 9: 374-387. Keywords: casein, cell, cheese, corn, gel, lactoglobulin, micelle, milk, pH, process cheese, protein, Ricotta cheese, SEM, starch, TEM, yoghurt, wheat, whey.
398. Kalab M, Allan-Wojtas P, Phipps-Todd BE. (1983). Development of microstructure in set-style nonfat yoghurt - a review. *Food Microstruc.* 2: 51-66. Keywords: casein, firmness, gel, lactic acid bacteria, micelle, milk, rotary shadowing, SEM, syneresis, TEM, thickening, yoghurt.
399. Kalab M, Allan-Wojtas P, Yang AF. (1988). Sample holders for solid and viscous foods compatible with the Hexland Cryotrans CT 1000 assembly. *Food Microstruc.* 7: 115-120. Keywords: cryomicroscopy, crystal, freeze fracture, Hexland, salad dressing, whipped cream, yoghurt.
400. Kalab M, Caric M, Zaher M, Harwalkar VR. (1989). Composition and some properties of spray dried retentates obtained by the ultrafiltration of milk. *Food Microstruc.* 8: 225-233. Keywords: crystal, lactose, milk, milk powder, retentate, SEM, ultrafiltration, water activity.
401. Kalab M, Comer F. (1982). Detection of buttermilk solids in meat binders by electron microscopy. *Food Microstruc.* 1: 49-54. Keywords: buttermilk, casein, centrifugation, crystal, fat, globule, lactose, meat binder, membrane, micelle, milk, mustard, nonfat dry milk, TEM, wheat.
402. Kalab M, Emmons DB. (1974). Milk gel structure. III. Microstructure of skim milk powder and gels as related to the drying procedure. *Milchwissenschaft* 29: 585-589. Keywords: casein, gel, micelle, milk, milk powder, protein, osmium tetroxide, SEM, skim milk, TEM.
403. Kalab M, Emmons DB. (1978). Milk gel structure. 9. Microstructure of cheddarred curd. *Milchwissenschaft* 33: 670-673. Keywords: casein, Cheddar cheese, cheese, curd, curd granule junction, fat, freeze fracture, gel, globule, granule, membrane, milk, protein, ripening, TEM.
404. Kalab M, Emmons DB, Sargent AG. (1975). Milk gel structure. IV. Microstructure of yoghurts in relation to the presence of thickening agents. *J. Dairy Res.* 42: 453-458. Keywords: carrageenan, casein, firmness, gel, micelle, milk, penetrometer, SEM, starch, TEM, thickening, yoghurt.
405. Kalab M, Emmons DB, Sargent AG. (1976). Milk gel structure. V. Microstructure of yoghurt as related to the heating of milk. *Milchwissenschaft* 31: 402-408. Keywords: agar, casein, centrifugation, electrophoresis, gel, glutaraldehyde, lactoglobulin, micelle, milk, osmium tetroxide, SEM, skim milk, starch, TEM, yoghurt.
406. Kalab M, Gupta SK, Desai HK, Patil GR. (1988). Development of microstructure in raw, fried, and fried and cooked Paneer made from buffalo, cow, and mixed milks. *Food Microstruc.* 7: 83-91. Keywords: buffalo milk, casein, compression, core-and-lining, critical point drying, fat, firmness, globule, glutaraldehyde, Instron, lactoglobulin, milk, moisture content, osmium tetroxide, Paneer, pH, protein, salt, SEM, TEM.
407. Kalab M, Harwalkar VR. (1973). Milk gel structure. I. Application of scanning electron microscopy to milk and other food gels. *J. Dairy Sci.* 56: 835-842. Keywords: casein, egg, gel, gelatin, glutaraldehyde, micelle, milk, protein, SEM, soy, tofu, whey.
408. Kalab M, Harwalkar VR. (1974). Milk gel structure. II. Relation between firmness and ultrastructure of heat-induced skim-milk gels containing 40-60% total solids. *J. Dairy Res.* 41: 131-135. Keywords: casein, firmness, gel, milk, penetrometer, phosphate, SEM, skim micelle, TEM.
409. Kalab M, Lowrie RJ, Nichols D. (1982). Detection of curd granule and milled curd junctions in Cheddar cheese. *J Dairy Sci.* 65: 1117-1121. Keywords: Cheddar cheese, cheese, curd, curd granule junction, glutaraldehyde, granule, photography.
410. Kalab M, Modler HW. (1985a). Milk gel structure. XV. Electron microscopy of whey protein-based Cream cheese spread. *Milchwissenschaft* 40: 193-196. Keywords: Cheddar cheese, cheese, Cream cheese, curd, curd granule junction, fat, glutaraldehyde, milled curd junctions, photography, SEM, TEM.
411. Kalab M, Modler HW. (1985b). Development of microstructure in a Cream cheese based on Queso Blanco cheese. *Food Microstruc.* 4: 89-98. Keywords: casein, cheese, coagulation, core-and-lining, Cream cheese, cryomicroscopy, curd, fat, globule, granule, milk, protein, Queso Blanco cheese, SEM, TEM, White cheese.
412. Kalab M, Palo V. (1987). Development of structure in Olomouc cheese cakes: electron microscopic study. *Milchwissenschaft* 42: 207-211. Keywords: casein, cheese, cryomicroscopy, curd, fat, fluorescence microscopy, glutaraldehyde, Hexland, LM, milk, Olomouc cheese, osmium tetroxide, SEM, skim milk, TEM.
413. Kalab M, Phipps-Todd BE, Allan-Wojtas P. (1982). Milk gel structure. XIII. Rotary coating of casein micelles for electron microscopy. *Milchwissenschaft* 37: 513-518. Keywords: casein, glutaraldehyde, micelle, milk, nonfat dry milk, rotary shadowing, TEM.
414. Kalab M, Sargent AG, Froelich DA. (1981). Electron microscopy and sensory evaluation of commercial Cream cheese. *Scanning Electron Microsc.* 1981/III:

- 473-482. Keywords: adhesiveness, agar, cheese, compression, Cream cheese, creaminess, curd, fat, firmness, freeze fracture, globule, glutaraldehyde, membrane, osmium tetroxide, Ottawa texture measuring system, protein, SEM, spreadability, TEM, texture.
415. Kalab M, Voisey PW, Harwalkar VR, Larose JAG. (1973). Heat-induced milk gels. VI. Effect of temperature on firmness in comparison with some common food gels. *J. Dairy Sci.* 56:998-1003. Keywords: agar, Cheddar cheese, cheese, egg, firmness, gel, gelation, milk, penetrometer, skim milk, soy, starch, tofu.
416. Kalab M, Yun J, Yiu SH. (1987). Textural properties and microstructure of process cheese food rework. *Food Microstruc.* 6: 181-192. Keywords: cheese, emulsifier, LM, melting, osmium tetroxide, phosphate, process cheese food, protein, rework, SEM, TEM.
417. Kapsalis JG, Betscher JJ, Kristoffersen T, Gould IA. (1960). Effect of chemical additives on the spreading quality of butter. I. The consistency of butter as determined by mechanical and consumer panel evaluation methods. *J. Dairy Sci.* 43: 1560-1569. Keywords: butter, consistency, spreadability.
418. Kataoka K, Nukada K, Miyamoto T, Nakae T. (1987). Changes in hardness and protein degradation during Camembert cheese ripening. *Jap. J. Zootech. Sci.* 58: 356-358 (in Japanese). Keywords: Blue cheese, Camembert cheese, Cheddar cheese, cheese, Emmenthal cheese, Gouda cheese, hardness, moisture content, pH, protein, ripening.
419. Katsuta K, Rector D, Kinsella JE. (1990). Viscoelastic properties of whey protein gels: mechanical model and effects of protein concentration on creep. *J. Food Sci.* 55: 516-521. Keywords: creep, cross linking, gel, protein, rheology, viscoelasticity, whey.
420. Kawanari M, Hamann DD, Swartzel KR, Hansen AP. (1981). Rheological and texture studies of butter. *J. Text. Studies* 12: 483-505. Keywords: butter, compression, extrusion, firmness, Instron, modulus, penetrometer, rheology, spreadability, texture.
421. Kebay KMK, Morris HA. (1990). Effect of homogenization of reconstituted nonfat dry milk and butter oil mixtures on curd formation and characteristics. *Cultured Dairy Products J.*, February, 1990. pp. 12-14, 16, 18. Keywords: butter, butter oil, coagulation, curd, fat, firmness, globule, hardness, milk, nonfat dry milk, syneresis.
422. Kebay KMK, Morris HA. (1987). Porosity, specific gravity and fat dispersion in Blue cheeses. *Food Microstruc.* 7: 153-160. Keywords: Blue cheese, butter, butter oil, cheese, cream, globule, fat, milk, nonfat dry milk, porosity, skim milk, specific gravity.
423. Kebay KMK, Morris HA. (1990). Porosity, specific gravity and air content in Blue cheeses. *Food Struc.* 9, 57-60. Keywords: Blue cheese, cheese, cream, fat, milk, moisture content, pasteurization, porosity, skim milk, specific gravity, whey.
424. Keenan TW, Dylewski DP. (1985). Symposium: Nutrient uptake across the mammary gland. Aspects of intracellular transit of serum and lipid phases of milk. *J. Dairy Sci.* 68: 1025-1040. Keywords: calcium, casein, fat, fatty acid, globule, Golgi apparatus, lactose, lipid, membrane, milk, protein, TEM.
425. Keenan TW, Dylewski DP, Woodford TA, Ford RH. (1983). Origin of milk fat globules and the nature of the milk fat globule membrane. In: *Developments in Dairy Chemistry*. 2. Lipids, PF Fox (ed.), Appl. Sci. Publ., London. 83-118. Keywords: fat, globule, membrane, milk, protein, TEM.
426. Keenan TW, Heid HW, Stadler J, Jarasch E-D, Franke WW. (1982). Tight attachment of fatty acids to proteins with milk lipid globule membrane. *Europe J. Cell Biol.* 26: 270-276. Keywords: chromatography, electrophoresis, enzyme, fatty acid, globule, lipid, membrane, milk, protein.
427. Keenan TW, Mather IH, Dylewski DP. (1988). Physical equilibria: lipid phase. In: *Fundamentals of Dairy Chemistry* 3rd ed. NP Wong, R Jenness, M Keeney and EH Marth (eds.), Van Nostrand Reinhold Co., New York. 511-582. Keywords: globule, Golgi apparatus, lipid, membrane, milk, protein, TEM.
428. Keenan TW, Moon T-W, Dylewski DP. (1983). Lipid globules retain globule membrane material after homogenization. *J. Dairy Sci.* 66: 196-203. Keywords: agar, centrifugation, cholesterol, electrophoresis, enzyme, fat, globule, glutaraldehyde, lipid, membrane, milk, osmium tetroxide, protein, skim milk, TEM.
429. Kerr TJ, Washam CJ, Evans AL, Rigsby WE. (1983). Structural characterization of spray dried dairy products by scanning electron microscopy. *Dev. Ind. Microbiol.* 24: 475-484. Keywords: milk, SEM, whey.
430. Kfouri M, Hardy J. (1987). Rheological behavior of Saint-Paulin type cheese during pressing. *Sci. Aliments*, 7: 177-183 (in French). Keywords: cheese, creep, curd, Instron, modulus, moisture content, rheology, Saint Paulin cheese, viscoelasticity, viscosity, whey.
431. Kfouri M, Mpaganwa M, Hardy J. (1989). Effect of cheese ripening on rheological properties of Camembert and Saint Paulin cheeses. *Lait*, 69: 137-149 (in French). Keywords: Camembert cheese, cheese, compression, Instron, rheology, ripening, Saint Paulin cheese, viscoelasticity.
432. Kikuchi E, Hori T, Sogo Y, Kobayashi H, Kusakabe I, Murakami K. (1988). The effect of maturing on the texture of fiber-structured cheese. Sensory and rheological evaluation. *J. Jap. Soc. Food Sci. Technol.* 35 (1): 33-39 (in Japanese). Keywords: cheese,

- compression, curd, deformation, enzyme, firmness, modulus, rennet, rheology, ripening, String cheese, texture.
433. Kikuchi E, Kobayashi H, Kusakabe I, Murakami K. (1988). Fiber-structured cheese making with Irpex lacteus milk-clotting enzyme. *Agric. Biol. Chem.* 52: 1277-1278. Keywords: cheese, clotting, enzyme, milk, protease, texture.
434. Kim BY, Kinsella JE. (1989a). Rheological changes during slow acid induced gelation of milk by D-glucono-d-lactone. *J. Food Sci.* 54: 894-898. Keywords: dynamic testing, firmness, gel, glucono-delta-lactone, milk, protein, rheology, viscoelasticity.
435. Kim BY, Kinsella JE. (1989b). Effect of temperature and pH on the coagulation of casein. *Milchwissenschaft* 44: 622-625. Keywords: casein, coagulation, micelle, milk, pH, protein, skim milk, turbidity, viscosity.
436. Kimber AM, Brooker BE, Hobbs DG, Prentice JH. (1974). Electron microscope studies of the development of structure in Cheddar cheese. *J. Dairy Res.* 41: 389-396. Keywords: casein, Cheddar cheese, cheese, curd, fat, globule, glutaraldehyde, LM, micelle, milk, osmium tetroxide, rennet, TEM.
437. Kimura T. (1988). Structure and fibrous texture of String cheese. *Jap. J. Dairy and Food Sci.* 37: A303-A304 (in Japanese). Keywords: cheese, String cheese, texture.
438. Kimura T, Sagara Y, Kako M, Taneya S. (1990). Macrostructure of String cheese. *Nippon Nogeikagaku Kaishi* 64: 177-186 (in Japanese). Keywords: cheese, fat, LM, protein, SEM, String cheese, stretchability, texture, water.
439. Kimura T, Sagara Y, Tanimoto M. (1986). Microstructure of Cream cheese observed by cryo-SEM. Effects of melting salts and shear rate on cheese structure during processing. Report Number 83 of Res. Lab., Snow Brand Milk Prod., Japan: 43-54 (in Japanese). Keywords: calcium, casein, cheese, Cream cheese, cryomicroscopy, crystal, emulsion, fat, globule, melting, process cheese, protein, SEM.
440. Kimura T, Taneya S. (1978). Electron microscopic observation of casein particles in cheese. *J. Electron Microsc.* 24: 115-117. Keywords: casein, cheese, EM.
441. Kimura T, Taneya S, Kanaya K. (1979). Observation of internal structure of casein submicelles by means of ion beam sputtering. *Milchwissenschaft* 34: 521-524. Keywords: casein, glutaraldehyde, ion beam sputtering, micelle, milk, osmium tetroxide, TEM.
442. Kindstedt PS, Rippe JK, Duthie CM. (1989). Measurement of Mozzarella cheese melting properties by helical viscometry. *J. Dairy Sci.* 72: 3117-3122. Keywords: Brookfield, cheese, Helipath, melting, Mozzarella cheese, viscometer, viscosity.
443. Kindstedt PS, Rippe JK, Duthie CM. (1989). Application of helical viscometry to study commercial Mozzarella cheese melting properties. *J. Dairy Sci.* 72: 3123-3128. Keywords: cheese, curd, melting, Mozzarella cheese, proteolysis, rheology, viscosity.
444. King N. (1965). The physical structure of dried milk. *Dairy Sci. Abstr.* 27: 91-104. Keywords: casein, density, fat, lactose, micelle, milk, moisture content, protein, skim milk, viscometer, whey.
445. Kirchmeier O. (1980a). Results of rheological studies on milk and milk products. *Milchwissenschaft* 35: 75-77 (in German) Keywords: Camembert cheese, casein, cheese, Contraves, denaturation, gel, micelle, milk, process cheese, protein, rheology, viscometer, viscosity, whey.
446. Kirchmeier O. (1980b). Flow behavior of concentrated casein solutions. *Milchwissenschaft* 35: 336-339 (in German) Keywords: casein, cheese, Contraves, process cheese, rennet, rheology, thixotropy, viscometer, viscosity.
447. Kirchmeier O. (1982). *Milchwissenschaft*, 37: 648-650. Keywords: butter, cream, fat, globule, stability.
448. Kirst E. (1986). Lipolytic changes in the milk fat of raw milk and their effects on the quality of milk products. *Food Microstruc.* 5: 265-275. Keywords: fat, lipolysis, milk.
449. Klostermeyer H, Buchheim W. (1988). Microstructure of processed cheese products. *Kieler Milchwirt. Forschungsber.* 40: 219-231. Keywords: cheese, fat, freeze fracture, melting, process cheese, protein, TEM.
450. Klostermeyer H, Merkenich K. (1983). Formation of crystals in process cheese. I. The phenomenon and its sources. *Milchwissenschaft* 38: 582-585 (in German) Keywords: calcium, cheese, citrate, crystal, lactose, LM, melting, phosphate, process cheese, SEM, tyrosine, X-ray crystallography.
451. Klostermeyer H, Uhlmann G, Merkenich K. Formation of crystals in process cheese. II. Identification of a new citrate. *Milchwissenschaft* 39: 195-197 (in German) Keywords: cheese, citrate, crystal, process cheese, SEM, X-ray crystallography.
452. Knoop A-M, Buchheim W. (1984). Different development of the structure in Harz, Tilsit and Camembert cheeses during ripening. *Milchwissenschaft* 35: 482-488 (in German) Keywords: calcium, Camembert cheese, casein, cheese, curd, enzyme, freeze fracture, Harz cheese, micelle, phosphate, protein, rennet, ripening, TEM, Tilsit cheese, luminosity, whey.
453. Knoop A-M, Knoop E, Wiechen A. (1973). Electron microscopical investigations on the structure of the casein micelles. *Neth. Milk Dairy J.* 27: 121-127.

Structure and Rheology of Dairy Products: Bibliography

Keywords: casein, EM, micelle.

454. Knoop A-M, Knoop E, Wiechen A. (1979). Sub-structure of synthetic casein micelles. *J. Dairy Res.* 46: 347-350. Keywords: casein, citrate, gel, micelle, milk, pH, phosphate, TEM.

455. Knoop A-M, Peters K-H. (1971). Submicroscopic structural variations during ripening of Camembert cheese. *Milchwissenschaft* 26: 193-198 (in German) Keywords: Camembert cheese, casein, cheese, enzyme, fat, globule, membrane, rind, ripening, TEM.

456. Knoop A-M, Peters K-H. (1975a). The curd structures obtained by rennet and acid coagulation of milk. *Kieler Milchwirt. Forschungsber.* 27: 227-248 (in German) Keywords: Camembert cheese, casein, coagulation, cheese, curd, gel, LM, micelle, milk, rennet, TEM.

457. Knoop A-M, Peters K-H. (1975b). Structural changes of rennet curds during aging. *Kieler Milchwirt. Forschungsber.* 27: 315-329 (in German). Keywords: casein, curd, enzyme, glutaraldehyde, micelle, milk, osmium tetroxide, pH, protein, proteolysis, rennet, ripening, TEM.

458. Knoop A-M, Prokopek D, Peters K-H. (1979). Submicroscopic structural changes during ripening of Tilsit cheese obtained by different manufacturing procedures. *Kieler Milchwirt. Forschungsber.* 31: 97-113 (in German) Keywords: calcium, casein, cheese, citrate, fat, globule, membrane, milk, osmium tetroxide, phosphate, ripening, salt, TEM, Tilsit cheese.

459. Knoop E. (1972). Electron microscopical studies on the structure of milk fat and protein. *Milchwissenschaft* 27: 364-373 (in German) Keywords: casein, crystal, fat, freeze fracture, globule, micelle, milk, TEM, viscosity, X-ray crystallography.

460. Kokini JL. (1985). Fluid and semi-solid texture and texture-taste interactions. *Food Technol.* 39(1): 86-92, 94. Keywords: butter, cream, cream cheese, creaminess, ice cream, milk, spreadability, texture, thickness, viscosity.

461. Kokini JL, Cussler EL. (1983). Predicting the texture of liquid and melting semi-solid foods. *J. Food Sci.* 48: 1221-1225. Keywords: creaminess, friction, melting, rheology, smoothness, texture, thickness.

462. Kokini JL, Dickie A. (1981). An attempt to identify and model transient viscoelastic flow in foods. *J. Text. Studies* 12: 539-557. Keywords: apple butter, Bird-Leider model, butter, frosting, ketchup, margarine, mayonnaise, rheology, viscoelasticity.

463. Kokini JL, Dickie A. (1982). A model of food spreadability from fluid mechanics. *J. Text. Studies* 13: 211-227. Keywords: apple butter, butter, frosting, cheese, Cream cheese, honey, margarine, mayonnaise, mustard, peanut butter, spreadability, squeeze margarine, stick margarine, whipped butter, whipped Cream

cheese, whipped topping.

464. Kondo Y, Watabe T, Aita S. (1990). Application of the frozen thin sectioning method to the observation and X-ray microanalysis of cheese by using an analytical transmission electron microscope. *J. Jap. Soc. Food Sci. Technol.* 37(1): 45-47 (in Japanese). Keywords: cheese, process cheese, TEM, X-ray microanalysis.

465. Korolczuk J. (1981). Voluminosity and viscosity of casein solutions. II. The correlation between the voluminosity and the empirical constants of regression equations. *Milchwissenschaft* 36: 467-469. Keywords: casein, protein, Rheotest, viscometer, viscosity, voluminosity.

466. Korolczuk J, Mahaut M. (1989). Viscosimetric studies on acid type cheese texture. *J. Text. Studies* 20: 169-178. Keywords: cheese, Contraves, fat, protein, rheology, viscometer, viscosity.

467. Korolczuk J, Mahaut M. (1990a). Relaxation studies of acid type cheese texture by a constant speed cone penetrometric method. *J. Text. Studies* 21: 107-122. Keywords: Calin cheese, cheese, consistency, fat, LFRA texture analyzer, penetrometer, protein, rheology, Saint Ceols cheese, Saint Moret cheese, Silhouette cheese, texture, ultrafiltration, viscoelasticity, yoghurt.

468. Korolczuk J, Mahaut M. (1990b). Effect of temperature, shearing time and rate of shear on the apparent viscosity of fresh cheeses. *Lait* 70: 15-21. Keywords: cheese, fat, milk, rheology, skim milk, viscometer, viscosity.

469. Korolczuk J, Maubois J-L. (1987). Computerized viscometric method for studying rennet coagulation of milk. *J. Text. Studies*, 18: 157-172. Keywords: coagulation, Contraves, firmness, gel, milk, milk powder, pH, rennet, skim milk, viscometer, viscosity.

470. Korolczuk J, Maubois J-L, Cardenes R, Grosclaude G. (1986). Computerized rheometric method for studying rennet coagulation of milk. *Lait*, 66 (2): 99-115. Keywords: calcium, coagulation, enzyme, gel, milk, pH, rennet, rheology, viscoelasticity, viscometer, viscosity.

471. Kosikowski FV. (1982). *Cheese and Fermented Milk Foods*, 2nd ed. F.V. Kosikowski and Associates, Brooktondale, New York. A book of 711 pages and 37 chapters. Keywords: butter, buttermilk, Cheddar cheese, cheese, Cottage cheese, cream, milk, process cheese, ripening, whey.

472. Koutake M, Uchida Y, Sato T, Shimoda K, Kimura T, Sagara Y, Watanabe A, Nakao S. (1987). Filtration membrane fouling in ultrafiltration of skim milk. II. Scanning electron microscopy and chemical analyses of fouling. *J. Agric. Chem. Soc. Japan*, 61: 683-689 (in Japanese). Keywords: gel, membrane, milk, protein, SEM, skim milk, ultrafiltration, whey.

473. Kovacs P, Titlow BD. (1976). Stabilizing Cottage cheese creaming emulsions with a xanthan gum blend. *Am. Dairy Rev.*, April, 1976. pp. 34J-34L, 34N. Keywords: Brookfield, cheese, Cottage cheese, curd, emulsifier, emulsion, fat, galactomannan, gum, stabilizer, viscometer, viscosity, whey, xanthan.
474. Kowalchyk AW, Olson NF. (1979). Firmness of enzymatically-formed milk gels measured by resistance to oscillatory deformation. *J. Dairy Sci.* 61: 1375-1379. Keywords: deformation, enzyme, firmness, gel, milk, pepsin, rennet, rheology.
475. Kramer A. (1957). Food texture rapidly gaged with versatile shear press. *Food Engr.* 29: 57. Keywords: Kramer cell, rheology, texture.
476. Krog N, Barfod NM, Buchheim W. (1987). Protein-fat-surfactant interactions in whippable emulsions. In: *Food Emulsions and Foams*, E. Dickinson (ed.), Royal Soc. Chem., London, UK. 144-157. Keywords: casein, cream, crystal, emulsion, fat, NMR, protein, SFC, surfactant, TEM, whippable emulsion, whipped cream.
477. Krog N, Barfod NM, Sanchez RM. (1989). Interfacial phenomena in food emulsions. *J. Disp. Sci. Technol.* 10: 483-504. Keywords: casein, cell, cream, emulsifier, emulsion, fat, film, freeze fracture, globule, ice cream, interface, lipid, LM, milk, protein, skim milk, soy, TEM, whipped cream.
478. Kudo S, Iwata S, Mada M. (1979). An electron microscopic study of the location of κ -casein in casein micelles by periodic acid-silver methenamine staining. *J. Dairy Sci.* 62: 916-920. Keywords: casein, centrifugation, glutaraldehyde, micelle, milk, protein, TEM.
479. Kulkarni S, Ramamurthy MK. (1985a). Effect of moisture and solids-not-fat on rheological characteristics of butter. *J. Food Sci. Technol.* (India) 22: 358-361. Keywords: butter, extrusion, fat, hardness, moisture content, penetrometer, rheology, spreadability, stickiness, viscometer, viscosity.
480. Kulkarni S, Ramamurthy MK. (1985b). Effect of ripening and salting on rheological properties of butter from buffalo cream. *J. Food Sci. Technol.* (India) 22: 408-411. Keywords: buffalo milk, butter, cream, extrusion, hardness, penetrometer, rheology, ripening, spreadability, stickiness, viscometer, viscosity.
481. Kulkarni S, Ramamurthy MK. (1985c). Studies on changes in rheological characteristics of butter stored at different temperatures for different periods. *Ind. J. Dairy Sci.* 38(2): 111-114. Keywords: buffalo milk, butter, cream, hardness, rheology, viscometer, viscosity.
482. Kulkarni S, Ramamurthy MK. (1985d). Rheological characteristics of popular brands of butter sold in Bangalore market. *Ind. J. Dairy Sci.* 38(2): 136-
138. Keywords: butter, fat, milk, rheology, viscosity.
483. Kulkarni S, Ramamurthy MK. (1986a). Comparison of rheological characteristics of cow and buffalo cream butter. *J. Food Sci. Technol. (India)* 23: 331-332. Keywords: buffalo milk, butter, cream, extrusion, fat, milk, penetrometer, rheology, triglyceride, viscosity.
484. Kulkarni S, Ramamurthy MK. (1986b). Interrelationship among rheological characteristics of butter measured by objective and subjective methods. *Ind. J. Dairy Sci.* 39(1): 65-68. Keywords: buffalo milk, butter, cream, FIRA-NIRD extruder, hardness, penetrometer, rheology, spreadability, stickiness, viscosity.
485. Kulkarni S, Ramamurthy MK. (1987a). Relation between properties of fat and rheological characteristics of butter. *Ind. J. Dairy Sci.* 40(2): 232-237. Keywords: buffalo milk, butter, consistency, fat, fatty acid, milk, NIRD extruder, penetrometer, rheology, stickiness, spreadability, viscometer, viscosity.
486. Kulkarni S, Ramamurthy MK. (1987b). Effect of modified thermal treatment of cream on rheological characteristics of buffalo cream butter. *Ind. J. Dairy Sci.* 40(3): 368-371. Keywords: buffalo milk, butter, cream, fat, hardness, NIRD extruder, penetrometer, rheology, rheology, spreadability, viscometer, viscosity.
487. Lacroix C, Lachance O. (1988). The effects of humectants on water activity and rheological properties of yoghurt. *Can. Inst. Food Sci. Technol.* J. 21: 511-519. Keywords: consistency, humectant, rheology, water activity, yoghurt.
488. Lai HM, Schmidt SJ. (1990). Lactose crystallization in skim milk powder observed by hydrodynamic equilibria, scanning electron microscopy and ^{2}H nuclear magnetic resonance. *J. Food Sci.* 55: 994-999. Keywords: crystal, lactose, NMR, SEM, water activity.
489. Lalic LM, Berkovic K, Magdalenic B. (1987). Changes in rheological properties of yoghurt during storage. *Mjekarstvo* 37(2): 35-42 (in Serbo-Croatian). Keywords: milk, rheology, viscosity, yoghurt.
490. Langley KR. (1984). Changes in viscosity of processed creams during storage at 5°C. *J. Dairy Res.* 51: 299-305. Keywords: cream, fat, processed cream, viscosity.
491. Langley KR, Green ML. (1989a). Compression and impact strength of gels, prepared from fractionated whey proteins, in relation to composition and microstructure. *J. Dairy Res.* 56: 275-284. Keywords: compression, fat, friction, gel, impact testing, lactoglobulin, Poisson's ratio, protein, rheology, whey.
492. Langley KR, Green ML. (1989b). Compression strength and fracture properties of model particulate food composites in relation to their microstructure and particle-matrix interaction. *J. Text. Studies.* 20: 191-207. Keywords: compression, deformation, enzyme, gel,

Structure and Rheology of Dairy Products: Bibliography

- Instron, Lloyd testing machine, protein, rheology, SEM, whey.
493. Langley KR, Millard D, Evans EW. (1986). Determination of tensile strength of gels prepared from fractionated whey proteins. *J. Dairy Res.* 53: 285-292. Keywords: chromatography, elasticity, electrophoresis, gel, Instron, lactalbumin, lactoglobulin, modulus, pH, protein, rheology, whey.
494. Langley KR, Temple DM. (1985). Viscosity of heated skim milk. *J. Dairy Res.* 52: 223-227. Keywords: milk, skim milk, viscometer, viscosity.
495. Larsson K, Friberg SE. (eds., 1990). *Food Emulsions*, 2nd ed. Marcel Dekker, New York. Book of 510 pages and 11 chapters. Keywords: emulsion, rheology, SEM, stability, TEM.
496. Law BA, Wigmore A. (1982). Accelerated cheese ripening with food grade proteinases. *J. Dairy Res.* 49: 137-146. Keywords: cheese, Instron, protease, ripening, TPA.
497. Lawrence RC, Creamer LK, Gilles J. (1987). Texture development during cheese ripening. *J. Dairy Sci.* 70: 1748-1760. Keywords: casein, cheese, moisture content, peptide, pH, proteolysis, rennet, ripening, texture.
498. Lawrence RC, Gilles J, Creamer LK. (1983). The relationship between cheese texture and flavour. *N. Z. J. Dairy Sci. Tech.* 18: 175-190. Keywords: cheese, Instron, texture.
499. Lawrence RC, Heap HA, Gilles J. (1984). A controlled approach to cheese technology. *J. Dairy Sci.* 67: 1632-1645. Keywords: Blue cheese, calcium, Camembert cheese, casein, Cheddar cheese, cheese, Cheshire cheese, chymosin, curd, enzyme, fat, Feta cheese, Gouda cheese, micelle, milk, moisture content, elasticity, pH, rennet, protein, ripening, salt, SEM, Swiss cheese, texture, ultrafiltration.
500. Lazaridis NH, Rosenau JR. (1980). Effects of emulsifying salts and carrageenan on rheological properties of cheese-like products prepared by direct acidification. *J. Food Sci.* 45: 595-597. Keywords: body, carrageenan, coagulation, cheese, emulsifier, imitation cheese, melting, phosphate, rheology, texture.
501. Le Bars D, Bergere JL. (1976). Measurement of cheese texture with a simple apparatus. *Le Lait* 56: 485-494. Keywords: Cheddar cheese, cheese, curd, deformation, Edam cheese, elasticity, Gouda cheese, modulus, rheology, ripening, texture, viscoelasticity, viscosity.
502. Lee BO, Kilbertus G, Alais C. (1981). Ultrastructural study on processed cheese. Effect of different parameters. *Milchwissenschaft* 36: 343-348. Keywords: butter, casein, cheese, critical point drying, Emmental cheese, fat, firmness, globule, lipid, melting, micelle, pH, phosphate, process cheese, protein, SEM, TEM.
503. Lee C-H, Imoto EM, Rha C. (1978). Evaluation of cheese texture. *J. Food Sci.* 43: 1600-1605. Keywords: American cheese, Brookfield, Camembert cheese, Cheddar cheese, cheese, compression, Cream cheese, Instron, melting, Mozzarella cheese, Muenster cheese, Swiss cheese, texture, viscosity.
504. Lee C-H, Rha C. (1977). Thickening of soy protein suspensions with calcium. *J. Text. Studies* 7: 441-449. Keywords: gel, protein, soy, thickening.
505. Lee C-H, Rha C. (1979). Application of scanning electron microscopy for the development of materials for food. *Scanning Electron Microsc.* 1979/III: 465-471. Keywords: cheese, protein, SEM.
506. Lee C-H, Son H-S. (1985). The textural properties of imitation cheese by response surface analysis. *Korean J. Food Sci. Technol.* 17: 361-370 (in Korean). Keywords: adhesiveness, casein, cheese, compression, fat, hardness, imitation cheese, melting, moisture content, phosphate, protein, soy, springiness, starch, texture, TPA.
507. Lee CS, McCauley I, Hartmann PE. (1983a). Light and electron microscopy of cells in pig colostrum, milk and involution secretion. *Acta Anatomica* 116: 126-135. Keywords: casein, cell, lipid, LM, milk, TEM.
508. Lee CS, McCauley I, Hartmann PE. (1983b). Light and electron microscopy of cells in pig colostrum, milk, and involution secretion. *Acta Anatomica* 117: 270-280. Keywords: casein, cell, lipid, LM, milk, TEM.
509. Lee K-W, Park E-S, Yoon S. (1989). Gelling characteristics of 7S and 11S soybean proteins and its relation to the texture of soybean curds and cheeses. *Korean J. Food Sci. Technol.* 21: 338-344 (in Korean). Keywords: calcium, cheese, chewiness, coagulation, cohesiveness, curd, gel, gumminess, hardness, Instron, lactic acid, protein, SEM, springiness, soy, texture, TPA.
510. Lee S-Y, Morr CV, Seo A. (1990). Comparison of milk-based and soymilk-based yoghurt. *J. Food Sci.* 55: 532-536. Keywords: Brookfield, Helipath, milk, soy, viscometer, viscosity, yoghurt.
511. Lee Y, Marshall RT. (1981). Microstructure and texture of process cheese, milk curds and caseinate curds containing native or boiled soy proteins. *J. Dairy Sci.* 64: 2311-2317. Keywords: casein, Cheddar cheese, cheese, coagulation, cohesiveness, compression, curd, deformation, glutaraldehyde, hardness, imitation cheese, Instron, micelle, milk, process cheese, protein, SEM, skim milk, soy, springiness, texture, TPA.
512. Lelievre J. (1977). Rigidity modulus as a factor influencing the syneresis of renneted milk gels. *J. Dairy Res.* 44: 611-614. Keywords: coagulation, cross linking, curd, fat, gel, milk, modulus, moisture content, pH, rennet, rigidity, skim milk, syneresis, whey.

513. Lencioni L, Pisanelli AM, Baldi E, Fiorentini R, Galoppini C. (1989). Sheep milk cheese made with the addition of alfalfa leaf protein concentrate: acidity and texture during ripening. *Lebensm. Wiss. u. Technol.* 22: 81-87. Keywords: alfalfa, cheese, chewiness, chromatography, cohesiveness, deformation, elasticity, firmness, fracturability, gumminess, hardness, HPLC, Instron, lactic acid, milk, modulus, pH, protein, rheology, ripening, sheep milk, texture, TPA.
514. Lewis MJ. (1986). Physical properties of dairy products. In: *Modern Dairy Technology*, Vol. 2, *Advances in Milk Products*. PK Robinson (ed.), Elsevier, London. 262-306. Keywords: cream, density, milk, rheology, texture, thixotropy, viscoelasticity, viscosity.
515. Liboff M, Goff HD, Haque Z, Jordan WK, Kinsella JE. (1988). Changes in the ultrastructure of emulsions as a result of electron microscopy preparation procedures. *Food Microstruc.* 7: 67-74. Keywords: agar, agarose, casein, critical point drying, crystal, emulsion, fat, globule, glutaraldehyde, ice cream, LM, membrane, osmium tetroxide, phosphate, SEM, TEM.
516. Li-Chan E, Nakai S. (1988). Rennin modification of bovine casein to simulate human casein composition: effect on acid clotting and hydrolysis by pepsin. *Can. Inst. Food Sci. Technol. J.* 21: 200-208. Keywords: casein, clotting, coagulation, digestion, electrophoresis, EM, human milk, milk, pepsin, pH, rennet, skim milk, turbidity.
517. Lin JCC, Jeon IJ, Roberts HA, Milliken GA. (1987). Effects of commercial food grade enzymes on proteolysis and textural changes in granular Cheddar cheese. *J. Food Sci.* 52: 620-625. Keywords: amino acid, Cheddar cheese, cheese, enzyme, fracturability, hardness, Instron, proteolysis, ripening, texture.
518. Lin SHC, Leong SL, Dewar RK, Bloomfield VA, Morr CV. (1972). Effect of calcium ion on the structure of native bovine casein micelles. *Biochem.* 11: 1818-1821. Keywords: calcium, casein, centrifugation, electrophoresis, light scattering, micelle, milk, skim milk.
519. Lindamood JB, Grooms DJ, Hansen PMT. (1989). Effect of hydrolysis of lactose and sucrose on firmness of ice cream. *Food Hydrocolloids* 3: 379-388. Keywords: compression, firmness, hardness, ice cream, Instron, lactose, melting.
520. Lowrie RJ, Kalab M, Nichols D. (1982). Curd granule and milled curd junction patterns in Cheddar cheese made by traditional and mechanized processes. *J. Dairy Sci.* 65: 1122-1129. Keywords: Cheddar cheese, cheese, curd, curd granule junction, texture.
521. Lucisano M, Casiraghi E, Pompei C. (1989). Optimization of an instrumental method for the evaluation of spreadability. *J. Text. Studies* 20: 301-315. Keywords: hardness, penetrometer, spreadability.
522. Lucisano M, Pompei C, Casiraghi E. (1987). Texture evaluation of some Italian cheeses by instrumental texture profile analysis. *J. Food Qual.* 10: 73-89. Keywords: cheese, Instron, Italian cheese, texture, TPA.
523. Luyten H, van Vliet T, Walstra P. (1987). Note on the shortness of the consistency of Dutch-type cheese. *Neth. Milk Dairy J.* 41: 285-288. Keywords: cheese, consistency, deformation, Dutch-type cheese, fracturability, Gouda cheese, milk, pH, texture.
524. MacGibbon AKH, McLennan WD. (1987). Hardness of New Zealand patted butter: seasonal and regional variations. *N. Z. J. Dairy Sci. Technol.* 22: 143-156. Keywords: butter, extrusion, fat, FIRA-NIRD extruder, hardness.
525. Mackie DA, Emmons DB, Beckett DC, Elsaesser JL. (1989). Sensory and instrumental analysis of Cottage cheese firmness. *Can. Inst. Food Sci. Technol. J.* 22: 456-459. Keywords: cheese, Cottage cheese, curd, deformation, firmness.
526. Mackie DA, Hagborg DW, Beckett DC, Emmons DB. (1990). A computerized curd firmness meter. *J. Dairy Sci.* 73: 1648-1652. Keywords: Cheddar cheese, cheese, Cherry-Burrell meter, Cottage cheese, curd, fat, firmness, gel, milk.
527. Mair-Waldburg H. (1974). *Handbook on Cheese*. Volkswirtschaftl. Verlag GmbH, Kempten (Allgau) Fed. Rep. of Germany (in German) Keywords: cheese.
528. Mangino ME. (1984). Physicochemical aspects of whey protein functionality. *J. Dairy Sci.* 67: 2711-3722. Keywords: denaturation, emulsifier, fat, foam, globule, gel, LM, pH, protein, stability, whey.
529. Mangino ME, Freeman NW. (1981). Statistically reproducible evaluation of size of casein micelles in raw and processed milks. *J. Dairy Sci.* 64: 2025-2030. Keywords: casein, glutaraldehyde, micelle, milk, TEM.
530. Marcos A, Alcala M, Leon F, Fernandez-Salgueiro J, Esteban MA. (1981). Water activity and chemical composition of cheese. *J. Dairy Sci.* 64: 622-626. Keywords: cheese, moisture content, pH, salt, water activity.
531. Marshall RJ. (1986). Increasing cheese yields by high heat treatment of milk. *J. Dairy Res.* 53: 313-322. Keywords: calcium, casein, cheese, Cheshire cheese, curd, firmness, milk, moisture content, protein, rennet, TEM, texture, Ultra-Viscoson, whey.
532. Marshall RJ. (1990). Composition, structure, rheological properties and sensory texture of processed cheese analogues. *J. Sci. Food Agric.* 50: 237-252. Keywords: casein, cheese, compression, cymicroscopy, deformation, elasticity, fat, image analysis, imitation cheese, Instron, LM, milk, milk powder, modulus,

Structure and Rheology of Dairy Products: Bibliography

- moisture content, pH, process cheese, protein, rheology, SEM, texture, Tween, TEM.
533. Marshall RJ, Hatfield DS, Green ML. (1982). Assessment of two instruments for continuous measurement of the curd-firming of renneted milk. *J. Dairy Res.* 49: 127-135. Keywords: calcium, casein, Cheddar cheese, cheese, clotting, coagulation, curd, firmness, milk, pH, rennet, skim milk, viscometer.
534. Marshall VM, Cole WM, Brooker BE. (1984). Observations on the structure of Kefir grains and the distribution of microflora. *J. Appl. Bacteriol.* 57: 491-497. Keywords: carbohydrate, glutaraldehyde, Kefir, LM, milk, osmium tetroxide, SEM, TEM.
535. Martin RW Jr. (1989). Electron microscopic localization of cholesterol in bovine milk fat globules. *Food Microstruc.* 8: 3-9. Keywords: cholesterol, cream, fat, filipin, freeze fracture, globule, membrane, milk, TEM, triglyceride.
536. Martinez E, Hough G, Contarini A. (1990). Sandiness prevention in dulce de leche by seeding with lactose microcrystals. *J. Dairy Sci.* 73: 612-616. Keywords: crystal, dulce de leche, lactose, sandiness.
537. Martinou-Voulasiki IS, Zerfididis GK. (1990). Effect of some stabilizers on textural and sensory characteristics of yogurt ice cream from sheep's milk. *J. Food Sci.* 55: 703-707. Keywords: Brookfield, gum, ice cream, lactose, melting, sheep milk, viscometer, viscosity, yoghurt.
538. Masi P. (1989). Characterization of history-dependent stress relaxation behaviour of cheeses. *J. Text. Studies* 19: 373-388. Keywords: cheese, rheology, texture.
539. Masi P, Acieno D, Addeo F. (1988). Measuring milk gelification by means of an Instron universal testing machine operating in dynamic mode. *J. Text. Studies* 19: 161-170. Keywords: coagulation, deformation, gel, goat milk, Instron, milk, viscoelasticity.
540. Masi P, Addeo F. (1986). An examination of some mechanical properties of a group of Italian cheeses and their relation to structure and conditions of manufacture. *J. Food Engr.* 5: 217-229. Keywords: cheese, compression, Instron, Italian cheese, Pasta filata cheese, rheology.
541. Mather IH, Weber K, Keenan TW. (1977). Membranes of mammary gland. XII. Loosely associated proteins and compositional heterogeneity of bovine milk fat globule membrane. *J. Dairy Sci.* 60: 394-402. Keywords: centrifugation, electrophoresis, fat, globule, lipid, membrane, milk, protein.
542. Mayes JJ, Sutherland BJ. (1989). Further notes on coagulum firmness and yield in Cheddar cheese manufacture. *Aust. J. Dairy Technol.* 44: 47-48. Keywords: Cheddar cheese, cheese, coagulation, curd, firmness.
543. McGann TCA, Buchheim W, Kearney RD, Richardson T. (1983). Composition and ultrastructure of calcium phosphate-citrate complexes in bovine milk systems. *Biochim. Biophys. Acta* 760: 415-420. Keywords: casein, citrate, colloid, EM, micelle, milk, phosphate, ultrafiltration.
544. McGann TCA, Donnelly WJ, Kearney RD, Buchheim W. (1980). Composition and size distribution of bovine casein micelles. *Biochim. Biophys. Acta* 630: 261-270. Keywords: casein, chromatography, freeze fracture, glutaraldehyde, micelle, milk, skim milk, TEM.
545. McMahon DJ, Brown RJ. (1984). Composition, structure, and integrity of casein micelles: A review. *J. Dairy Sci.* 67: 499-512. Keywords: casein, colloid, micelle, milk, phosphate, stability.
546. McMaster TJ, Smith AC, Richmond P. (1988). Physical and rheological characterisation of a confectionery product. *J. Text. Studies* 18: 319-334. Keywords: capillary rheometry, compression, confection, Instron, milk, rheology, SEM.
547. McPherson AV, Kitchen BJ. (1983). Reviews of the progress of dairy science: The bovine milk fat globule membrane - its formation, composition, structure and behaviour in milk and dairy products. *J. Dairy Res.* 50: 107-133. Keywords: fat, globule, membrane, milk.
548. Mehanna NM. (1988). A scanning electron microscopical study on the microstructure of Domiati cheese. *Pakistan J. Sci. Ind. Res.* 31: 756-759. Keywords: buffalo milk, calcium, casein, cheese, crystal, Domiati cheese, lactate, micelle, milk, SEM, ultrafiltration.
549. Meyer A. (1973). Process Cheese Manufacture. 1st edition, Food Trade Press Ltd., London. A book of 330 pages. Keywords: cheese, process cheese.
550. Mitchell JR. (1984). Rheological techniques. Chapter 4 in: Food Analysis. Principles and Techniques. Vol. 1. Physical Characterization. DW Gruenwedel and JR Whittaker (eds.), Marcel Dekker, New York. 151-220. Keywords: butter, cheese, creep, deformation, dynamic testing, elasticity, gel, ice cream, modulus, pseudoplasticity, rheology, viscoelasticity, viscometer, viscosity.
551. Modler HW, Kalab M. (1983). Microstructure of yoghurt stabilized with milk proteins. *J. Dairy Sci.* 66: 430-437. Keywords: casein, gel, gelatin, micelle, milk, protein, skim milk, stability, yoghurt, whey.
552. Modler HW, Yiu SH, Bollinger UK, Kalab M. (1989). Grittiness in pasteurized cheese spread: a microscopic study. *Food Microstruc.* 8: 201-210. Keywords: cheese, cheese spread, coagulation, curd, grittiness, milk, pasteurization, protein.
553. Mohamed MO, Morris HA. (1987). Textural and microstructural properties of rennet-induced milk co-

- agulation as affected by the addition of soy protein isolate. *J. Text. Studies* 18: 137-155. Keywords: agar, casein, coagulation, firmness, Instron, micelle, milk, protein, rennet, SEM, soy, syneresis, texture.
554. Mohammad KS, Fox PF. (1987). Heat induced microstructural changes in casein micelles before and after heat coagulation. *N. Z. J. Dairy Sci. Technol.* 22: 191-203. Keywords: casein, coagulation, micelle, TEM.
555. Mohsenin NN, Morrow CT. (1968). Measurement of viscoelastic parameters in food materials. In: *Rheology and Texture of Foodstuffs*. S. C. I. Monograph No. 17. Soc. Chem. Ind., London, 50-73. Keywords: Cheddar cheese, cheese, creep, elasticity, margarine, modulus, viscoelasticity.
556. Molander E, Kristiansen KR, Werner H. (1990). Instrumental and sensory measurement of Brie texture. *Milchwissenschaft* 45: 589-593. Keywords: Brie cheese, cheese, compression, elasticity, penetrometer, pH, proteolysis, rheology, ripening, texture.
557. Molska I, Kocon J, Zmarlicki S. (1980). Electron microscopic studies on structure and microflora of Kefir grains. *Acta Alim. Polon.* 6: 145-154. Keywords: glutaraldehyde, Kefir, lactic acid bacteria, osmium tetroxide, SEM, TEM.
558. Moore PL, Richter RL, Dill CW. (1986). Composition, yield, texture and sensory characteristics of Mexican white cheese. *J. Dairy Sci.* 69: 855-862. Keywords: adhesiveness, brittleness, cheese, chewiness, cohesiveness, compression, fat, gumminess, hardness, Instron, Mexican white cheese, springiness, texture, TPA.
559. Morr CV. (1969). Protein aggregation in conventional and ultra high temperature heated skim milk. *J. Dairy Sci.* 52: 1174-1180. Keywords: casein, centrifugation, denaturation, electrophoresis, milk, protein, skim milk, whey.
560. Morr CV. (1979). Conformation and functionality of milk proteins. In: *Functionality and Protein Structure*. ACS Symposium Series 92. A. Pour-El (ed.), Am. Chem. Soc. Washington, D.C., 65-79. Keywords: amino acid, casein, emulsion, lactoglobulin, lactoglobulin, micelle, milk, protein, whey.
561. Morr CV, Foegeding EA. (1990). Composition and functionality of whey and milk protein concentrates and isolates: a status report. *Food Technol.* 44: 100-112. Keywords: chromatography, gel, electrophoresis, HPLC, Instron, milk, protein, rheology, solubility, whey.
562. Morris HA, Holt C, Brooker BE, Banks JM, Manson W. (1988). Inorganic constituents of cheese: analysis of juice from a one-month-old Cheddar cheese and the use of light and electron microscopy to characterize the crystalline phases. *J. Dairy Res.* 55: 255-268.
- Keywords: amino acid, calcium, Cheddar cheese, cheese, chromatography, citrate, crystal, cryomicroscopy, lactate, LM, phosphate, ripening, SEM, X-ray microanalysis.
563. Mortensen BK. (1983). Physical properties and modification of milk fat. In: *Developments in Dairy Chemistry*. 2. PF Fox (ed.), Appl. Sci. Publ., London, 159-194. Keywords: fat, milk.
564. Mortensen BK, Danmark H. (1981). Firmness of butter measured with a cone penetrometer. *Milchwissenschaft* 36: 393-395. Keywords: butter, consistency, penetrometer.
565. Mortensen BK, Danmark H. (1982). Consistency characteristics of butter. *Milchwissenschaft* 37: 530-532. Keywords: butter, consistency, cream, deformation, penetrometer, rheology, sectilometer, spreadability, viscosity.
566. Moskowitz HR. (ed., 1987). *Food Texture: Instrumental and Sensory Measurement*. Marcel Dekker, New York. A book of 335 pages and 12 chapters. Keywords: compression, deformation, elasticity, rheology, SEM, TEM, texture, viscoelasticity, viscosity.
567. Mottar J, Bassier A, Joniau M, Baert J. (1989) Effect of heat induced association of whey proteins and casein micelles on yoghurt texture. *J. Dairy Sci.* 72: 2247-2256. Keywords: casein, centrifugation, encapsulation, glutaraldehyde, lactalbumin, lactoglobulin, micelle, milk, protein, rheology, smoothness, TEM, texture, Tween, viscosity, yoghurt, whey.
568. Mpaganas M, Hardy J. (1986). Effect of salting on some rheological properties of fresh Camembert cheese as measured by uniaxial compression. *Milchwissenschaft* 41: 210-213. Keywords: Camembert cheese, cheese, compression, deformation, elasticity, firmness, Instron, rheology, texture, TPA.
569. Mulder H. (1953). The consistency of butter. In: *Foodstuffs*: Their plasticity, fluidity, and consistency. GW Scott Blair (ed.), Interscience, New York, 91-123. Keywords: butter, consistency, rheology.
570. Mulder H, Walstra P. (1974). *The Milk Fat Globule. Emulsion Science as Applied to Milk Products and Comparable Foods*. Commonwealth Agric. Bureaux, Farnham Royal, Bucks., England. A book of 296 pp. and 14 chapters. Keywords: butter, casein, centrifugation, cream, crystal, emulsion, fat, freeze fracture, globule, LM, membrane, micelle, milk, TEM.
571. Muller HR. (1964). Electron microscopic investigations of milk and milk products. 1. Examination of the structure of milk powders. *Milchwissenschaft* 19: 345-356 (in German). Keywords: butterfat, casein, fat, globule, lactose, lipid, membrane, micelle, milk, milk powder, moisture content, osmium tetroxide, protein, salt, TEM.
572. Musselwhite PR, Walker DA. (1971). The ef-

- fect of the colloidal state of the emulsion on ice cream structure. *J. Text. Studies* 2: 110-116. Keywords: colloid, emulsion, fat, gelatin, ice cream, interface, melting, stability.
573. Nakai S, Li-Chan E. (1987). Effect of clotting in stomachs of infants on protein digestibility of milk. *Food Microstruc.* 6: 161-170. Keywords: casein, chymosin, clotting, digestion, human milk, LM, milk, pepsin, pH, protein, proteolysis, rennet, SEM, TEM.
574. Nanni M, Annibaldi S. (1982). Microstructure of the Parmigiano-Reggiano cheese: curd granules. *Scienza e Tecnica Lattiero-Casearia* 33: 81-94 (in Italian). Keywords: casein, cheese, curd, granule, Parmigiano-Reggiano cheese, SEM.
575. Neve H, Teuber M. (1989). Scanning electron microscopy of the surface microflora of ripened soft cheeses. *Kieler Milchwirtschaftliche Forschungsberichte*, 41 (1): 3-13. Keywords: cheese, critical point drying, curd, glutaraldehyde, lactic acid bacteria, Limburger cheese, osmium tetroxide, pH, proteolysis, Romadur cheese, SEM.
576. Ney KH. (1985). Rheology of food. Anisotropy in Cheddar cheese. *Gordian*, 85 (9): 172, 174 (in German). Keywords: Cheddar cheese, cheese, rheology.
577. Ng-Kwai-Hang KF, Politis I, Cue RI, Marziali AS. (1989). Correlations between coagulation properties of milk and cheese yielding capacity and cheese composition. *Can. Inst. Food Sci. Technol. J.* 22: 291-294. Keywords: casein, Cheddar cheese, cheese, coagulation, fat, firmness, lactose, milk, moisture content, protein, whey.
578. Nickerson SC, Akers RM. (1984). Biochemical and ultrastructural aspects of milk synthesis and secretion. *Int. J. Biochem.* 16: 855-865. Keywords: milk.
579. Nickerson TA. (1962). Lactose crystallization in ice cream. IV. Factors responsible for reduced incidence of sandiness. *J. Dairy Sci.* 45: 354-360. Keywords: crystal, gum, ice cream, lactose, sandiness, stabilizer.
580. Nishijima J, Inagaki T. (1987). Thixotropic behavior of soft yoghurt. *Bull. Nippon Vet. Zootech. Coll.* (No. 36): 98-102 (in Japanese). Keywords: fat, rheology, thixotropy, viscometer, viscosity, yoghurt.
581. Noda K, Endo M, Takahashi T. (1986). The effect of calcium on the viscosity of sweetened condensed milk. *J. Jap. Soc. Food Sci. Technol.* 33: 572-578 (in Japanese). Keywords: calcium, centrifugation, milk, phosphate, skim milk, viscosity.
582. Noda M. (1986a). Microstructure and physical properties of whipping cream. *Yukagaku*, 35: 1046-1051 (in Japanese). Keywords: cream, creep, cryomicroscopy, elasticity, fat, globule, modulus, porosity, viscosity, whipped cream.
583. Noda M. (1986b). Structure and texture of whipped cream. II. *New Food Ind.* 28 (12): 65-74 (in Japanese). Keywords: bubble, cream, cryomicroscopy, fat, fatty acid, foam, globule, melting, membrane, modulus, rheology, SEM, TEM, texture, viscosity, whipped cream.
584. Noda M, Shiinoki Y. (1986). Microstructure and rheological behavior of whipping cream. *J. Text. Studies* 17: 189-204. Keywords: bubble, cream, creep, cryomicroscopy, fat, foam, membrane, modulus, porosity, rheology, SEM, viscosity, whipped cream.
585. Nolan EJ. (1987). Stress relaxation of stored stirred cheddar curd. *J. Text. Studies* 18: 273-280. Keywords: Cheddar cheese, cheese, compression, curd, Instron, rheology, ripening, texture.
586. Nolan EJ, Holsinger VH, Shieh JJ. (1989). Dynamic rheological properties of natural and imitation Mozzarella. *J. Text. Studies* 20: 179-189. Keywords: casein, cheese, dynamic testing, imitation cheese, Mozzarella cheese, rheology, Rheometrics, viscoelasticity, viscosity.
587. Noomen A. (1977a). Noordhollandse Meshanger cheese: a model for research on cheese ripening. 2. The ripening of the cheese. *Neth. Milk Dairy J.* 31: 75-102. Keywords: body, cheese, consistency, enzyme, lactic acid bacteria, Meshanger cheese, moisture content, pH, proteolysis, rennet, ripening.
588. Noomen A. (1977b). Noordhollandse Meshanger cheese: a model for research on cheese ripening. 3. Manufacture of the cheese on a small scale. *Neth. Milk Dairy J.* 31: 103-108. Keywords: cheese, Meshanger cheese, lactic acid bacteria, milk, moisture content, rennet, ripening.
589. Ochi T, Matsumoto N, Hatakeyama E. (1983). Comparison of the structure of various cheese products by scanning electron microscopy. *Nippon Nogeikagaku Kaishi* 57: 431-437 (in Japanese). Keywords: cheese, fat, Inner Mongolian cheese, Nepalese cheese, Oriental cheese, protein, SEM.
590. Ogden LV, Walstra P, Morris HA. (1976). Homogenization-induced clustering of fat globules in cream and model systems. *J. Dairy Sci.* 59: 1727-1737. Keywords: casein, coagulation, cream, fat, globule, glutaraldehyde, interface, LM, micelle, skim milk.
591. Ohashi T, Nagai S, Masaoka K, Haga S, Yamauchi K, Olson NF. (1983). Physical properties and microstructure of Cream cheese. *Nippon Shokuhin Kogyo Gakkaishi* 30: 303-307. Keywords: casein, cheese, cream, Cream cheese, fat, micelle, milk, moisture content, rheology, SEM, skim milk.
592. Olson NF, Bottazzi V. (1977). Rheology of milk gels formed by milk-clotting enzymes. *J. Food Sci.* 42: 669-673. Keywords: calcium, cheese, clotting, enzyme, gel, milk, modulus, pepsin, pH, rheology,

thrombelastograph.

593. Olson NF, Johnson ME. (1990). Light cheese products: characteristics and economics. *Food Technol.* 44: 93-96. Keywords: adhesiveness, casein, Cheddar cheese, cheese, crystal, elasticity, enzyme, fat, firmness, hardness, melting, moisture content, protein, viscosity, elasticity.

594. Olthoff LW, Van der Bilt A, De Boer A, Bosman F. (1986). Comparison of force-deformation characteristics of artificial and several natural foods for chewing experiments. *J. Text. Studies* 17: 275-289. Keywords: cheese, deformation, Gouda cheese, texture.

595. Omar MM. (1987a). Microstructure and chemical changes in Domiati cheese made from ultrafiltered milk. *Food Chem.* 25: 183-196. Keywords: amino acid, casein, cheese, chromatography, consistency, Domiati cheese, fat, fatty acid, freeze fracture, globule, micelle, milk, protein, rennet, TEM, texture, ultrafiltration, whey.

596. Omar MM. (1987b). Microstructure and composition of soft Brine cheese produced from reconstituted milk by ultrafiltration. *Egyptian J. Dairy Sci.* 15: 123-133. Keywords: amino acid, body, Brine cheese, casein, cheese, fat, fatty acid, globule, micelle, milk, moisture content, protein, ripening, TEM, texture, ultrafiltration, whey.

597. Omar MM. (1988). Composition and microstructure of Domiati cheese made from reconstituted UF milk. *Food Chem.* 28: 85-95. Keywords: amino acid, casein, cheese, clotting, coagulation, Domiati cheese, fat, freeze fracture, globule, micelle, milk, protein, TEM, texture, ultrafiltration, whey.

598. Omar MM, Buchheim W. (1983). Composition and microstructure of soft Brine cheese made from instant whole milk powder. *Food Microstruc.* 2: 43-50. Keywords: Brine cheese, cheese, EM, freeze fracture, milk, milk powder, protein, ripening, soft cheese.

599. Omar MM, Chojnowski W, Smitana Z. (1986). Quality and microstructure of "Solan" cheese produced by ultrafiltration. *Egyptian J. Dairy Sci.* 4: 43-53. Keywords: amino acid, casein, cheese, fat, glutaraldehyde, milk, moisture content, osmium tetroxide, pH, protein, proteolysis, retentate, Solan cheese, TEM, ultrafiltration, whey.

600. Omar MM, El-Shibiny S. (1985). Composition and microstructure of Domiati cheese as affected by lactase. *Egyptian J. Dairy Sci.* 13: 33-39. Keywords: amino acid, casein, cheese, curd, Domiati cheese, enzyme, glutaraldehyde, milk, osmium tetroxide, TEM.

601. O'Neil JM, Kleyn DH, Hare LB. (1979). Consistency and compositional characteristics of commercial yogurts. *J. Dairy Sci.* 62: 1032-1036. Keywords: Brookfield, consistency, curd, Curd-O-Meter, fat, Helipath, pH, protein, viscometer, viscosity,

yoghurt.

602. Oortwijn H, Walstra P, Mulder H. (1977). The membranes of recombinant fat globules. 1. Electron microscopy. *Neth. Milk Dairy J.* 31: 134-147. Keywords: casein, fat, globule, membrane, micelle, protein, TEM, Tween.

603. Paquet A, Kalab M. (1988). Amino acid composition and structure of cheese baked as a pizza ingredient in conventional and microwave ovens. *Food Microstruc.* 7: 93-103. Keywords: amino acid, Cheddar cheese, cheese, curd, curd granule junction, EM, fat, globule, melting, microwave, Mozzarella cheese, pizza, process cheese, stretchability.

604. Park J, Rosenau JR, Peleg M. (1984). Comparison of four procedures of cheese meltability evaluation. *J. Food Sci.* 49: 1158-1162, 1170. Keywords: cheese, melting.

605. Parnell-Clunies EM, Irvine DM, Bullock DH. (1985). Textural characteristics of Queso Blanco. *J. Dairy Sci.* 68: 789-793. Keywords: cheese, coagulation, compression, curd, hardness, Instron, Queso Blanco cheese, rheology, texture.

606. Parnell-Clunies EM, Kakuda Y, deMan JM. (1986). Influence of heat treatment of milk on the flow properties of yoghurt. *J. Food Sci.* 51: 1459-1462. Keywords: consistency, Haake, milk, rheology, viscometer, viscosity, yoghurt.

607. Parnell-Clunies EM, Kakuda Y, deMan JM, Cazzola F. (1988). Gelation profiles of yoghurt as affected by heat treatment of milk. *J. Dairy Sci.* 71: 582-588. Keywords: agar, calcium, casein, gel, globule, glutaraldehyde, micelle, milk, Nametre, osmium tetroxide, pH, TEM, viscometer, viscosity, yoghurt.

608. Parnell-Clunies EM, Kakuda Y, Humphrey R. (1986). Electron dense granules in yoghurt: characterization by X-ray microanalysis. *Food Microstruc.* 5: 295-302. Keywords: glutaraldehyde, granule, osmium tetroxide, yoghurt, X-ray microanalysis.

609. Parnell-Clunies EM, Kakuda Y, Mullen K, Arnott DR, deMan JM. (1986). Physical properties of yoghurt: a comparison of vat versus continuous heating systems of milk. *J. Dairy Sci.* 69: 3594-2603. Keywords: centrifugation, denaturation, firmness, Haake, milk, moisture content, protein, viscometer, viscosity, whey, yoghurt.

610. Parnell-Clunies EM, Kakuda Y, Smith AK. (1987). Moisture of yoghurt as affected by heat treatment milk. *Milchwissenschaft* 42: 413-417. Keywords: casein, critical point drying, fat, freeze fracture, glutaraldehyde, granule, milk, osmium tetroxide, protein, SEM, TEM, yoghurt, water-holding.

611. Patel AA, Gupta SK. (1988). Studies on a soy-based low fat spread. *J. Food Sci.* 53: 455-459. Keywords: butter, fat, milk, milk powder, penetrometer,

- skim milk, soy, spreadability, viscometer, viscosity.
612. Patel AA, Gupta SK. (1989). Rheological studies on a protein-enriched low-fat spread. *J. Food Sci. Technol. (India)* 26: 36-40. Keywords: fat, firmness, penetrometer, protein, rheology, soy, spreadability, viscometer, viscosity.
613. Pauletti MS, Venier A, Sabbag N, Stechina D. (1988). Rheological characterization of dulce de leche, a confectionery dairy product. *J. Dairy Sci.* 73: 601-603. Keywords: Casson model, confection, dulce de leche, Haake, Herschel-Bulkley model.
614. Pauletti MS, Venier A, Stechina D, Sabbag N, Castelao E. (1988). Rheological characterization of dulce de leche. *Rev. Agroquim. Tecnol. Aliment.* 28(2): 303-307 (in Spanish). Keywords: dulce de leche, Haake, milk, rheology, texture, thixotropy, viscometer, viscosity.
615. Paulsson M, Dejmek P, van Vliet T. (1990). Rheological properties of heat-induced β -lactoglobulin gels. *J. Dairy Sci.* 73: 45-53. Keywords: dynamic testing, gel, lactoglobulin, modulus, pH, rheology, viscoelasticity.
616. Payens TAJ. (1966). Association of caseins and their possible relation to structure of the casein micelle. *J. Dairy Sci.* 49: 1317-1324. Keywords: calcium, casein, centrifugation, chromatography, coagulation, electrophoresis, glycomacropeptide, micelle, milk, protein, rennet, TEM.
617. Payens TAJ. (1979). Casein micelles: the colloid chemical approach. *J. Dairy Res.* 46: 291-306. Keywords: casein, clotting, enzyme, micelle, stability, turbidity.
618. Peleg M. (1976). Considerations of a general rheological model for the mechanical behavior of viscoelastic solid food materials. *J. Text. Studies* 7: 243-255. Keywords: cheese, rheology, viscoelasticity.
619. Peleg M. (1979). Characterization of the stress relaxation curves of solid foods. *J. Food Sci.* 44: 277-281. Keywords: Cheddar cheese, cheese, compression, Instron.
620. Peleg M. (1980). Linearization of relaxation and creep curves of solid biological materials. *J. Rheol.* 24: 451-463. Keywords: creep, rheology.
621. Peleg M. (1980). Theoretical analysis of the relationship between mechanical hardness and its sensory assessment. *J. Food Sci.* 45: 1156-1160. Keywords: hardness, rheology.
622. Peleg M, Bagley EB. (eds., 1983). *Physical Properties of Foods*. AVI Pub. Co., Westport, CT. A book of 532 pages and 17 chapters. Keywords: agar, butter, buttermilk, casein, cheese, cream, crystal, deformation, DSC, dynamic testing, emulsion, fat, LM, micelle, milk, modulus, process cheese, rheology, SEM, soy, starch, TEM, whipped cream.
623. Peleg M, Normand MD. (1983). Comparison of two methods for stress relaxation data presentation of solid foods. *Reol. Acta* 22: 108-113. Keywords: Cheddar cheese, cheese, rheology.
624. Perry CA, Carroad PA. (1980a). Influence of acid related manufacturing practices on properties of Cottage cheese curd. *J. Food Sci.* 45: 794-797. Keywords: cheese, Cottage cheese, curd, firmness, Instron, pH, Ottawa texture measuring system, texture.
625. Perry CA, Carroad PA. (1980b). Instrument for texture of small curd Cottage cheese and comparison to sensory evaluation. *J. Food Sci.* 45: 798-801. Keywords: cheese, Cottage cheese, curd, firmness, Instron, Ottawa texture measuring system, texture.
626. Phipps LW. (1983). Effects of fat concentration on the homogenization of cream. *J. Dairy Res.* 50: 91-96. Keywords: cream, fat, globule, milk, protein.
627. Picque D, Corriue G. (1988). New instrument for on-line viscosity measurement of fermentation media. *Biotech. Bioengr.* 31: 19-23. Keywords: milk, viscosity, xanthan.
628. Pinthong R, Macrae R, Dick J. (1980). The development of a soya-based yoghurt. III. Analysis of oligosaccharides. *J. Food Technol.* 15: 661-667. Keywords: chromatography, HPLC, lactic acid bacteria, milk, polysaccharide, soy, sugar, yoghurt.
629. Pinthong R, Macrae R, Rothwell J. (1980). The development of a soya-based yoghurt. I. Acid production by lactic acid bacteria. *J. Food Technol.* 15: 647-652. Keywords: fat, lactic acid bacteria, milk, protein, soy, sugar, yoghurt.
630. Pinthong R, Macrae R, Rothwell J. (1980). The development of a soya-based yoghurt. II. Sensory evaluation and analysis of volatiles. *J. Food Technol.* 15: 653-659. Keywords: enzyme, lactic acid bacteria, milk, soy, sugar.
631. Pompei C, Casiraghi E, Lucisano M, Zanoni B. (1988). Development of two imitative methods of spreadability evaluation and comparison with penetration tests. *J. Food Sci.* 53: 597-602. Keywords: butter, cheese, Instron, penetrometer, process cheese, rheology, spreadability.
632. Pompei C, Lucisano M, Casiraghi E. (1987). Texture evaluation of Provolone cheeses with two different ripening times. *Lebensmittel-Wissenschaft und -Technologie* 20: 251-258. Keywords: cheese, chewiness, cohesiveness, compression, deformation, fat, gumminess, hardness, Provolone cheese, ripening, springiness, texture.
633. Pompei C, Lucisano M, Zanoni B, Casiraghi E. (1988). Evaluation of spreadability of food products by penetration tests and panel scores. *J. Food Sci.* 53: 592-596. Keywords: cheese, penetrometer, process cheese, spreadability.

634. Popplewell LM, Rosenau JR. (1989). Incorporation of milk proteins harvested by direct acidification into process cheese products. *J. Food Proc. Engr.* 11: 203-220. Keywords: casein, cheese, creep, curd, emulsifier, Instron, lactalbumin, melting, milk, moisture content, process cheese, protein, rheology.
635. Pouliot Y, Britten M, Latreille B. (1990). Effect of high-pressure homogenization on a sterilized infant formula: microstructure and age gelation. *Food Struc.* 9: 1-9. Keywords: Brookfield, casein, fat, gel, globule, LM, pH, protein, TEM, viscometer, viscosity, whey.
636. Pour-El A. (ed., 1979). Functionality and Protein Structure. ACS Symposium Series 92. Am. Chem. Soc. Washington, D.C. A book of 243 pages and 12 chapters. Keywords: emulsifier, enzyme, gel, microwave, milk, protein, soy, wheat.
637. Precht D. (1988a). Electron microscopic investigations of the influence of temperature and feeding conditions on the crystal structure of fat globules in cream. *Fett Wissenschaft Technologie* 90: 300-308. Keywords: cream, crystal, EM, fat, globule, ice cream, milk, ripening.
638. Precht D. (1988b). Fat crystal structure in cream and butter. In: Crystallization and Polymorphism of Fats and Fatty Products. N Garti and K Sato (eds.), Marcel Dekker, New York. 305-361. Keywords: bubble, butter, casein, consistency, cream, crystal, fat, foam, freeze fracture, globule, margarine, melting, milk, protein, TEM, thixotropy, water, whipped cream.
639. Precht D, Buchheim W. (1979). Electron microscopic studies on the physical structure of spreadable fats. 1. The microstructure of fat globules in butter. *Milchwissenschaft* 34: 745-749 (in German) Keywords: butter, EM, fat, globule, spreadability.
640. Precht D, Buchheim W. (1980a). Electron microscopic studies on the physical structure of spreadable fats. 2. The microstructure of the interglobular fat phase in butter. *Milchwissenschaft* 35: 393-398 (in German) Keywords: butter, crystal, fat, freeze fracture, melting, spreadability, TEM.
641. Precht D, Buchheim W. (1980b). Electron microscopic studies on the physical structure of spreadable fats. 3. The aqueous phase in butter. *Milchwissenschaft* 35: 684-687, 690 (in German) Keywords: butter, crystal, fat, globule, spreadability, TEM, water.
642. Precht D, Peters K-H. (1981a). The consistency of butter. I. Electron microscopic studies on the influence of different cream ripening temperatures on the frequency of definite fat globule types in cream. *Milchwissenschaft* 36: 616-620 (in German) Keywords: butter, consistency, cream, EM, fat, globule, ripening.
643. Precht D, Peters K-H. (1981b). The consistency of butter. II. Relationships between the submicroscopic structures of cream fat globules as well as butter and the consistency in dependence on special physical methods of cream ripening. *Milchwissenschaft* 36: 673-676 (in German) Keywords: butter, consistency, cream, fat, globule, ripening.
644. Precht D, Buchheim W. (1979). Electron microscopic studies on the physical structure of spreadable fats. I. The microstructure of fat globules in butter. *Milchwissenschaft* 34: 745-749 (in German) Keywords: butter, cream, crystal, fat, freeze fracture, globule, spreadability, TEM.
645. Prentice JH. (1968). Measurement of some flow properties of market cream. In: Rheology and Texture of Foodstuffs, S.C.I. Monograph No. 27, Soc. of Chem. Ind., London, 265-279. Keywords: cream, creep, elasticity, fat, globule, rheology, viscometer, viscosity.
646. Prentice JH. (1972). Rheology and texture of dairy products. *J. Text. Studies* 3: 415-458. Keywords: butter, cheese, cream, fat, globule, hardness, milk, penetrometer, power law model, rennet, rheology, rind, spreadability, texture, viscoelasticity, viscometer, viscosity.
647. Prentice JH. (1979). Recent developments in the rheology of dairy products and some present day problems. In: Food Texture and Rheology. P Sherman (ed.), Academic Press, New York. 299-344. Keywords: casein, Cheddar cheese, cheese, Cheshire cheese, compression, deformation, elasticity, Emmental cheese, firmness, Gloucester cheese, Leicester cheese, Meshanger cheese, modulus, moisture content, Mozzarella cheese, Muenster cheese, penetrometer, protein, rheology, viscoelasticity, viscosity.
648. Prentice JH. (1984). Measurements in the Rheology of Foodstuffs. Elsevier, London. A book of 191 pages and 13 chapters. Keywords: cheese, chocolate, compression, creep, elasticity, fat, rheology, viscoelasticity, viscometer, viscosity.
649. Prentice JH. (1987). Cheese Rheology. In: Cheese: Chemistry, Physics and Microbiology. Volume 1. General Aspects. PF Fox (ed.), Elsevier, London. 299-344. Keywords: casein, Cheddar cheese, cheese, Cheshire cheese, compression, creep, Emmental cheese, firmness, Gloucester cheese, Gouda cheese, modulus, moisture content, Mozzarella cheese, Muenster cheese, penetrometer, protein, rheology, ripening, Russian cheese, viscoelasticity.
650. Prins A. (1986). Some physical aspects of aerated milk products. *Neth. Milk Dairy J.* 40: 203-215. Keywords: bubble, fat, foam, interface, milk, protein, skim milk, stability, viscosity.
651. Proctor BE, Davison S, Malecki GJ, Welch M. (1955). A recording strain-gage denture tenderometer for foods. I. Instrument evaluation and initial tests. *Food Technol.* 9: 471-477. Keywords: MIT denture

- tenderometer, rheology, texture.
652. Proctor BE, Davison S, Brody AL. (1956a). A recording strain gage denture tenderometer for foods. II. Studies on the masticatory force and motion, and the force-penetration relationship. *Food Technol.* 10: 327-344. Keywords: Cheddar cheese, cheese, MIT denture tenderometer, rheology, texture.
653. Proctor BE, Davison S, Brody AL. (1956b). A recording strain gage denture tenderometer for foods. III. Correlation with subjective tests and the Canco tenderometer. *Food Technol.* 10: 344-346. Keywords: MIT denture tenderometer, rheology, texture.
654. Prosek Z, Stern P. (1989). Rheological properties of processed cheese. *Prumysl Potravin* 40 (2): 78-80 (in Czech). Keywords: cheese, consistency, fat, Ferranti-Shirley viscometer, pH, process cheese, rheology, viscometer, viscosity.
655. Puhan Z, Caric M, Djordjevic J. (1976). Electron microscope study of casein in model systems. I. Shape, size and size distribution of casein micelles in the presence of Ca^{2+} , in combination with Na^+ , K^+ , PO_4^{3-} and citrate. *Lebensm. Wiss. Technol.* 9: 374-379. Keywords: casein, citrate, EM, micelle.
656. Purkayastha S, Peleg M. (1987). Comparison between projected mechanical equilibrium conditions of selected food materials in stress relaxation and creep. *J. Text. Studies* 17: 433-444. Keywords: Cheddar cheese, cheese, compression, rheology, texture.
657. Purkayastha S, Peleg M, Johnson EA, Normand MD. (1985). A computer aided characterization of the compressive creep behavior of potato and Cheddar cheese. *J. Food Sci.* 50: 45-50, 55. Keywords: Cheddar cheese, cheese, compression, creep, potato, rheology.
658. Raadsved CW, Mulder H. (1949). The influence of temperature on the ripening of Edam cheese. *Neth. Milk Dairy J.* 3, 117-141. Keywords: cheese, consistency, deformation, Edam cheese, elasticity, fat, firmness, milk, modulus, moisture content, pH, protein, rheology, ripening, viscometer, viscosity.
659. Rammell GG. (1960). The distribution of bacteria in New Zealand Cheddar cheese. *J. Dairy Res.* 27: 341-351. Keywords: Cheddar cheese, cheese.
660. Rayan AA. (1980). Microstructure and Rheology of Process Cheese. *Dis. Int. B.* 41: 2954. Keywords: cheese, process cheese, rheology.
661. Rayan AA, Kalab M, Ernstom CA. (1980). Microstructure and rheology of process cheese. *Scanning Electron Microsc./1980/III:* 635-643. Keywords: cheese, citrate, crystal, emulsifier, firmness, melting, process cheese, phosphate, rheology, SEM, TEM.
662. Richardson GH, Okigbo LM, Thorpe JD. (1985). Instrument for measuring milk coagulation in cheese vats. *J. Dairy Sci.* 68: 32-36. Keywords: Ched-
- dar cheese, cheese, coagulation, Cottage cheese, curd, milk, Swiss cheese, ultrafiltration.
663. Richmond P, Smith AC. (1987). Rheology, structure and food processing. Chapter 13 in: *Food Structure and Behavior*. JMV Blanshard and P Lillford (eds.), Academic Press, New York. 259-283. Keywords: extrusion, rheology, SEM, texture, viscometer, viscosity.
664. Riddell-Lawrence S, Hicks CL. (1989). Effect of curd firmness on stirred curd cheese yield. *J. Dairy Sci.* 72: 313-321. Keywords: CEM curd firmness device, cheese, curd, fat, firmness, milk, moisture content, protein, protease, rennet.
665. Robert F, Sherman P. (1988). The influence of surface friction on the calculation of stress relaxation parameters for processed cheese. *Rheol. Acta* 27: 212-215. Keywords: casein, cheese, compression, elasticity, Gouda cheese, Instron, modulus, process cheese, protein, rheology.
666. Robinson RK. (ed., 1986). *Modern Dairy Technology*, Vol. 2, *Advances in Milk Products*. Elsevier, London. Book of 440 pages and 8 chapters. Keywords: cheese, coagulation, ice cream, milk, yoghurt.
667. Roetmann K. (1979). Crystalline lactose and the structure of spray dried milk products as observed by scanning electron microscopy. *Neth. Milk Dairy J.* 33: 1-11. Keywords: crystal, lactose, LM, milk, porosity, SEM, skim milk, whey.
668. Rohm H. (1988). Viscosity of recombined sweetened condensed milk. *Milchwissenschaft* 43: 303-306. Keywords: casein, milk, milk powder, skim milk, thickening, viscosity.
669. Rohm H. (1989). Viscosity and thixotropy of yoghurt. *Milchwissenschaft* 44: 340-342 (in German) Keywords: Contraves, denaturation, firmness, gel, lactoglobulin, milk, rheology, viscometer, viscosity, yoghurt, whey.
670. Rohm H. (1990). Texture characteristics and overall quality of foods, considering milk products as an example. *Deutsche Lebensm. Rundschau* 86: 47-53 (in German) Keywords: milk, rheology, texture.
671. Rohm H, Veits V. (1990). Comparative texture profiles of different cheese varieties. *Milchwissenschaft* 45: 236-239 (in German). Keywords: Camembert cheese, cheese, Emmental cheese, texture, Tilsit cheese, TPA.
672. Rose D, Colvin JR. (1966). Appearance and size of micelles from bovine milk. *J. Dairy Sci.* 49: 1091-1097. Keywords: calcium, casein, citrate, micelle, milk, protein, skim milk, TEM.
673. Rosenau JR, Calzada JF, Peleg M. (1978). Some rheological properties of a cheese-like product prepared by direct acidification. *J. Food Sci.* 43: 948-950, 953. Keywords: cheese, compression, rheology.

674. Rousseau M. (1984). Study of the surface flora of traditional Camembert cheese by scanning electron microscopy. *Milchwissenschaft* 39: 129-135. Keywords: Camembert cheese, cheese, rind, ripening, SEM.
675. Rousseau M. (1988). Changes in the microstructure of Saint Paulin cheese during manufacture studied by scanning electron microscopy. *Food Microstruc.* 7: 105-113. Keywords: casein, cheese, cryomicroscopy, fat, globule, Saint Paulin cheese, SEM.
676. Rousseau M, Le Gallo C. (1990). Scanning electron microscopic study of the structure of Emmental cheese during manufacture. *Lait*, 70: 55-66 (in French). Keywords: bubble, casein, cheese, coagulation, curd, Emmental cheese, fat, globule, micelle, milk, ripening, SEM, texture.
677. Roy I, Peleg M. (1989). An empirical model for the force-deformation relationships of cylindrical food specimens in quasi-static radial loading. *J. Text. Studies* 19: 453-463. Keywords: Cheddar cheese, deformation, rheology, texture.
678. Ruegg M, Blanc B. (1972). Study of the microstructure of cheese curd and body by electron microscopy. *Schweiz. Milchw. Forschung* 1: 1-8 (in German) Keywords: body, casein, cheese, clotting, crystal, curd, Emmental cheese, fat, freeze fracture, glutaraldehyde, melting, micelle, milk, osmium tetroxide, process cheese, protein, rennet, TEM, tyrosine, whey.
679. Ruegg M, Blanc B. (1978). Influence of pasteurization and UHT processing upon the size distribution of casein micelles in milk. *Milchwissenschaft* 33: 364-366 (in German) Keywords: casein, freeze fracture, micelle, milk, TEM.
680. Ruegg M, Blanc B. (1981). The fat globule size distribution in human milk. *Biochim. Biophys. Acta* 666: 7-14. Keywords: emulsion, fat, globule, milk, stability.
681. Ruegg M, Blanc B. (1982). Structure and properties of the particulate constituents of human milk. A review. *Food Microstruc.* 1: 25-47. Keywords: casein, cell, coagulation, colloid, fat, globule, human milk, micelle, milk.
682. Ruegg M, Eberhard P, Moor U, Fluckiger E, Blanc B. (1980). Relationships between texture and composition of cheese (in German) *Schweiz. Milchw. Forschung* 9: 3-8. Keywords: calcium, cheese, extrusion, Haake, Instron, pH, rheology, texture, viscometer, water activity.
683. Ruegg M, Moor U. (1984). Effect of calcium on the hydration of casein. I. Water vapour sorption and fine structure of calcium caseinates compared with sodium caseinates in the pH range 4.6-8.0. *J. Dairy Res.* 51: 103-111. Keywords: casein, cross linking, micelle, pH, TEM, water activity, water.
684. Ruegg M, Moor U. (1987). The size distribution and shape of curd granules in traditional Swiss hard and semi-hard cheeses. *Food Microstruc.* 6: 35-46. Keywords: cheese, curd, curd granule junction, Emmental cheese, Gruyere cheese, image analysis, LM, Swiss cheese, Sbrinz cheese.
685. Ruegg M, Moor U. (1988). Softening and dropping point temperatures of semi-hard and hard cheese varieties. *Schweiz. Milchw. Forschung* 17: 69-73 (in German) Keywords: calcium, cheese, fat, melting, moisture content, rheology, texture, viscosity.
686. Ruegg M, Moor U, Blanc B. (1977). A calorimetric study of the thermal denaturation of whey proteins in simulated milk ultrafiltrate. *J. Dairy Res.* 44: 509-520. Keywords: calorimetry, milk, protein, ultrafiltration, whey.
687. Ruegg M, Moor U, Blanc B. (1980). Changes in the fine structure of ripening Gruyere cheese. A scanning electron microscope study. *Milchwissenschaft* 35: 329-335 (in German) Keywords: casein, cheese, Emmental cheese, glutaraldehyde, Gruyere cheese, osmium tetroxide, proteolysis, rind, ripening, SEM.
688. Ruegg M, Moor U, Schnider J. (1985). On the size distribution and shape of the curd granules in Swiss Emmental cheese. *Schweiz. Milchwirt. Forschung* 14: 3-7 (in German) Keywords: cheese, curd, Emmental cheese, glutaraldehyde, granule, image analysis, LM, Swiss cheese.
689. Ruegg M, Sieber R, Blanc B. (1974). The structure of cheese as observed by a scanning electron microscope. *Schweiz. Milchwirt. Forschung* 3: 1-5 (in German) Keywords: Camembert cheese, casein, cheese, Emmental cheese, glutaraldehyde, lipid, milk, osmium tetroxide, SEM, Tilt cheese.
690. Ruettimann KW, Ladisch MR. (1987). Casein micelles: structure, properties and enzymatic coagulation. *Enzyme Microb. Technol.* 9: 578-589. Keywords: amino acid, calcium, casein, cheese, chymosin, clotting, coagulation, enzyme, micelle, milk, pH, protein, proteolysis, rennet, turbidity, luminosity.
691. Saito Z. (1973). Electron microscopic and compositional studies of casein micelles. *Neth. Milk Dairy J.* 27: 143-162. Keywords: amino acid, casein, centrifugation, electrophoresis, fat, globule, micelle, milk, pH, SEM, skim milk, TEM, turbidity.
692. Saito Z. (1985). Particle structure in spray dried whole milk and in instant skim milk powder as related to lactose crystallization. *Food Microstruc.* 4: 333-340. Keywords: crystal, lactose, milk, milk powder, SEM, skim milk, water activity.
693. Saito Z. (1988). Lactose crystallization in commercial whey powders and in spray-dried lactose. *Food Microstruc.* 7: 75-81. Keywords: crystal, lactose, water activity, whey.

Structure and Rheology of Dairy Products: Bibliography

694. Salam AE. (1988a). Texture of processed cheeses related with their fat and dry matter contents. *Alex. Sci. Exch.* 9 (1): 45-52. Keywords: Cheddar cheese, cheese, deformation, emulsifier, fat, Kramer cell, Ottawa texture measuring system, process cheese, Ras cheese, spreadability, texture.
695. Salam AE. (1988b). Texture of processed cheese as affected by different blend ingredients. *Alex. Sci. Exch.* 9 (2): 167-174. Keywords: butter, Cheddar cheese, cheese, curd, Kramer cell, milk, moisture content, pH, Ottawa texture measuring system, process cheese, Ras cheese, rheology, skim milk, spreadability, texture.
696. Salam AE, Ezzat N, El-Soda M. (1988). Texture of Ras cheese treated by different enzymes during ripening. *Egyptian J. Dairy Sci.* 16: 201-208. Keywords: cheese, enzyme, Kramer cell, milk, Ottawa texture measuring system, Ras cheese, proteolysis, ripening, texture.
697. Saltmarch M, Labuz TP. (1980). SEM investigation of the effect of lactose crystallization on the storage properties of spray dried whey. *Scanning Electron Microsc.* /1980/III: 659-665. Keywords: crystal, lactose, Maillard reaction, SEM, water activity, whey.
698. Samuelsson EJG. (1987). Consistency, composition and structure of butter. *Nordisk Mejeriindustri* 14: 351-359 (in Swedish). Keywords: butter, consistency, fat.
699. Sargent JA. (1988). The application of cold stage scanning electron microscopy to food research. *Food Microstruc.* 7: 123-135. Keywords: butter, cream, cryomicroscopy, ice cream, SEM.
700. Savello PA. (1983). Melting and rheology of model process cheeses containing acid and rennet casein. Ph.D. Thesis, Utah State University. University Microfilms Internat. Ann Arbor, MI. Keywords: casein, cheese, melting, MTS Tensile Testing machine, process cheese, rennet, rheology.
701. Savello PA, Ernstrom CA, Kalab M. (1989). Microstructure and melting of model process cheese made with rennet and acid casein. *J. Dairy Sci.* 72: 1-11. Keywords: casein, cheese, emulsion, fat, globule, melting, process cheese, protein, rennet, whey.
702. Scharpf LG Jr., Kichline TP. (1968). Effect of phosphorous and pH on type and extent of crystal formation in process cheese. *J. Dairy Sci.* 51: 853-857. Keywords: American process cheese, Cheddar cheese, cheese, crystal, emulsifier, melting, moisture content, pH, phosphate, process cheese, X-ray crystallography.
703. Scharpf LG Jr., Kichline TP. (1969). Properties and chemical characterization of a "bloom" on process cheese slices. *Food Technol.* 23: 835-837. Keywords: cheese, citrate, crystal, emulsifier, LM, moisture content, process cheese, X-ray crystallography.
704. Scharpf LG Jr., Michnick MJ. (1967). In situ identification of crystals on process cheese by X-ray diffraction. *J. Dairy Sci.* 50: 1989-1991. Keywords: cheese, crystal, emulsifier, phosphate, process cheese, X-ray crystallography.
705. Schellhaass SM, Morris HA. (1985). Rheological and scanning electron microscopic examination of skim milk gels obtained by fermenting with ropy and non-ropey strains of lactic acid bacteria. *Food Microstruc.* 4: 279-287. Keywords: cell, gel, firmness, Haake, Instron, lactic acid bacteria, milk, protein, rheology, SEM, skim milk, viscometer, viscosity.
706. Schimmin PD. (1982). Observation of fat distribution in cheese by incident light fluorescence microscopy. *Aust. J. Dairy Tech.* 37: 33-34. Keywords: Cheddar cheese, cheese, curd, curd granule junction, fat, fluorescence microscopy, gel, granule, LM, milk, protein, soy, ultrafiltration.
707. Schmidt DG. (1968). Electron-microscopic studies on the gelation of UHTST sterilized concentrated skim milk. *Neth. Milk Dairy J.* 22: 40-49. Keywords: casein, gel, milk, skim milk, TEM.
708. Schmidt DG. (1969). Effect of the addition of α_{1s}^{r} , β and γ -casein on the size of the casein micelles in UHTST-sterilized concentrated skim milk. *Neth. Milk Dairy J.* 23: 128-135. Keywords: casein, electrophoresis, micelle, milk, skim milk, TEM.
709. Schmidt DG. (1979). Properties of artificial casein micelles. *J. Dairy Res.* 46: 351-355. Keywords: casein, citrate, colloid, micelle, phosphate, stability, TEM.
710. Schmidt DG. (1980). Colloidal aspects of casein. *Neth. Milk Dairy J.* 34: 42-64. Keywords: calcium, casein, chymosin, colloid, freeze fracture, gel, Golgi apparatus, lactoglobulin, micelle, milk, phosphate, protein, proteolysis, stability, TEM, viscosity.
711. Schmidt DG. (1982a). Electron microscopy of milk and milk products: problems and possibilities. *Food Microstruc.* 1: 151-165. Keywords: casein, cheese, cryomicroscopy, crystal, gel, micelle, milk, SEM, TEM, X-ray microanalysis.
712. Schmidt DG. (1982b). Association of caseins and casein micelle structure. In: *Developments in Dairy Chemistry*. 1. Proteins. PF Fox (ed.), Elsevier, London. 61-82. Keywords: casein, freeze fracture, micelle, milk, TEM.
713. Schmidt DG, Buchheim W. (1968). Electron microscopic studies on the casein particles in sterile concentrated milk. *Milchwissenschaft* 23: 505-509 (in German) Keywords: casein, gel, milk, osmium tetroxide, phosphate, skim milk, TEM, thickening.
714. Schmidt DG, Buchheim W. (1970). An electron microscopical investigation of the sub-structure of the casein micelles in cow's milk. *Milchwissenschaft* 25:

- 596-600 (in German) Keywords: calcium, casein, glutaraldehyde, micelle, milk, TEM.
715. Schmidt DG, Buchheim W. (1975). Particle size distribution in casein solutions. *Neth. Milk Dairy J.* 30: 17-28. Keywords: casein, freeze fracture, micelle, milk, skim milk, TEM.
716. Schmidt DG, Buchheim W. (1980). On the size of α -lactalbumin and β -lactoglobulin molecules as determined by electron microscopy using the spray freeze-etching technique. *Milchwissenschaft* 35: 209-211. Keywords: electrophoresis, freeze-etch, lactalbumin, lactoglobulin, protein, starch, TEM.
717. Schmidt DG, Buchheim W, Koops J. (1971). An electron microscopical study of the fat-protein complexes in evaporated milk, using the freeze-etching technique. *Neth. Milk Dairy J.* 25: 200-216. Keywords: casein, crystal, fat, freeze-etch, globule, micelle, milk, protein, rind, SEM.
718. Schmidt DG, Henstra S, Thiel F. (1979). A simple low temperature technique for scanning electron microscopy of cheese. *Mikroskopie (Vienna)* 35: 50-55. Keywords: casein, cheese, cryomicroscopy, fat, globule, Gouda cheese, melting, milk, protein, rind, SEM.
719. Schmidt DG, Payens TAJ. (1976). Micellar aspects of casein. *Surface and Colloid Sci.* 9: 165-229. Keywords: amino acid, calcium, casein, centrifugation, citrate, colloid, electrophoresis, Golgi apparatus, light scattering, micelle, milk, pH, phosphate, protein, skim milk, solubility, stability, TEM, viscosity.
720. Schmidt DG, Poll JK. (1989). Properties of artificial casein micelles. 4. Influence of dephosphorylation and phosphorylation of the casein. *Neth. Milk Dairy J.* 43: 53-62. Keywords: casein, colloid, micelle, phosphate, phosphorylation, stability.
721. Schmidt DG, van Hooydonk ACM. (1980). A scanning electron microscopical investigation of the whipping of cream. *Scanning Electron Microsc.* 1980/II: 653-658, 644. Keywords: cream, freeze-etch, interface, SEM, whipped cream.
722. Schmidt DG, Walstra P, Buchheim W. (1973). The size distribution of casein micelles in cow's milk. *Neth. Milk Dairy J.* 27: 128-142. Keywords: casein, crystal, freeze fracture, micelle, milk, skim milk, TEM, viscosity.
723. Schmidt KA, Smith DE. (1989). Effects of varying homogenization pressure on the physical properties of vanilla ice cream. *J. Dairy Sci.* 72: 378-384. Keywords: emulsifier, fat, globule, Haake, ice cream, LM, milk, stability, viscometer, viscosity.
724. Schmidt RH, Morris HA. (1984). Gelation properties of milk proteins, soy proteins, and blended protein systems. *Food Technol.* 38: 85-96. Keywords: gel, milk, protein, soy.
725. Schwartzberg HG, Rao MA. (eds., 1990). *Biotechnology and Food Process Engineering*. (IFT Basic Symposium Series) Marcel Dekker, New York. A book of 493 pages and 14 chapters. Keywords: extrusion, membrane, microwave.
726. Scott Blair GW. (1938). An apparatus for measuring the elastic and plastic properties of cheese curd. *J. Dairy Res.* 9: 345-350. Keywords: cheese, compression, curd, deformation, firmness, rheology, viscoelasticity.
727. Scott Blair GW. (ed., 1953). *Foodstuffs: their Plasticity, Fluidity and Consistency*. North-Holland Pub. Co., Amsterdam. A book of 264 pages and 8 chapters. Keywords: body, butter, Cheddar cheese, cheese, Cheshire cheese, consistency, cream, curd, deformation, fat, Gruyere cheese, hardness, ice cream, milk, rennet, rheology.
728. Scott Blair GW, Baron M. (1949). Constant stress measurements of the hardening of soft materials. *Nature* 164: 148. Keywords: cheese, deformation, elasticity, hardness, rheology.
729. Scott Blair GW, Burnett J. (1959a). On the creep, recovery, relaxation and elastic memory of some renneted milk gels. *Brit. J. Appl. Phys.* 10: 15-20. Keywords: creep, gel, rennet, rheology, viscoelasticity.
730. Scott Blair GW, Burnett J. (1959b). Distribution of relaxation times in a symmetrically stressed renneted milk gel. *Brit. J. Appl. Phys.* 10: 97-99. Keywords: gel, milk, rennet, rheology.
731. Scott Blair GW, Coppen FMV. (1940). An objective measure of the consistency of cheese curd at the pitching point. *J. Dairy Res.* 11: 187-195. Keywords: cheese, consistency, curd, rheology.
732. Scott Blair GW, Coppen FMV. (1941). The consistency of cheese curd at the pitching point and its bearing on the firmness and quality of the finished cheese. *J. Dairy Res.* 12: 44-54. Keywords: cheese, consistency, curd, firmness.
733. Scott Blair GW, Oosthuizen JC. (1961). A viscometric study of the breakdown of casein in milk by rennin and rennet. *J. Dairy Res.* 28: 165. Keywords: casein, milk, rennet, viscosity.
734. Senouci A, Smith AC. (1988). An experimental study of food melt rheology. I. Shear viscosity using a slit die viscometer and a capillary rheometer. *Rheologica Acta* 27: 546-554. Keywords: capillary rheometry, melting, rheology, viscometer, viscosity.
735. Sestak J, Zitny R, Houska M. (1983). Simple rheological models of food liquids for process design and quality assessment. *J. Food Engr.* 2: 35-49. Keywords: Haake, Herschel-Bulkley model, Instron, rheology, thixotropy, viscometer, Weissenberg Rheogoniometer.
736. Shama F, Sherman P. (1966). The texture of ice cream. 2. Rheological properties of frozen ice

Structure and Rheology of Dairy Products: Bibliography

- cream. *J. Food Sci.* 31: 699-706. Keywords: creep, crystal, emulsifier, fat, globule, ice cream, modulus, protein, rheology, viscoelasticity, viscosity.
737. Shama F, Sherman P. (1973a). Evaluation of some textural properties of foods with the Instron universal testing machine. *J. Texture Studies*, 4: 344-353. Keywords: cheese, Gloucester cheese, Gouda cheese, Instron, Stilton cheese, texture.
738. Shama F, Sherman P. (1973b). Stress relaxation during force-compression studies on foods with the Instron universal testing machine and its implications. *J. Text. Studies* 4: 353-362. Keywords: Cheddar cheese, cheese, Edam cheese, Instron, rheology.
739. Shannon CW. (1974). The effects of freezing Cheddar cheese on certain physical characteristics and the survival of some microorganisms. PhD Thesis, Mississippi State University. University Microfilms International, Ann Arbor, Mich.] Keywords: body, Cheddar cheese, cheese, Edam cheese, Kramer cell, rheology.
740. Sharma DK, Prasad DN. (1990). Changes in the physical properties of ultra high temperature processed buffalo milk during storage. *J. Dairy Res.* 57: 187-196. Keywords: agar, buffalo milk, casein, centrifugation, encapsulation, gel, lactoglobulin, micelle, milk, proteolysis, SEM, viscometer, viscosity, whey.
741. Sharma SK, Hill AR, Goff HD. (1990). The effect of heat treatment of ultrafiltered milk on its coagulation properties. *Milchwissenschaft*, 45: 432-435. Keywords: casein, coagulation, consistency, enzyme, glycomacopeptide, milk, Nametre, proteolysis, rennet, skim milk, ultrafiltration, viscometer, viscosity.
742. Sharma SK, Hill AR, Goff HD, Yada RY. (1989). Measurement of coagulation time and curd firmness using a Nametre viscometer. *Milchwissenschaft* 44: 682-685. Keywords: casein, clotting, coagulation, consistency, curd, firmness, gel, glycomacopeptide, milk, Nametre, rennet, skim milk, viscometer, viscosity.
743. Shaw DJ. (1963). The physical structure of ice cream. In: *Rheology of Emulsions*. P Sherman (ed.), Macmillan, New York. 125-131. Keywords: creep, deformation, dynamic testing, ice cream, melting, protein, rheology, viscoelasticity.
744. Sherbon JW. (1988). Physical properties of milk. In: *Fundamentals of Dairy Chemistry*, 3rd ed. P Wong, R Jenness, M Keeney and EH Marth (eds.), Van Nostrand Reinhold Co., New York. 409-460. Keywords: milk.
745. Sherman P. (ed., 1963) *Rheology of Emulsions*. Macmillan Co., New York. Book of 146 pages. Keywords: emulsion, ice cream, rheology.
746. Sherman P. (1965). The texture of ice cream. *J. Food Sci.* 30: 201-211. Keywords: coagulation, crystal, fat, globule, ice cream, rheology, texture.
747. Sherman P. (1966). The texture of ice cream 3. Rheological properties of mix and melted ice cream. *J. Food Sci.* 31: 707-716. Keywords: creep, crystal, fat, ice cream, melting, rheology, texture, water.
748. Sherman P. (1976). *Industrial Rheology with Particular Reference to Foods, Pharmaceuticals and Cosmetics*. Academic Press, New York. A book of 423 pages. Keywords: cheese, cream, fat, ice cream, milk, rheology.
749. Sherman P. (1976). The textural characteristics of dairy products. Chapter 10 in: *Rheology and Texture in Food Quality*. JM deMan, PW Voisey, VF Rasper and DW Stanley (eds.), AVI Pub. Co., Westport, CT. 382-404. Keywords: butter, cheese, cream, crystal, dynamic testing, emulsion, gel, globule, hardness, ice cream, Instron, milk, penetrometer, process cheese, viscoelasticity, viscosity, yoghurt.
750. Shimada K, Cheftel C. (1988). Texture characteristics, protein solubility, and sulfhydryl group/disulfide bond contents of heat-induced gels of whey protein isolate. *J. Agric. Food Chem.* 36: 1018-1025. Keywords: compression, elasticity, firmness, gel, Instron, LFRA texture analyzer, moisture content, pH, protein, solubility, texture, whey.
751. Shimizu M, Yamauchi K. (1989). Emulsification properties of casein peptides. *New Food Industry* 31: 5, 51-64 (in Japanese). Keywords: casein, cryo-microscopy, emulsion, enzyme, globule, glycomacopeptide, interface, lipid, membrane, milk, pH, protein, SEM, solubility, Tween.
752. Simonin C, Ruegg M, Sidiropoulos D. (1984). Comparison of the fat content and fat globule size distribution of breast milk from mothers delivering term and preterm. *Am. J. Clin. Nutr.* 40: 820-826. Keywords: fat, globule, milk.
753. Skeie SB. (1989). Effect of different cheese-making techniques on the consistency of Camembert cheese. *Meieriposten* 78: 166-167 (in Norwegian). Keywords: Camembert cheese, cheese, consistency, milk, rennet.
754. Skudder PJ, Brooker BE, Bonsey AD, Alvarez-Guerrero NR. (1986). Effect of pH on the formation of deposit from milk on heated surfaces during ultra high temperature processing. *J. Dairy Res.* 53: 75-87. Keywords: agar, casein, fat, glutaraldehyde, micelle, milk, osmium tetroxide, pH, protein, TEM.
755. Skudder PJ, Glover FA, Green ML. (1977). An examination of the factors affecting the reverse osmosis of milk with special reference to deposit formation. *J. Dairy Res.* 44: 293-307. Keywords: buttermilk, casein, fat, glutaraldehyde, membrane, micelle, milk, osmium tetroxide, permeate, phosphate, reverse osmosis, solubility, TEM, ultrafiltration.
756. Sleigh RW, Bain JM, Burley RW. (1976). A study of cow's milk containing high levels of linoleic

- bility, texture, TPA, Weissenberg Rheogoniometer.
795. Taranto MV, Wan PJ, Chen SL, Rhee KC. (1979). Morphological, ultrastructural and rheological characterization of Cheddar and Mozzarella cheese. *Scanning Electron Microsc./1979/III:* 273-278. Keywords: adhesiveness, Cheddar cheese, cheese, cohesiveness, compression, hardness, Instron, moisture content, Mozzarella cheese, protein, rheology, springiness, TPA.
796. Tatsumi K, Ohba S, Nakajima I, Shinohara K, Kawanishi G. (1975). The effect of emulsifying salts on the texture of processed cheese. III. The effects of emulsifying salts on the state of dispersion of casein. *J. Agr. Chem. Soc. Japan* 49: 481. Keywords: casein, cheese, emulsifier, process cheese, texture.
797. Teggatz JA, Morris HA. (1990). Changes in the rheology and microstructure of ropy yoghurt during shearing. *Food Struc.* 9: 133-138. Keywords: casein, exopolysaccharide, Haake, lactic acid bacteria, micelle, milk, nonfat dry milk, pseudoplasticity, rheology, SEM, viscometer, viscosity, yoghurt.
798. Terres W, Schwarz K. (1988). Rheological properties of milk proteins and their binding behavior in the preparation of sauces. *Milchwissenschaft* 43: 712-715 (in German) Keywords: casein, fat, milk, pH, protein, sauce, viscosity, whey.
799. Thompson MP, Gordon WG, Boswell RT, Farrell HM Jr. (1969). Solubility, solvation and stabilization of α_{s1} - and β -caseins. *J. Dairy Sci.* 52: 1166-1173. Keywords: calcium, casein, chromatography, micelle, protein, solubility, stability.
800. Thompson LU, Reniers DJ. (1982). Succinylated cheese whey protein concentrate in coffee whitener and salad dressing. *J. Dairy Sci.* 65: 1135-1140. Keywords: casein, cheese, coffee whitener, egg, emulsifier, protein, salad dressing, stability, succinylation, viscosity, whey.
801. Timmen T, Patton S. (1988). Milk fat globules: fatty acid composition, size and in vivo regulation of fat liquidity. *Lipids* 23: 685-689. Keywords: fat, fatty acid, globule, milk.
802. Tomar SK, Prasad DN. (1989). Microstructure of yoghurt prepared from buffalo whole milk. *Buffalo J.* 5: 25-32. Keywords: buffalo milk, casein, curd, micelle, milk, protein, SEM, yoghurt.
803. Tong PS, Jordan WK, Houghton G. (1984). Response surface methodology to study fat destabilization and development of overrun in ice creams produced with polyunsaturated safflower oil and milk fat blends. *J. Dairy Sci.* 67: 779-793. Keywords: emulsifier, fat, ice cream, LM, milk, safflower oil, stability, turbidity.
804. Tomberg E. (1979). The absorption behavior of proteins at an interface as related to their emulsifying properties. In: *Functionality and Protein Structure. ACS Symposium Series* 92. A Pour-El (ed.), Am. Chem. Soc. Washington, D.C., 105-123. Keywords: casein, emulsion, fat, interface, protein, soy, whey.
805. Touhy JJ, Burgess KJ, Lambert I. (1979). A comparison of the texture of expanded milk protein meat extenders and TVP. *J. Food Technol.* 14: 473-481. Keywords: chewiness, cohesiveness, hardness, Instron, microwave, milk, Ottawa texture measuring system, milk protein, skim milk, protein, texture, whey.
806. Tunick MH, Basch JJ, Maleeff BE, Flanagan JJ, Holsinger VH. (1989). Characterization of natural and imitation Mozzarella cheeses by differential scanning calorimetry. *J. Dairy Sci.* 72: 1976-1980. Keywords: cheese, DSC, electrophoresis, fat, imitation cheese, melting, Mozzarella cheese, SEM.
807. Tunick MH, Nolan EJ, Shieh JJ, Basch JJ, Thompson MP, Maleeff BE, Holsinger VH. (1990). Cheddar and Cheshire cheese rheology. *J. Dairy Sci.* 73: 1671-1675. Keywords: body, casein, Cheddar cheese, cheese, Cheshire cheese, curd, DSC, elasticity, glutaraldehyde, modulus, osmium tetroxide, rheology, Rheometrics, SEM, texture, viscometer, viscosity.
808. Ulberth F. (1989). Influence of different methods of physical cream ripening on the spreadability of butter. *Milchwissenschaft* 44: 415-417 (in German). Keywords: butter, consistency, cream, FIRA-NIRD extruder, ripening, spreadability.
809. Uhlmann G, Klostermeyer H, Merkenich K. (1983). Formation of crystals in process cheese. I. The phenomenon and its sources. *Milchwissenschaft* 38: 582-585. Keywords: cheese, citrate, crystal, lactose, LM, melting, phosphate, process cheese, salt, SEM, tyrosine, X-ray crystallography.
810. Ustunol Z, Hicks CL. (1990). Effect of a coagulation monitoring device on experimental cheese yield. *J. Dairy Sci.* 73: 1-7. Keywords: CEM coagulation monitoring device, cheese, coagulation, moisture content.
811. Uusi-Rauva E, Rautavaara J-A, Antila M. (1972). Effects of various temperature treatments on casein micelles. An electron microscopic study using negative staining. *Meijeritietteinen Aikakauskirja* 31: 15-25 (in German). Keywords: casein, micelle, milk, pasteurization, TEM.
812. van de Voort FR, Stanley DW, Edamura R. (1984) Improved utilization of dairy products: coextrusion of casein and wheat flour. *J. Dairy Sci.* 67: 749-758. Keywords: casein, extrusion, flour, moisture content, SEM, starch, texture, Warner-Bratzler apparatus, wheat.
813. van Kreveld A. (1969). Growth rates of lactose crystals in solutions of stable anhydrous α -lactose. *Neth. Milk Dairy J.* 23: 258-275. Keywords: carbohydrate, crystal, lactose, moisture content, sugar.
814. van Vliet T, Dentener-Kikkert A. (1982).

Structure and Rheology of Dairy Products: Bibliography

- Influence of the composition of the milk fat globule membrane on the rheological properties of acid milk gels. *Neth. Milk Dairy J.* 36: 261-265. Keywords: casein, cross linking, emulsion, fat, gel, globule, membrane, milk, rheology, skim milk.
815. Van Vliet T, Roefs SPF, Zoon P, Walstra P. (1989). Rheological properties of casein gels. *J. Dairy Res.* 56: 529-534. Keywords: casein, dynamic testing, gel, milk, protein, rheology, skim milk, viscoelasticity.
816. Van Vliet T, Walstra P. (1980). Relationship between viscosity and fat content of milk and cream. *J. Text. Studies* 11: 65-68. Keywords: cream, fat, milk, protein, sugar, viscosity.
817. Van Vliet T, Walstra P. (1985). Note on the shear modulus of rennet-induced milk gels. *Neth. Milk Dairy J.* 39: 115-119. Keywords: gel, milk, modulus, rennet, rheology, viscosity.
818. Vasic I, deMan JM. (1968). Effect of mechanical treatment on some rheological properties of butter. In: *Rheology and Texture of Foodstuffs*. Monograph 27, Soc. Chem. Ind., London, 251-264. Keywords: butter, rheology, texture.
819. Vassal L. (1987). The sensory analysis of cheese. 2. The relationship between sensory analysis and instrumental measurements. In: *Cheesemaking: Science and Technology*, 2nd ed. A Eck (ed.) Technique et Documentation-Lavoisier, Paris, France. 495-498. Keywords: cheese.
820. Vassal L, Monnet V, Le Bars D, Roux C, Gripon JC. (1986). Relation between pH, chemical composition and texture of Camembert cheese. *Lait*, 66: 341-351 (in French). Keywords: Camembert cheese, cheese, pH, proteolysis, texture.
821. Vaughan JG. (ed., 1979). *Food Microscopy*. Academic Press, New York. Book of 651 pages and 16 chapters. Keywords: Cheddar cheese, cheese, crystal, curd, fat, globule, ice cream, LM, micelle, milk, SEM, TEM, yoghurt.
822. Velicky IA, Kalab M. (1990). Encapsulation of viscous high-fat foods in calcium alginate gel tubes at ambient temperature. *Food Struc.* 9: 151-154. Keywords: alginate, cream, egg, encapsulation, extrusion, fat, freeze fracture, gel, glutaraldehyde, mayonnaise, osmium tetroxide, SEM, TEM.
823. Verhey JGP. (1972a). Vacuole formation in spray dried powder particles. 1. Air incorporation and bubble expansion. *Neth. Milk Dairy J.* 26: 186-202. Keywords: density, milk, milk powder, moisture content, skim milk, viscometer, viscosity.
824. Verhey JGP. (1972b). Vacuole formation in spray dried powder particles. 2. Location and prevention of air incorporation. *Neth. Milk Dairy J.* 26: 203-224. Keywords: casein, egg, LM, milk, milk powder, SEM, skim milk, whey.
825. Verhey JGP, Vos EA. (1971). 'Air-free atomization': a method for producing spray powders without vacuoles. *Neth. Milk Dairy J.* 25: 73-74. Keywords: density, milk, milk powder.
826. Vetier C, Bennasar M, Tarodo de la Fuente B. (1988). Study of the fouling of a mineral microfiltration membrane using scanning electron microscopy and physicochemical analysis in the processing of milk. *J. Dairy Sci.* 55: 381-400. Keywords: calcium, casein, critical point drying, electrophoresis, glutaraldehyde, lactalbumin, lactoglobulin, membrane, micelle, milk, protein, SEM, skim milk, ultrafiltration.
827. Vijayananda P, Mittal BK, Kulshretha M. (1989). Instrumental texture profile analysis of soybean curds prepared by acid and salt coagulation. *J. Food Sci. Technol. (India)* 26: 223-224. Keywords: chewiness, coagulation, cohesiveness, curd, gumminess, hardness, Instron, soy, springiness, TPA.
828. Visser RA, Bennema P. (1983). Interpretation of the morphology of α -lactose hydrate. *Neth. Milk Dairy J.* 37: 109-137. Keywords: crystal, lactose.
829. Visser J, Minihan A, Smits P, Tjan SB, Heertje I. (1986). Effects of pH and temperature on the milk salt system. *Neth. Milk Dairy J.* 40: 351-368. Keywords: calcium, casein, centrifugation, freeze fracture, gel, glutaraldehyde, lactoglobulin, micelle, milk, modulus, NMR, pH, phosphate, protein, rheology, skim milk, TEM, ultrafiltration, viscometer, Weissenberg Rheogoniometer, whey.
830. Visser J, Schaier RW, van Gorkom M. (1979). The role of calcium, phosphate and citrate ions in the stabilization of casein micelles. *J. Dairy Res.* 46: 333-335. Keywords: calcium, casein, citrate, micelle, NMR, phosphate.
831. Voisey PW. (1977). Interpretation of force-deformation curves from the shear-compression cell. *J. Text. Studies* 8: 19. Keywords: compression, deformation, texture.
832. Voisey PW, Emmons DB. (1966). Modification of the curd firmness test for Cottage cheese. *J. Dairy Sci.* 49: 93-96. Keywords: cheese, compression, Cottage cheese, Cherry-Burrell meter, curd, firmness.
833. Voisey PW, Kloek M. (1975). Control of deformation in texture tests. *J. Text. Studies* 6: 489-506. Keywords: cheese, compression, Cream cheese, deformation, Instron, texture, viscoelasticity.
834. Vreeman HJ, van Markwijk BW, Both P. (1989). The structure of casein micelles between pH 5.5 and 6.7 as determined by light-scattering, electron microscopy and luminosity experiments. *J. Dairy Res.* 46: 463-470. Keywords: casein, EM, light scattering, micelle, pH, luminosity.
835. Walstra P. (1979). The luminosity of

- bovine casein micelles and some of its implications. *J. Dairy Res.* 46: 317-323. Keywords: casein, freeze fracture, light scattering, micelle, milk, TEM, viscosity, voluminosity.
836. Walstra P. (1969a). Studies on milk fat dispersion. II. The globule size distribution of cow's milk. *Neth. Milk Dairy J.* 23: 99-110. Keywords: Coulter counter, EM, fat, globule, milk, turbidity.
837. Walstra P. (1969b). Studies on milk fat dispersion. III. The distribution function of globule size in cow's milk and the process of milk fat formation. *Neth. Milk Dairy J.* 23: 111-123. Keywords: fat, globule, milk.
838. Walstra P. (1969c). Studies on milk fat dispersion. IV. A simple turbidimetric method for the determination of globule size and surface area in milk. *Neth. Milk Dairy J.* 23: 238-244. Keywords: fat, globule, milk, turbidity.
839. Walstra P. (1969d). Studies on milk fat dispersion. V. The mean distance between fat globules. *Neth. Milk Dairy J.* 23: 245-249. Keywords: fat, globule, milk.
840. Walstra P. (1983). Physical chemistry of milk fat globules. In: *Developments in Dairy Chemistry-2, Lipids*. PF Fox (ed.), Elsevier, London. 119-158. Keywords: bubble, emulsion, fat, globule, milk, stability.
841. Walstra P. (1985). Some comments on the isolation of fat globule membrane material. *J. Dairy Res.* 52: 309-312. Keywords: fat, globule, membrane, milk.
842. Walstra P. (1987a). Fat crystallization. Chapter 5 in: *Food Structure and Behaviour*. JMV Blanshard and P Lillford (eds.), Academic Press, New York. 67-85. Keywords: crystal, DTA, fat, fatty acid, lipid, melting, milk, triglyceride.
843. Walstra P. (1987b). Overview of emulsion and foam stability. In: *Food Emulsions and Foams*. E. Dickinson (ed.), Royal Soc. Chem. London. 242-257. Keywords: colloid, emulsion, film, foam, interface, protein, viscosity.
844. Walstra P. (1990). On the stability of casein micelles. *J. Dairy Sci.* 73: 1965-1979. Keywords: calcium, casein, coagulation, micelle, milk, phosphate, protein, skim milk, stability, voluminosity.
845. Walstra P, Jenness R. (1984). *Dairy Chemistry and Physics*, John Wiley & Sons, New York. A book of 467 pages and 20 chapters. Keywords: casein, colloid, emulsion, enzyme, fat, gel, globule, lipid, lactose, micelle, milk, protein, rheology, salt, water activity.
846. Walstra P, Oortwijn H, De Graaf JJ. (1969). Studies on milk fat dispersions. I. Methods for determining globule size distribution. *Neth. Milk Dairy J.* 23: 12-36. Keywords: fat, globule, milk.
847. Walstra P, van Vliet T. (1982). Rheology of cheese. *Bull. Int. Dairy Fed.* 153: 22-27. Keywords: cheese, rheology.
848. Walstra P, Van Vliet T. (1986). The Physical Chemistry of curd making. *Neth. Milk Dairy J.* 40: 241-259. Keywords: casein, cheese, cross linking, curd, gel, glycomacropeptide, micelle, milk, modulus, moisture content, pH, rennet, rheology, syneresis, ultrafiltration.
849. Warburton S, Pixton SW. (1978). The moisture relations of spray dried skimmed milk. *J. Stored Prod. Res.* 14: 143-158. Keywords: milk, moisture content, skim milk.
850. Washam CJ, Kerr TJ, Hurst VJ. (1982). Microstructure of various chemical compounds crystallized in Cheddar cheese. *J. Food Protection* 45: 594-596. Keywords: Cheddar cheese, cheese, lactate, phosphate, SEM, salt, sorbic acid, tyrosine.
851. Washam CJ, Kerr TJ, Hurst VJ, Rigby WE. (1985). A scanning electron microscopy study of crystalline structures on commercial cheese. Chapter 62 in: *Developments in Industrial Microbiology*, Vol. 26, Proceedings of the 41st General Meeting of the Soc. for Ind. Microbiol., Fort Collins, CO, August 11-17, 1984, 749-761. Keywords: calcium, Cheddar cheese, cheese, critical point drying, crystal, lactate, milk, phosphate, SEM, Swiss cheese, X-ray crystallography.
852. Washam CJ, Kerr TJ, Todd RL. (1979). Scanning electron microscopy of Blue cheese: mold growth during maturation. *J. Dairy Sci.* 62: 1384-1389. Keywords: Blue cheese, Cheddar cheese, cheese, critical point drying, crystal, enzyme, fat, glutaraldehyde, moisture content, ripening, SEM.
853. Watt IM. (1985). *The Principles and Practice of Electron Microscopy*. Cambridge University Press, Cambridge, England. A book of 304 pages, 5 chapters, 3 appendices and a bibliography. Keywords: LM, SEM, TEM.
854. Wayne JEB, Shoemaker CF. (1988). Rheological characterization of commercially processed fluid milks. *J. Text. Studies* 19: 143-152. Keywords: milk, rheology, Weissenberg Rheogoniometer.
855. Weaver JC, Kroger M, Thompson MP. (1978). Free amino acid and rheological measurements of hydrolyzed lactose Cheddar cheese during ripening. *J. Food Sci.* 43: 579-583. Keywords: amino acid, Cheddar cheese, cheese, Instron, lactose, rheology.
856. Weerstra R, Sjollema A, Tokley R. (1988). Improved viscosity test for the evaluation of skim milk powder for use in recombined sweetened condensed milk. *Neth. Milk Dairy J.* 42: 375-386. Keywords: milk, milk powder, protein, skim milk, viscometer, viscosity, whey.
857. Weik RW, Combs WB, Morris HA. (1958). Relationship between melting quality and hardness of

Structure and Rheology of Dairy Products: Bibliography

- Cheddar cheese. *J. Dairy Sci.* 41: 375-381. Keywords: Cheddar cheese, cheese, Cherry-Burrell meter, hardness, melting.
858. Werner H. (1989). Measuring cheese ripening and texture. *Scand. Dairy Ind.* (No. 1): 52-54. Keywords: Bohlin rheometer, Cheddar cheese, cheese, chromatography, compression, consistency, hardness, HPLC, Instron, Mozzarella cheese, process cheese, proteolysis, rheology, ripening, texture, viscosity.
859. White GW, Shenton AJ. (1977). Food microscopy (An annotated bibliography), part II E: Major ingredients: Milk and milk powder. *J. Assoc. Publ. Analysts* 15: 33-37. Keywords: milk, milk powder.
860. Whitehead J, Sherman P. (1967). Texture of ice cream. IV. The influence of fat content and coagulated fat on the structure of melted ice cream. *Food Technol.* 21: 1521-1524. Keywords: coagulation, creep, elasticity, fat, ice cream, melting, modulus, rheology, texture, viscometer, viscosity.
861. Wiechen A, Buchheim W, Prokopek D. (1985). Investigations on the distribution of soybean lecithin during cheesemaking by means of ^{14}C -labelling and electron microscopy. *Milchwissenschaft* 40: 402-406 (in German). Keywords: casein, cheese, coagulation, curd, freeze fracture, lecithin, milk, rennet, soy, TEM, whey.
862. Wilson HK, Yoshino U, Herreid EO. (1961). Size of protein particles in ultra high temperature sterilized milk as related to concentration. *J. Dairy Sci.* 44: 1836-1842. Keywords: milk, protein.
863. Windhab E. (1987). Quantification of ice cream consistency. *Zucker- und Süsswarenwirtschaft* 40(3): 82-88 (in German). Keywords: consistency, crystal, extrusion, ice cream, rheology, thixotropy, viscometer, viscosity.
864. Wong NP, Jenness R, Keeny M, Marth EH. (eds., 1988). Fundamentals of Dairy Chemistry, Third Edition, Van Nostrand Reinhold Company, New York. A book of 779 pages and 14 chapters. Keywords: cheese, clotting, coagulation, denaturation, enzyme, lactose, lipid, milk, protein.
865. Wooding FBP. (1971). The structure of the milk fat globule membrane. *J. Ultrastruct. Res.* 37: 388-400. Keywords: fat, globule, membrane, milk.
866. Wooding FBP, Kemp P. (1975). Ultrastructure of the milk fat globule membrane with and without triglyceride. *Cell Tiss. Res.* 165: 113-127. Keywords: chromatography, fat, globule, lipid, membrane, milk, TEM, triglyceride.
867. Wortmann A. (1965). Electron microscopic examination of the structures of butter, rendered butter and margarine. *Fette, Seifen, Anstrichmittel* 67: 279-285 (in German) Keywords: butter, fat, fatty acid, granule, margarine, osmium tetroxide, TEM.
868. Yamada M, Wada M, Watanabe T, Nagatani T, Rufner R, Kimura T. (1987). High resolution cryo-scanning electron microscopy of processed cheese, gels and protein particles. *Reports Res. Lab.*, Snow Brand Milk Prod. (No. 85): 225-226. Keywords: cheese, cryo-microscopy, freeze fracture, gel, process cheese, protein, SEM.
869. Yamamoto A, Toyosaki T, Mineshita T. (1986). A mechanism for non-Newtonian flow of milk in a capillary. *J. Text. Studies* 17: 205-220. Keywords: casein, emulsion, fat, globule, LM, micelle, milk, rheology, SEM, viscometer, viscosity.
870. Yang CST, Taranto MV. (1982a). Morphological and textural comparisons of soybean Mozzarella cheese analogs prepared with different hydrocolloids. *Food Microstruc.* 1: 223-231. Keywords: adhesiveness, cheese, fat, fracturability, gel, gelatin, gums, hardness, imitation cheese, Instron, Mozzarella cheese, soy, stretchability, texture, TPA, viscosity.
871. Yang CST, Taranto MV. (1982b). Textural properties of Mozzarella cheese analogs manufactured from soybeans. *J. Food Sci.* 47: 906-910. Keywords: cheese, fat, gel, gelatin, gum, imitation cheese, Instron, Mozzarella cheese, protein, soy, stretchability, texture, TPA, viscosity.
872. Yiu SH. (1985). A fluorescence microscopic study of cheese. *Food Microstruc.* 4: 99-106. Keywords: Blue cheese, Camembert cheese, casein, Cheddar cheese, cheese, crystal, fat, fluorescence microscopy, globule, glutaraldehyde, LM, micelle, Mozzarella cheese, phosphate, process cheese, ripening.
873. Zalewska S, Swiderski F. (1984). Influence of physico-chemical properties of milk protein concentrates on the stability of low fat mayonnaise emulsions. *Acta Alim. Polonica* 10: 255-263. Keywords: emulsion, fat, mayonnaise, milk, protein, stability.
874. Zirbel F, Kinsella JE. (1988). Factors influencing the rheological properties of gels made from whey protein isolate. *Milchwissenschaft* 43: 691-694. Keywords: cohesiveness, compression, deformation, gel, hardness, Instron, pH, protein, rheology, springiness, texture, TPA, whey.
875. Zittle CA, Thompson MP, Custer JH, Cerbius J. (1962). κ -Casein- β -lactoglobulin interaction in solution when heated. *J. Dairy Sci.* 45: 807-810. Keywords: casein, lactoglobulin.
876. Zoon P. (1988). Rheological properties of rennet induced skim milk gels. Ph.D. Thesis, Wageningen Agricultural University, Netherlands. Keywords: cheese, deformation, enzyme, gel, milk, modulus, rennet, rheology, skim milk.
877. Zoon P, Roefs SPFM, deCindo B, Van Vliet T. (1990). Rheological properties of skim milk gels at various temperatures; interrelation between the dynamic

moduli and the relaxation modulus. <i>Rheol. Acta</i> 29: 223-230. Keywords: den Otter rheometer, dynamic testing, gel, milk, modulus, rennet, rheology, skim milk, viscoelasticity.	Alvarez-Guerrero NR	754
878. Zoon P, Van Vliet T, Walstra P. (1988a). Rheological properties of rennet induced skim milk gels. 1. Introduction. <i>Neth. Milk Dairy J.</i> 42: 249-269. Keywords: den Otter rheometer, dynamic testing, enzyme, gel, milk, modulus, protein, proteolysis, rennet, rheology, skim milk.	Amantea GF	16
879. Zoon P, Van Vliet T, Walstra P. (1988b). Rheological properties of rennet induced skim milk gels. 2. The effect of temperature. <i>Neth. Milk Dairy J.</i> 42: 271-294. Keywords: dynamic testing, gel, milk, modulus, rennet, rheology, skim milk.	Amunson CH	767
880. Zoon P, Van Vliet T, Walstra P. (1988c). Rheological properties of rennet-induced skim milk gels. 3. The effect of calcium and phosphate. <i>Neth. Milk Dairy J.</i> 42: 295-312. Keywords: casein, clotting, dynamic testing, gel, micelle, milk, modulus, phosphate, rennet, rheology, skim milk, syneresis.	Anderson BA	43
881. Zoon P, Van Vliet T, Walstra P. (1989a). Rheological properties of rennet induced skim milk gels. 4. The effect of pH and NaCl. <i>Neth. Milk Dairy J.</i> 43: 17-34. Keywords: dynamic testing, gel, milk, modulus, pH, rennet, rheology, skim milk.	Anderson M	17-20, 77
882. Zoon P, Van Vliet T, Walstra P. (1989b). Rheological properties of rennet induced skim milk gels. 5. Behavior at large deformation. <i>Neth. Milk Dairy J.</i> 43: 35-52. Keywords: deformation, dynamic testing, fracturability, gel, milk, pH, rennet, rheology.	Andren A	21
	Andrews AT	17, 22, 77
	Annibaldi S	574
	Antila M	811
	Arbuckle WS	23, 24
	Armishaw RF	25
	Arnott DR	609
	Ashima T	9
	Aston J	153
	Atkin G	26
	Attia IA	282
	Auerswald D	304
	Awadhwal NK	27
	Awasthy BR	140
	Bachmann M	227
	Baer A	50, 51
	Baert J	567
	Bagger LH	163
	Bagley EB	28, 29, 134, 622
	Bain JM	756
	Baird L	349
	Balachandran R	45
	Baldi E	513
	Ballman H	31
	Ballmann H	30
	Banks JM	562
	Barabas J	32
	Barfod NM	476, 477
	Barnes HA	33
	Baron M	728
	Baron VM	34
	Bartsch A	35
Abd El-Salam MH	Basch JJ	129, 806, 807
Abrahamson K	Bassier A	567
Acierno D	Battistotti B	55, 56
Adachi S	Beaulieu C	284
Adda J	Bechtel DB	36
Addo F	Becker T	37
Aguilera JM	Beckett DC	525, 526
Aicken K	Bennasar M	826
Aita S	Bennema P	828
Akabane H	Berends E	330
Akers RM	Berendsen PB	38
Al-Fayadh MH	Berger KG	39-42
Alaïs C	Bergere JL	501
Alcala M	Berkovic K	489
Ali MZ	Berlin E	43
Alichanidis E	Berry GP	154, 155
Allan-Wojtas P	Betscher JJ	417
Altobelli G	Beveridge T	44

A U T H O R I N D E X

Abd El-Salam MH	1-3
Abrahamson K	4
Acierno D	539
Adachi S	365
Adda J	5
Addo F	144, 539, 540
Aguilera JM	6-8
Aicken K	53
Aita S	464
Akabane H	787
Akers RM	578
Al-Fayadh MH	10
Alaïs C	502
Alcala M	530
Ali MZ	11, 12
Alichanidis E	17
Allan-Wojtas P	13-15, 315, 398, 399, 413
Altobelli G	81

Structure and Rheology of Dairy Products: Bibliography

Bhandari V	45	Bynum DG	115
Bianchi F	55, 56	Calapaj GG	116
Biggs DA	212-214	Calvo N	358
Birkett RJ	168	Calzada JF	673
Bishop JR	46	Campanella OH	117-121
Bistany KL	47	Cardenas R	470
Blackman B	189	Cardwell JT	122
Blake JA	48	Caric M	
Blanc B	49-51, 678-682, 686, 687, 689	Carlson A	127
Blanshard JMV	52	Carroad PA	274, 275, 624, 625
Blonk JCG	332	Carroll BJ	128
Bloomfield VA	518	Carroll RJ	129-132
Board PW	53	Carter EJV	133
Bochenek A	208	Casey M	50, 51
Bodine AB	46	Casiraghi E	
Bohac V	54	Casiraghi EM	135, 521, 522, 631-633
Boisclair RB	284	Castelao E	134, 136
Bollinger UK	552	Cawston TE	614
Bonsey AD	754	Cazzola F	18
Boskamp MJ	329	Cerbius J	607
Bosman F	594	Chang CM	875
Boswell RT	799	Chang HS	137
Both P	759, 834	Chang YS	361
Bottazzi V	55, 56, 592	Chaplin LC	138
Bourne MC	57-60, 224	Chari SS	139
Boyd JV	61	Chawla P	140
Brakenhoff GJ	332	Cheeseman GC	141
Brandt MA	62, 784	Cheftel JC	18
Bray F	63	Chen AH	750
Breene WM	64	Chen SL	142
Brennan JG	65	Chen Y	795
Bringe NA	66	Chianese L	143
Brinkhuis JA	760	Cho YK	144
Britten M	635	Chojnowski W	145
Brody AL	652, 653	Christianson DD	599
Brooker BE	17-19, 22, 67-80, 173, 294, 296, 436, 534, 562, 754	Chu CF	29, 134
Brosio E	81	Chua TEH	146
Brown EM	82	Chung KH	147
Brown RJ	545	Clark CJ	148
Brunner JR	225	Cole WM	142
Buchheim W	4, 63, 83-97, 304, 374, 375, 449, 452, 476, 543, 544, 598, 639-641, 644, 713- 717, 722, 763, 793, 861	Coleman JA	534
Buhlmann C	775, 776	Colvin JR	62
Bullimore BK	40, 41	Combs DH	672
Bullock DH	605	Combs WB	191
Buma TJ	98-112	Comer F	857
Buning-Pfau H	35	Comstock SH	401
Burgess KJ	201, 202, 805	Contarini A	60
Burley RW	756	Cook DR	357, 536
Burlingame-Frey JP	113	Cooney CM	149
Burnett J	729, 730	Cooper HR	247
Burton H	114	Copius Peereboom JW	150
Butcher DW	169	Coppen FMV	151
		Corrieu G	152, 731, 732
		Creamer LK	627
		Cue RI	153-160, 307, 497, 498
			577

David N. Holcomb

Culioli J	161, 162	El-Safty MS	218
Cussler EL	461	El-Shabrawy SA	219, 283
Custer JH	875	El-Shibiny S	2, 600
Damman AJ	760, 761	El-Soda M	696
Danmark H	163, 564, 565	El-Zayat AI	218
Dannenberg F	164, 165, 381	El-Zayat I	220
Darling DF	166-169	Elliott JH	215-217
Davey KR	170, 171	Elsaesser JL	525
Davies G	788-790	Emmons DB	221-223, 243, 321, 402-405, 525, 526, 773, 832
Davies WL	172	Endo M	581
Davis FL	173	Ernstrom CA	221, 661, 701
Davis JG	172, 174	Escueta EE	224
Davison S	651-653	Esteban MA	530
Dawes CJ	175	Euber JR	225
De Boer A	594	Evans AL	429
De Graaf JJ	846	Evans EW	493
De Jong L	177-180	Eyer H	226
De Koning PJ	181	Ezzat N	696
De Wit JN	193, 194	Falk G	91
Dearden DV	172	Farah Z	227-229
DeCindio B	877	Farah-Riesen M	228
Dejmek P	4, 90, 176, 308, 309, 615	Farkye NY	230
DeMan JM	141, 182-189, 302, 606, 607, 609, 818	Farrell HM Jr	129, 130, 231, 232, 799
DeMan L	189	Faur L	233
Dentener-Kikkert A	814	Fearon AM	234, 235
Dervisoglu M	190	Fedrick IA	236
Desai HK	406	Fekry SA	219
Descamps O	191	Fennema O	137
Desmazaud MJ	192	Fernandez del Pozo B	237
Dewan RK	518	Fernandez-Martin F	238
Di Nola A	81	Fernandez-Salguedo J	530
Dick J	628	Fichtali J	239-242
Dickie A	462, 463	Findlay CJ	243
Dickinson E	195-197	Finney EE Jr	244
Dill CW	558	Fiorentini R	513
Dixon BD	198-200	Flanagan JJ	806
Djordjevic J	655	Fleming K	245
Dobbs JE	187	Fluckiger E	49, 210, 246, 682, 775, 776
Donnelly WJ	544	Foegeding EA	561
Downey G	201, 202	Foley J	247, 248
Drake B	203	Ford GD	249
Driessen FM	181	Ford LD	345
Dudenkov Y	769	Ford RH	425
Duitschaeve CL	204	Forman L	250
Dulley JR	236	Formal J	208
Dunkerley JA	205	Fox KK	251
Dunkley WL	147, 206, 274, 275	Fox PF	230, 252-259, 554
Duthie CM	442, 443	Franke WW	265, 426
Dylewski DP	424, 425, 427, 428	Frazeur DR	260, 261
Dziezak JD	207	Frede E	262, 263
Dziuba J	208	Freeman NW	264, 529
Eberhard P	209-211, 682	Frennborn P	4
Edamura R	812	Freudenstein C	265
Eigel WN	265	Friberg SE	495
Eino MF	212-214		

Structure and Rheology of Dairy Products: Bibliography

Friedman HH	266, 784	Hansen AP	420, 777, 778
Froelich DA	414	Hansen PMT	343, 519
Frunzi A	144	Haque Z	515
Fukada E	268	Hardy J	311, 430, 431, 568
Fukui Y	267	Hare LB	601
Fukushima M	268	Harper JM	312
Galoppini C	513	Harper MK	251
Gantar M	124	Harrington RB	260, 261
Ganz AJ	215, 216	Hartmann PE	507, 508
Garg FC	303	Harvey CD	313
Garnier J	269	Harwalkar VR	314-322, 400, 407, 408, 415
Garnot P	270, 271	Hashizume K	323, 324
Gault P	272	Hassan HN	325
Gavaric DD	273	Hatakeyama E	589
Gaya P	237	Hatfield DS	326, 533
Gilles J	156, 158, 497-499	Hayakawa M	327
Glaser J	274, 275	Hayakawa S	327
Glatelli H	775, 776	Heap HA	499
Glover FA	297, 755	Heathcock JF	328
Goff HD	276-279, 515, 741, 742	Heertje I	329-333, 383, 829
Goh HC	280	Heid HW	426
Gomez R	281	Heintzberger H	334
Gooda E	282	Hellinga C	335
Gordon WG	799	Hendrickx HACM	331, 332
Gortemaker FH	329	Henstra S	111, 112, 336, 718
Gouda A	283	Herian K	337
Gould IA	417	Hermannsson A-M	338, 339
Goulding IC	196	Hernqvist L	763
Goulet J	284	Herreid EO	862
Grandison AS	249, 291	Herrick JP	340
Green CE	217	Herzer FH	122
Green ML	285-298, 491, 492, 533, 755	Hickey MW	301
Greig RIW	376	Hicks CL	664, 810
Griffin MA	20	Hill AR	741, 742
Griffin MCA	299	Hill CG Jr	127, 767
Griffin WG	299	Hill VA	293
Gripion JC	5, 192, 820	Hindle EJ	341
Grooms DJ	519	Hinz A	91
Grosclaude G	470	Hobbs DG	22, 78, 173, 292, 293, 298, 342, 436
Gruenwedel DW	300	Hokes JC	343
Guiney J	259	Holcomb DN	344, 345
Guirguis N	301	Holdsworth SD	346
Guo JS	138	Holsinger VH	347, 586, 806, 807
Gupta S	302	Holsinger VN	251
Gupta SK	303, 406, 611, 612	Holt C	79, 348-350, 562
Guthy K	304, 305	Hong Y-H	305
Hadziyev D	770	Hood LF	224
Haga S	591	Hori T	351, 352, 432
Hagborg DW	526	Horisberger M	353, 354
Hagrass AE	219	Hossain MA	355
Halim HK	306	Hostettler HJ	356
Hall DM	307	Hough G	357, 358, 536
Hallstroem M	308, 309	Houghton G	803
Hamann DD	420, 777, 778	Houska M	735
Hamza-Chaffai A	310	Huebner VR	359, 360

David N. Holcomb

Humphrey R	608	Kessler HG	6, 7, 164, 165
Hung LT	361	Kfouri M	430, 431
Hurst VJ	850, 851	Kikuchi E	432, 433
Hutton JF	33	Kilbertus G	502
Imhof K	356	Kim BY	434, 435
Imoto EM	362, 503	Kimber AM	436
Inagaki T	363, 364, 580	Kimura T	437-441, 472, 793, 868
Irvine DM	212-214, 605	Kindstedt PS	442, 443
Irwin WF	142	King N	444
Itoh T	365	Kinsella JE	66, 278, 279, 419, 434, 435, 515, 874
Iwata S	478	Kirchmeier O	445-447
Iyer M	157	Kirst E	448
Izutsu T	792, 793	Kitchen BJ	547
Jablonka MS	366, 367	Klarenbeek G	194
Jackman RL	368	Kleyn DH	601
Jamrichova S	369-371	Kloek M	833
Janssen MMT	372	Klok HJ	760, 761
Janzen JJ	46	Klostermeyer H	305, 449-451, 809
Jarasch E-D	426	Knighton D	153
Jasik K	373	Knoop A-M	452-458
Jelen P	92, 374-376	Knoop E	453, 454, 459
Jenness R	245, 313, 377, 845, 864	Kobayashi H	432, 433
Jensen LA	767	Kocon J	557, 762
Jeon IJ	517	Koenraads JPJM	335
Johnson EA	657	Kokin JL	47, 190, 460-463
Johnson ME	378, 593	Kondo Y	464
Johnston DE	234, 235, 379, 380	Koops J	334, 717
Jones L	44	Korolczuk J	272, 465-470
Jones PN	171	Kosikowski FV	471
Joniau M	567	Koutake M	472
Jordan WK	277-279, 515, 803	Kovacs P	473
Jost R	381	Kowalchyk AW	474
Jowitt R	65, 382	Kramer A	475
Juriaanse AC	383	Kristiansen KR	556
Kahn EL	785	Kristoffersen T	417
Kako M	438, 765	Krog N	476, 477
Kakuda Y	606-610	Kroger M	855
Kalab M	14, 15, 124-126, 222, 273, 315-321, 376, 384-416, 520, 551, 552, 603, 661, 701, 788-790, 822	Kudo S	478
Kanaya K	441	Kulkarni S	479-486
Kaper J	181	Kulshretha M	827
Kapsalis JG	417	Kusakabe I	432, 433
Kataoka K	418	Kuskis A	53
Katoh M	365	Labuza TP	697
Katsuta K	419	Lachance O	487
Kawanari M	420	Lacroix C	221, 487
Kawanishi G	796	Ladisch MR	690
Kearney RD	543, 544	Laezza P	144
Kebary KMK	421-423	Lai HM	488
Keenan TW	265, 424-428, 541	Lalic LM	489
Keeny M	864	Lambert I	805
Kemp N	204	Lananchy P	775
Kemp P	866	Langevin P	191
Kennedy GF	771	Langley KR	294, 490-494
Kerr TJ	429, 850-852	Larkin JW	142
		Larmond E	222

Structure and Rheology of Dairy Products: Bibliography

Larose JAG	415	Marziali AS	577
Larsson K	495	Masaoaka K	591
Latreille B	635	Masi P	144, 538-540
Lavanchy P	776	Mather IH	427, 541
Law BA	496	Matheson AR	155, 159
Lawrence RC	156, 158, 497-499	Matouskova E	250
Lazaridis NH	500	Matsumoto N	589
Le Bars D	501, 820	Mattick ATR	172
Le Gallo C	676	Maubois J-L	469, 470
Lee BO	502	Mayes JJ	542
Lee C-H	362, 503-506	McCauley I	507, 508
Lee CM	148	McGann TCA	543, 544
Lee CS	507, 508	McLennan WD	524
Lee K-W	509	McMahon DJ	545
Lee S-Y	510	McMaster TJ	546
Lee Y	511	McPherson AV	547
Lee YP	138	Medina M	237
Lelievre J	512	Mehanna NM	548
Lelivre J	157	Melnychyn P	131
Lencioni L	513	Merkenich K	450, 451, 809
Leon F	530	Meyer A	549
Leong SL	518	Miki E	267
Leunis M	330	Millard D	493
Lewis MJ	514	Milliken GA	517
Li-Chan E	516, 573	Mineshita T	869
Liboff M	279, 515	Minihan A	829
Lillford P	52	Mitchell JR	550
Lin JCC	517	Mittal BK	827
Lin SHC	518	Miyamoto T	418
Lindamood JB	519	Modler HW	410, 411, 551, 552
Lowrie RJ	222, 409, 520	Mohamed MO	553
Lucassen-Reynders EH	331	Mohammad KS	554
Lucisano M	135, 521, 522, 631-633	Mohsenin NN	555
Lukesch A	50, 51	Molander E	556
Luyten H	523	Molska I	557
MacGibbon AKH	524	Monnet V	820
Mackie DA	525, 526	Moon T-W	428
Macrae R	628-630	Moor U	211, 682-688
Mada M	478	Moore C	20
Magdalenic B	489	Moore PL	558
Mahaut M	272, 466-468	Moran JJ	48
Mair-Waldburg H	527	Moran MA	247
Malecki GJ	651	Moran SV	292, 293
Maleeff BE	806, 807	Moro O	358
Mangino ME	264, 343, 528, 529	Morr CV	510, 518, 559-561
Manning DJ	295	Morris HA	245, 313, 421-423, 553, 562,
Manson W	562		590, 705, 724, 797, 857
Marcos A	530	Morrow CT	555
Marshall RJ	294, 296, 297, 531-533	Mortensen BK	563-565
Marshall RT	511	Moskowitz HR	566
Marshall VM	534	Mottar J	567
Marth EH	113, 864	Mpagana M	431, 568
Martin RW Jr	345, 535	Mughis OA	65
Martinez E	357, 536	Muir DD	350
Martinou-Voulasiki IS	537	Mulder H	569, 570, 602, 658

Mullen K	609	Park J	604
Muller HR	571	Parnell-Clunies EM	605-610
Munro PA	366, 367	Patel AA	303, 611, 612
Murakami K	432, 433	Patil GR	303, 406
Musselwhite PR	572	Patterson DR	206
Nagai S	591	Patton S	97, 801
Nagatani T	868	Pauletti MS	613, 614
Nakae T	418	Paulsson M	615
Nakahama N	787	Payens TAJ	616, 617, 719
Nakai S	9, 16, 516, 573	Peleg M	117-121, 146, 604, 618-623, 656, 657, 673, 677, 757
Nakajima I	796	Peri C	136
Nakamura R	327	Perry CA	624, 625
Nakao S	472	Peters K-H	262, 263, 375, 455-458, 642, 643
Nanni M	574	Petrilli P	144
Nederlof J	331	Phillips IG	129
Needs EC	19	Phipps LW	626
Neve H	575	Phipps-Todd BE	398, 413
Ney KH	576	Piazza L	136
Ng-Kwai-Hang KF	577	Picque D	627
Nichols D	409, 520	Pinthong R	628-630
Nick B	775, 776	Pisanelli AM	513
Nickerson SC	578	Pixton SW	849
Nickerson TA	579	Politis I	577
Nishijima J	580	Poll JK	720
Noda K	581	Pompei C	135, 521, 522, 631-633
Noda M	582-584, 765	Popplewell LM	121, 634
Nolan EJ	585, 586, 807	Pouliot Y	635
Noomen A	587, 588	Pour-El A	636
Normand MD	623, 657	Powrie WD	137
Nukada K	418	Prasad DN	45, 740, 802
Nunez M	237	Precht D	93, 637-644
Nutting GC	132	Prentice JH	436, 645-649
O'Connell C	248	Price JC	299
O'Neil JM	601	Price WV	223
Ochi T	589	Prins A	650
Ogden LV	590	Proctor BE	651-653
Ohashi T	591	Prokopek D	94, 458, 861
Ohba S	796	Prosel Z	654
Okigbo LM	662	Puhan Z	37, 210, 655
Olson NF	115, 160, 270, 271, 378, 474, 591-593, 767	Purkayastha S	656, 657
Olthoff LW	594	Raadsveld CW	658
Omar MM	3, 595-600	Rajorhia GD	303
Ooraikul B	770	Ramamurthy MK	479-486
Oortwijn H	602, 846	Rammell GG	659
Oosthuizen JC	733	Rank TC	270
Ordloff D	31	Rao MA	725
Ozimek L	208, 770	Rasper VF	188
Pallansch MJ	43, 251	Rautavaara J-A	811
Palo V	412	Rayan AA	660, 661
Paquet A	603	Rector D	419
Paquin C	284	Reniers DJ	800
Parekh J	199	Rentsch F	776
Park E-S	509	Rha C	362, 503-505
Park HJ	766	Rhee KC	795

Structure and Rheology of Dairy Products: Bibliography

Richardson GH	662	Segura J	358
Richardson T	543	Senouci A	734
Richmond P	546, 663	Seo A	510
Richter RL	558	Sestak J	735
Riddell-Lawrence S	664	Shama F	736-738
Riesterer BA	378	Shankar PA	173
Rigsby WE	429, 851	Shannon CW	739
Rippe JK	442, 443	Sharma DK	740
Robert F	665	Sharma SK	741, 742
Roberts HA	517	Shaw DJ	743
Robinson PK	791	Shen HS	361
Robinson RK	11, 12, 666	Shenton AJ	859
Rodriguez-Marin A	237	Sherbon JW	744
Roefs SPFM	815, 877	Sherman P	26, 61, 133, 161, 162, 187, 280, 665, 736-738, 745-749, 860
Roetmann K	667	Shieh JJ	586, 807
Rohm H	668-671	Shiioki Y	584, 765
Rollema HS	181	Shimada K	750
Rose D	672	Shimizu M	751
Rosenau JR	121, 340, 500, 604, 634, 673, 757	Shimoda K	472
Rosenberg J	143	Shinozaki K	796
Rosset J	381	Shoemaker CF	306, 854
Rotwell J	629, 630	Sidiropoulos D	752
Rousseau M	674-676	Sieber R	689
Roux C	820	Simonin C	752
Roy I	677	Singh CP	27
Ruegg M	49-51, 211, 229, 678-689, 752, 776	Sjollema A	856
Ruettmann KW	690	Skeie SB	753
Rufner R	868	Skinner EZ	62
Sabbag N	613, 614	Skudder PJ	754, 755
Sagara Y	438, 439, 472	Skura BJ	16
Saito Z	691-693	Sleigh RW	756
Salam AE	282, 694-696	Smieta Z	599, 786
Salem SA	282	Smith AC	546, 663, 734
Saltmarch M	697	Smith AK	141, 204, 610
Samuelsson EJG	698	Smith AM	9
Sanchez RM	477	Smith CE	757
Sargent AG	404, 405, 414	Smith DE	723
Sargent JA	699	Smits P	333, 758, 829
Sasaki M	265	Snoeren THM	759-761
Sato T	323, 324, 472	Sobczak E	762
Savello PA	700, 701	Soderberg I	763
Schaffer B	779	Sogo Y	432
Schaier RW	830	Somsen DJ	335
Scharpf LG Jr	702-704	Son H-S	506
Schellhaass SM	705	Sone T	268, 764, 765, 792
Schilt P	246	Song JC	766
Schimmin PD	706	Spangler PL	767
Schmidt DG	95, 336, 707-722, 759	Speers RA	768
Schmidt KA	723	Sperling LH	138
Schmidt RII	245, 724	Spivoka LV	769
Schmidt SJ	488	Sriarokkul S	770
Schnider J	688, 776	Stadler J	265, 426
Schwartzberg HG	725	Stainsby G	197
Schwarz K	798	Staley LM	771
Scott Blair GW	34, 726-733		

David N. Holcomb

Stanley DW	8, 188, 212-214, 243, 772-774, 812	Van Gorkom M	830
Stechina D	613, 614	Van Hooydonk ACM	721
Steffen C	775, 776	Van Kleef F	329
Steiger G	49, 775, 776	Van Kreveld A	813
Stein J	356	Van Markwijk BW	834
Stern P	250, 654	Van Vliet T	523, 615, 814-817, 847, 848, 877-882
Sultan NE	219		330
Sutherland BJ	542	Van Zeyl WJM	818
Swartzel KR	420, 777, 778	Vasic I	5, 819, 820
Swiderski F	873	Vassal L	821
Szakaly S	779	Vaughan JG	353
Szczesniak AS	266, 780-785	Vauthay M	613, 614
Szpendowski J	786	Veits V	822
Tada M	267	Veliky IA	823-825
Takahashi T	581	Venier A	822
Takano M	787	Verhey JGP	221
Tamime AY	788-791	Verret P	826
Taneya S	438, 440, 441, 792, 793	Vetier C	827
Tanimoto M	439	Vijayananda P	294
Taranto MV	794, 795, 870, 871	Vincent JFV	333, 829, 830
Tarodo de la Fuente B	826	Visser J	828
Tatsumi K	796	Visser RA	188, 415, 831-833
Teggatz JA	797	Voisey PW	21
Temple DM	494	Von Reedtz C	354
Ternes W	798	Vonlanthen M	825
Teuber M	575	Vos EA	322, 834
Thiel F	718	Vreeman HJ	868
Thomasow J	96	Wada M	572
Thompson LU	800	Walker DA	722, 815-817, 835-848, 878-882
Thompson MP	131, 132, 799, 807, 855, 875	Walstra P	372, 523, 570, 590, 602,
Thomsen LC	359, 360		429, 850-852
Thorpe JD	662	Walters K	464
Timmen T	801	Wan PJ	472
Titlow BD	473	Warburton S	868
Tjan SB	829	Washam CJ	853
Todd RL	852	Watabe T	854
Tokley R	856	Watanabe A	855
Tomar SK	802	Watanabe T	541
Tong PS	803	Watt IM	856
Tornberg E	804	Wayne JEB	857
Touhy JJ	805	Weaver JC	651
Toupin CJ	240-242	Weber K	97
Toyosaki T	869	Weerstra R	334
Tung MA	44, 768, 771, 774	Weik RW	341
Tunick MH	806, 807	Welch M	300
Turvey A	78, 298	Wells K	40-42, 859
Uchida Y	472	Welsch U	860
Uhlmann G	451, 809	Werner H	266
Ulberth F	808	Westerbeek D	453, 454, 861
Ustunol Z	810	Wheelock JV	886
Usui-Rauva E	811	Whitaker JR	341
Van Brouwershaven JH	758	White GW	300
Van de Voort FR	239-242, 812	Whitehead J	860
Van der Bilt A	594	Whitney JE	266
Van der Vlist P	332	Wiechen A	

Structure and Rheology of Dairy Products: Bibliography

Wigmore A	496	719, 775, 855
Williams T	200	Antibody
Williamson DT	768	Appenzeller cheese
Willis A	294	Apple
Wilson HK	862	Apple butter
Windhab E	863	Apple sauce
Wolfe F	770	ASTM grease penetrometer
Wong NP	864	Baker compressimeter
Woodford TA	425	Ball compressor
Wooding FBP	865, 866	Bingham model
Wortmann A	867	Bird-Leider model
Wright WB	40, 41	Blanc mange
Yada RY	9, 368, 742	Bloom gelometer
Yamada M	868	Blue cheese
Yamamoto A	869	Body
Yamauchi K	591, 751	260, 261, 360, 500, 587, 596, 678, 727, 739, 807
Yang AF	399	Bohlin rheometer
Yang CST	794, 870, 871	Bologna
Yiu SH	416, 552, 872	Bostwick consistometer
Yoon S	509	Brabender
Yoshino U	862	Brabender instrument
Younis MF	790	Brick cheese
Yun J	416	Brie cheese
Zadow JD	205	Brine cheese
Zaher M	400	Brittleness
Zalewska S	873	Brookfield
Zanoni B	631, 633	510, 537, 601, 635, 777, 778
Zerfididis GK	537	Bubble
Zherebtsov N	769	44, 70, 74, 75, 77, 168, 583, 584, 638, 650, 676, 765, 840
Zirbel F	874	Buffalo milk
Zitny R	735	10, 144, 218, 219, 303, 406, 480, 481, 483-486, 548, 740, 802
Zittle CA	875	Butter
Zmarlicki S	557	8, 23, 27, 53, 69, 90, 93, 103, 140, 150, 151, 163, 171, 174, 183-185, 187, 198-200, 215, 217, 226, 233-235, 244, 247, 250, 262, 263, 302, 327, 330, 332, 359, 360, 373, 383, 394, 417, 420-422, 447, 460, 462, 463, 471, 479, 481-486, 502, 524, 550, 564, 565, 569, 570, 611, 622, 631, 638-644, 646, 695, 698, 699, 727, 749, 774, 779, 808, 818, 867
Zoon P	815, 876-882	Butter oil
Zuraw J	786	421, 422

S U B J E C T I N D E X

Adhesiveness	60, 142, 234, 235, 267, 303, 325, 414, 506, 558, 593, 780, 784, 795, 870	Butterfat	84, 247, 571
Adulteration	344	Buttermilk	83, 389, 391, 395, 401, 471, 622, 755, 769
Agar	13, 15, 18, 22, 49, 67, 68, 137, 275, 285, 292, 336, 342, 354, 385, 391, 394, 396, 405, 414, 415, 428, 515, 553, 607, 622, 740, 754, 770	Calcium	5, 37, 73, 74, 126, 156, 158, 185, 194, 240, 241, 289, 367, 378, 385, 395, 424, 439, 450, 452, 458, 470, 499, 509, 518, 531, 533, 548, 562, 581, 592, 607, 616, 672, 682, 685, 690, 710, 714, 719, 766, 769, 770, 799, 826, 829, 830, 844, 851
Agarose	515	Calcium lactate	55
Albumin	81	Calcium phosphate	55, 72, 139, 333
Alfalfa	513	Calin cheese	467
Alginate	45, 202, 822	Calorimetry	686
American Can pea tenderometer	781	Camel milk	11, 227-229
American cheese	362, 503	Camembert cheese	5, 219, 395, 418, 431, 445, 452, 455, 456, 499, 503, 568,
American process cheese	121, 143, 146, 702		
Amino acid	50, 123, 194, 220, 230, 246, 517, 560, 562, 595-597, 599, 600, 603, 690, 691,		

- 671, 674, 689, 753, 820, 872
Capillary extrusion 48
Capillary rheometry 546, 734, 757
Caprine milk 86
Caramel 328
Carbohydrate 67, 97, 344, 534, 813
Carrageenan 201, 404, 500, 759
Casein 2, 6-8, 10-12, 16-20, 22, 25, 32, 38-40, 42,
 43, 46, 49-51, 63, 66, 67, 69-73, 75, 77-81, 83,
 84, 87, 88, 90, 94-96, 109, 112-114, 116, 123,
 127, 129-132, 144, 154, 157, 160, 164, 165, 169,
 177, 178, 180, 181, 194, 195, 197, 201, 202, 208,
 213, 220, 221, 228, 229, 231, 237, 239, 240-242,
 245, 246, 248, 249, 251, 258, 259, 264, 269, 275,
 277, 278, 280, 283, 285-288, 290-292, 295, 297,
 299, 304-306, 308, 315-317, 320, 321, 325, 328,
 329, 331, 333, 336, 343, 348-350, 353, 354, 361,
 366, 367, 375, 380, 385, 388-392, 394, 395, 397,
 398, 401, 402, 403-408, 411-413, 424, 435, 436,
 439-441, 444-446, 452-459, 465, 476-478, 497,
 499, 502, 506-508, 511, 515, 516, 518, 529, 531-
 533, 543-545, 548, 551, 553, 554, 559, 560, 567,
 570, 571, 573, 574, 577, 586, 590, 591, 593, 595-
 597, 599, 600, 602, 607, 610, 616, 617, 622, 634,
 635, 638, 647, 649, 655, 665, 668, 672, 675, 676,
 678, 679, 681, 683, 687, 689, 690, 691, 700, 701,
 707-715, 717-720, 722, 733, 740-742, 751, 754-
 756, 758-761, 766, 770, 774, 776, 786, 789, 796-
 800, 802, 804, 807, 811, 812, 814, 815, 824, 826,
 829, 830, 834, 835, 844, 845, 848, 861, 869, 872,
 875, 880
Casson model 190, 613, 768
Cell 23, 40, 67, 68, 71, 79, 390,
 397, 477, 507, 508, 681, 705
Cell centrifuge 17
Cellulose 215, 217
CEM coagulation monitoring device 810
CEM curd firmness device 664
Centrifugation 8, 18, 79, 95, 102, 128, 131,
 148, 154, 159, 169, 239, 251, 339, 342,
 350, 354, 361, 389, 394, 395, 401, 405,
 428, 478, 518, 541, 559, 567, 570, 581,
 609, 616, 691, 719, 740, 756, 758, 761, 829
Cereal 36
Cheddar cheese 5, 10, 16, 34, 61, 65, 67, 69, 78,
 80, 122, 124, 126, 134, 142, 152, 153, 156-
 158, 160, 170, 172, 196, 212-214, 221, 222,
 236, 243, 257, 267, 285, 287, 288, 290,
 294-296, 298, 307, 313, 340, 362, 378, 384,
 386, 388, 391, 392, 395, 403, 409, 410,
 415, 418, 436, 471, 499, 501, 503, 511,
 517, 520, 526, 533, 542, 555, 562, 576,
 577, 585, 593, 603, 619, 623, 647, 649,
 652, 656, 657, 659, 662, 677, 694, 695,
 702, 706, 727, 738, 739, 773, 774, 790,
 795, 807, 821, 850-852, 855, 857, 858, 872
Cheese 1-3, 5, 8, 10, 12, 16, 21, 34, 46, 50, 51,
 54-56, 60-62, 65, 67, 69, 71, 72, 78, 80, 84, 92,
 94, 96, 110, 115, 120-124, 126, 133-135, 138, 142-
 144, 146, 147, 150, 152, 153, 156-158, 160, 161,
 170, 172, 174, 177-180, 182, 184, 185, 192, 196,
 203, 206-215, 219-223, 230, 236-238, 243-246,
 255-257, 268, 274, 275, 280, 282-291, 294-298,
 307, 311, 313, 325, 326, 329, 332, 337, 340, 343,
 351, 352, 362, 363, 378, 384, 386-388, 390-392,
 394, 395, 397, 403, 409, 410-412, 414-416, 418,
 422, 423, 430-433, 436-440, 442, 443, 445, 446,
 449-452, 455, 456, 458, 463, 464, 466-468, 471,
 473, 496-503, 505, 506, 509, 511, 513, 517, 520,
 522, 523, 525, 526, 527, 530-533, 538, 540, 542,
 548-550, 552, 553, 555, 556, 558, 562, 568, 574-577,
 585, 586, 587-589, 591-600, 603-605, 618, 619,
 622-625, 631-634, 646-649, 652, 654, 656-662,
 664, 665, 666, 671, 673-676, 678, 682, 684, 685,
 687-690, 694-696, 700-704, 706, 711, 718, 726,
 727, 728, 731, 732, 737-739, 748, 749, 753, 757,
 766, 767, 769, 773-776, 781, 784, 790, 792, 793-
 796, 800, 806, 807, 809, 810, 819-821, 832, 833,
 847, 848, 850-852, 855, 857, 858, 861, 864, 868,
 870-872, 876
Cheese spread 215, 552
Cherry-Burrell meter 223, 526, 832, 857
Cheshire cheese 34, 152, 196, 296, 307,
 499, 531, 647, 649, 727, 807
Chewiness 60, 135, 142, 224, 303, 313, 325,
 509, 513, 558, 632, 780, 784, 805, 827
Chocolate 74, 76, 310, 392, 394, 648
Cholesterol 428, 535
Chromatography 11, 20, 21, 50, 51, 154, 249, 348,
 426, 493, 513, 544, 561, 562, 595, 616,
 628, 799, 858, 866
Chymosin 9, 21, 22, 127, 144,
 160, 270, 499, 573, 690, 710
Citrate 18, 124, 126, 136, 251, 395, 450, 451, 454,
 458, 543, 562, 655, 661, 672, 703, 709,
 719, 809, 830
Clotting 9, 21, 49, 115, 162, 176, 213, 227, 249,
 271, 292, 321, 433, 516, 533, 573, 592,
 597, 617, 678, 690, 742, 864, 880
Coagulation 3, 32, 34, 46, 66, 84, 88, 92, 115, 123,
 127, 128, 136, 153, 158, 159, 162, 164, 205, 213,
 214, 227, 240-242, 249, 251, 255, 256, 273-275,
 283-286, 290, 291, 293, 295, 301, 304, 323, 324,
 325, 338, 355, 369-371, 374, 376, 389, 392, 411,
 421, 435, 456, 469, 470, 500, 509, 511, 512, 516,
 533, 539, 542, 552-554, 577, 590, 597, 605, 616,
 662, 666, 676, 681, 690, 741, 742, 746, 767, 774,
 810, 827, 844, 860, 861, 864
Cocoa 76, 392
Coffee cream 4, 18, 91

Structure and Rheology of Dairy Products: Bibliography

Coffee whitener	90, 800	Crystallization	8, 23, 35, 39-43, 50-52, 54, 55, 63, 69, 72, 74, 78, 84-86, 89, 92, 93, 98, 99, 104, 110, 124, 125, 126, 141, 166, 185, 189, 195, 233, 246, 254, 276, 277, 327, 328, 330, 347, 357, 365, 378, 383, 388, 389, 391-395, 399-401, 439, 450, 451, 459, 476, 488, 515, 536, 548, 562, 570, 579, 593, 622, 637, 638, 640, 641, 644, 661, 667, 678, 692, 693, 697, 702-704, 711, 717, 722, 736, 746, 747, 749, 763, 769, 774, 809, 813, 821, 828, 842, 851, 852, 863, 872
Cohesiveness	60, 104, 107, 135, 142, 224, 234, 235, 303, 313, 325, 366, 367, 509, 511, 513, 558, 632, 780, 795, 805, 827, 874	Curd	2, 3, 10, 21, 32, 34, 38, 46, 67, 69, 71, 78, 80, 87, 88, 92, 115, 123, 124, 126, 136, 144, 147, 152, 157, 165, 176, 206, 213, 223, 239-241, 255, 256, 271, 274, 275, 283-287, 289-291, 295, 297, 306, 323, 324, 326, 343, 351, 352, 355, 366, 367, 388, 391, 392, 395, 403, 409-412, 414, 421, 430, 432, 436, 443, 452, 456, 457, 473, 499, 501, 509, 511, 512, 520, 525, 526, 531, 533, 542, 552, 574, 575, 585, 600, 601, 603, 605, 624, 625, 634, 662, 664, 676, 678, 684, 688, 695, 706, 726, 727, 731, 732, 742, 802, 807, 821, 827, 832, 848, 861
Colby cheese	142, 156	Curd granule junction	124, 126, 388, 391, 392, 395, 403, 409, 410, 520, 603, 684, 706
Colloid	8, 67, 73, 84, 130, 136, 168, 195, 197, 299, 350, 543, 545, 572, 681, 709, 710, 719, 720, 843, 845	Curd-O-Meter	601
Compression	6, 7, 16, 29, 60, 61, 104, 118, 120, 133-136, 143, 144, 146, 153, 156, 158, 160, 161, 196, 198, 222, 237, 280, 294, 296, 313, 326, 351, 362, 366, 406, 414, 420, 431, 432, 491, 492, 503, 506, 511, 519, 532, 540, 546, 556, 558, 566, 568, 585, 605, 619, 632, 647-649, 656, 657, 665, 673, 726, 750, 772, 773, 781, 795, 831-833, 858, 874	Deer rheometer	335
Confection	328, 546, 613	Deformation	6, 7, 27-29, 53, 57, 58, 119, 120, 135, 144, 146, 153, 174, 209, 210, 271, 294, 300, 337, 432, 474, 492, 501, 511, 513, 523, 525, 532, 539, 550, 565, 566, 568, 594, 622, 632, 647, 658, 677, 694, 726-728, 743, 772, 831, 833, 874, 876, 882
Consistometer	170, 171, 781	Delaware jelly tester	781
Contraves	445, 446, 466, 469, 669	Den Otter rheometer	877, 878
Copper	151	Denaturation	41, 114, 164, 165, 193, 194, 318, 338, 445, 528, 559, 609, 669, 761, 864
Core-and-lining	126, 316, 317, 320, 353, 392, 406, 411	Density	102, 103, 105, 108, 110, 316, 319, 444, 514, 786, 823, 825
Corn	397	Dextran	68
Cottage cheese	46, 61, 62, 71, 147, 182, 206, 221, 223, 244, 274, 275, 385-388, 390, 391, 471, 473, 525, 526, 624, 625, 662, 832	Digestion	38, 87, 516, 573
Coulter counter	7, 102, 106, 107, 305, 836	Domati cheese	1, 2, 220, 257, 325, 548, 595, 597, 600
Cream	4, 6, 12, 17, 19, 22, 23, 40, 53, 69, 75, 77, 83, 89-91, 93, 100, 103, 150, 151, 163, 166-169, 185, 195, 206, 225, 234, 309, 342, 360, 375, 389, 394, 422, 423, 447, 460, 471, 476, 477, 480, 481, 483, 484, 486, 490, 514, 535, 565, 570, 582-584, 590, 591, 622, 626, 637, 638, 642-646, 699, 721, 727, 748, 749, 756, 765, 779, 784, 808, 816, 822	Dough	29, 332
Cream cheese	60, 61, 80, 96, 170, 351, 362, 391, 394, 395, 410, 411, 414, 439, 460, 463, 503, 591, 784, 833	DSC	35, 194, 234, 338, 622, 772, 806, 807
Creaminess	414, 460, 461	DTA	39, 365, 842
Creep	8, 26, 33, 39, 119, 162, 419, 430, 550, 555, 582, 584, 620, 634, 645, 648, 649, 657, 729, 736, 743, 747, 765, 778, 860	Dulce de leche	357, 358, 536, 613, 614
Critical point drying	80, 212, 214, 219, 274, 386, 390, 406, 502, 515, 575, 610, 826, 851, 852	Duodenum	38
Cross linking	2, 227, 264, 280, 379, 380, 419, 512, 683, 814, 848	Dutch-type cheese	523
Cryofixation	83	Dynamic testing	28, 33, 47, 215, 434, 550, 586, 615, 622, 743, 749, 792, 815, 877-882
Cryomicroscopy	74, 75, 84, 85, 229, 328, 330, 392, 394, 399, 411, 412, 439, 532, 562, 582-584, 675, 699, 711, 718, 751, 765, 868	Edam cheese	65, 142, 384, 501, 658, 738, 739, 658, 665, 728, 750, 764, 778, 780, 807, 860
Cryoprecipitation	83	Elasticity	5, 27, 33, 142, 153, 158, 201, 202, 210, 233, 237, 272, 302, 325, 493, 499, 501, 513, 532, 550, 555, 556, 566, 568, 582, 593, 645, 647, 648, 658, 665, 728, 750, 764, 778, 780, 807, 860
Electrophoresis	18, 22, 50, 51, 144, 154, 156, 157, 159, 160, 169, 181, 225, 228, 230, 237,	Electrophoresis	18, 22, 50, 51, 144, 154, 156, 157, 159, 160, 169, 181, 225, 228, 230, 237,

	Fat-holding	339
	Fatty acid	1, 14, 32, 49, 73, 145, 220, 247, 297, 424, 426, 485, 583, 595, 596, 756, 775, 801, 842, 867
EM	Ferranti-Shirley viscometer	250, 654
	Ferritin	130
	Feta cheese	1, 12, 123, 257, 499
	Filipin	535
	Film	477, 843
	FIRA-NIRD extruder	198, 484, 524, 808
	Firmness	5-7, 10, 16, 21, 37, 40, 87, 115, 127, 133, 136, 147, 152, 161, 165, 176, 179, 198, 200, 206, 210, 222, 223, 226, 234, 244, 247, 271, 272, 283-285, 287-289, 316, 317, 323, 324, 327, 355, 366, 375, 387, 388, 398, 404, 406, 408, 414, 415, 420, 421, 432, 434, 469, 474, 502, 513, 519, 525, 526, 531, 533, 542, 553, 564, 568, 577, 593, 609, 612, 624, 625, 647, 649, 658, 661, 664, 669, 705, 726, 732, 742, 750, 774, 779, 788, 790, 832
	Flour	812
	Flow curve	149
	Fluorescence microscopy	124, 344, 372, 392, 412, 706, 872
	Foam	18, 19, 70, 75, 77, 103, 168, 195, 528, 583, 584, 638, 650, 843
	Formagraph	21
	Fracturability	60, 134, 234, 294, 296, 513, 517, 523, 870, 882
	Freeze fracture	6, 15, 39, 63, 75, 77, 83, 84, 87, 88, 90-93, 96, 195, 227, 229, 304, 316, 328-330, 333, 389, 390, 392, 394, 395, 399, 403, 414, 449, 452, 459, 477, 535, 544, 570, 595, 597, 598, 610, 638, 640, 644, 678, 679, 710, 712, 715, 722, 763, 765, 793, 822, 829, 835, 861, 868
	Freeze-etch	95, 716, 717, 721
	Friction	29, 104, 118, 133, 134, 461, 491
	Frosting	462, 463
	Fruit	26
	Fudge	328
	Funnel	335, 791
	Galactomannan	473
	Galactose	354
	Gamma-globulin	81
	Gas	44, 392
	Gel	6-8, 13-15, 22, 26, 29, 33, 44, 49, 73, 84, 115, 127, 131, 148, 154, 162, 164, 165, 169, 173, 176, 181, 208, 213, 228, 249, 270-273, 275, 285, 286, 289, 292-295, 310, 316, 317, 320, 321, 323, 324, 329, 333, 334, 338, 339, 352, 379-381, 384-386, 388, 390-392, 396-398, 402-405, 407, 408, 415, 419, 434, 445, 454, 456, 469, 470, 472, 474, 491-493, 504, 509, 512, 526, 528, 539, 550, 551, 561, 592, 607, 615, 635, 636, 669, 705-707, 710, 711, 713, 724, 729, 730, 740, 742, 749, 750, 756, 761, 764, 772, 774, 777, 778, 814, 815, 817, 822, 829, 845, 848, 868, 870, 871, 874, 876-882

Structure and Rheology of Dairy Products: Bibliography

Gelatin	29, 195, 407, 551, 572, 764, 870, 871	780, 784, 795, 805, 827, 857, 858, 870, 874	
Gelation	415	452	
General Foods gel characterization apparatus	781	238	
General Foods Texturometer	64, 65, 144, 266, 781	442, 510, 601	
Gibna Baida cheese	12	190, 358, 613, 735	
Globule	4, 6-8, 12, 14, 17-19, 22, 23, 38-42, 63, 69, 73-75, 77, 78, 80, 85-88, 90, 93, 97, 100, 101, 106, 107, 124, 126, 151, 166, 169, 195, 225, 265, 277, 278, 307, 328, 329, 336, 342, 381, 389, 391, 394, 395, 401, 403, 406, 411, 414, 421, 422, 424-428, 436, 439, 447, 455, 458, 459, 477, 502, 515, 528, 535, 541, 547, 570, 571, 582, 583, 590, 595-597, 602, 603, 607, 626, 635, 637-639, 641-646, 675, 676, 680, 681, 691, 701, 717, 718, 723, 736, 746, 749, 751, 752, 756, 763, 765, 793, 801, 814, 821, 836-841, 845, 846, 865, 866, 869, 872	399, 412	
Gloucester cheese	152, 647, 649, 737	Honey	48, 463
Glucono delta lactone	7, 78	HPLC	1, 16, 513, 561, 628, 858
Glucono-delta-lactone	275, 316, 317, 321, 323, 324, 390, 434	Human milk	86, 97, 116, 129, 265, 372, 516, 573, 681
Glutaraldehyde	6, 7, 12, 14, 18-20, 22, 44, 67, 71, 78-80, 84, 132, 159, 169, 204, 219, 220, 231, 264, 274, 292, 318, 325, 338, 353, 354, 361, 381, 385, 390, 394, 405-407, 409, 410, 412-414, 428, 436, 441, 457, 478, 511, 515, 529, 534, 544, 557, 567, 575, 590, 599, 600, 607, 608, 610, 678, 687, 688, 689, 714, 754-756, 770, 793, 807, 822, 826, 829, 852, 872	Humectant	487
Glycomacropeptide	616, 741, 742, 751, 848	Ice cream	8, 23, 24, 33, 39-42, 45, 63, 74, 75, 90, 145, 150, 244, 260, 261, 276-279, 300, 394, 395, 460, 477, 515, 519, 537, 550, 572, 579, 637, 666, 699, 723, 727, 736, 743, 745-749, 803, 821, 860, 863
Glycopeptide	341	Image analysis	11, 36, 532, 684, 688, 770
Goat milk	86, 372, 539	Imitation cheese	126, 245, 294, 340, 343, 500, 506, 511, 532, 586, 766, 794, 806, 870, 871
Gold	354	Immunology	130, 353
Golgi apparatus	73, 88, 424, 427, 710, 719	Impact testing	294, 491
Gouda cheese	54, 133, 142, 161, 280, 307, 325, 384, 388, 395, 418, 499, 501, 523, 594, 649, 665, 718, 737, 767	Inner Mongolian cheese	589
Grana cheese	55, 56	Instron	16, 27, 29, 48, 57, 58, 60, 61, 64, 65, 120, 121, 133, 135, 136, 142-144, 158, 161, 191, 201, 202, 205, 209, 210, 224, 235, 237, 243, 247, 255, 283, 284, 294, 303, 311, 313, 366, 373, 406, 420, 430, 431, 492, 493, 496, 498, 503, 509, 511, 513, 517, 519, 522, 532, 539, 540, 546, 553, 558, 561, 568, 585, 605, 619, 624, 625, 631, 634, 665, 682, 705, 735, 737, 738, 749, 750, 757, 761, 767, 773, 795, 805, 827, 833, 855, 858, 870, 871, 874
Grana Padano cheese	135	Interface	6, 18, 19, 23, 40, 41, 70, 75, 128, 169, 278, 331, 394, 477, 572, 590, 650, 721, 751, 804, 843
Granule	38, 124, 126, 360, 388, 392, 403, 409, 411, 574, 608, 610, 688, 706, 867	Iodine value	5, 360
Grittiness	41, 552	Ion beam sputtering	441
Gruyere cheese	51, 124, 126, 684, 687, 727, 775	Italian cheese	522, 540
Gum	68, 473, 537, 579, 871	Italicico cheese	135
Gumminess	60, 135, 142, 224, 303, 313, 325, 509, 513, 558, 632, 780, 784, 827	Karriesh cheese	3, 325
Gums	870	Kashkaval cheese	123, 282, 325, 395
Haake	89, 117, 149, 358, 606, 609, 613, 614, 682, 705, 723, 735, 761, 765, 777, 797	Kefir	204, 392, 534, 557, 762
Hardness	41, 60, 61, 135, 144, 153, 163, 170, 171, 180, 183, 189, 207, 224, 234-237, 263, 267, 302, 303, 313, 325, 327, 351, 359, 360, 418, 421, 479-481, 484, 486, 506, 509, 511, 513, 517, 519, 521, 524, 558, 593, 605, 621, 632, 646, 727, 728, 749, 767,	Ketchup	190, 462
		Koha	303
		Kramer cell	65, 177, 182, 206, 282, 475, 694-696, 739, 781
		La Serena cheese	237
		Labneh	789
		Lactalbumin	169, 194, 251, 392, 493, 567, 634, 716, 758, 826
		Lactate	69, 378, 548, 562, 850, 851
		Lactic acid	509, 513
		Lactic acid bacteria	56, 68, 204, 378, 388, 390-392, 395, 398, 557, 575, 587, 588, 628-630, 705, 762, 797
		Lactoglobulin	18, 82, 92, 164, 165, 169, 194, 251,

317, 318, 320, 392, 397, 405, 406, 491, 493, 560, 567, 615, 669, 710, 716, 740, 758, 826, 829, 875	Micelle	6, 12, 18-20, 22, 39, 40, 42, 46, 49, 66, 67, 69-71, 73, 75, 79, 80, 84, 90, 91, 94, 113, 114, 116, 127, 129-132, 139, 154, 159, 165, 169, 180, 197, 208, 220, 227, 229, 231, 240, 249, 259, 264, 269, 275, 283, 286, 292, 293, 295, 297, 299, 304, 305, 308, 315, 320, 322, 329, 333, 348-350, 353, 354, 361, 380, 385, 388-392, 394, 395, 397, 398, 401, 402, 404, 405, 407, 413, 435, 436, 441, 444, 445, 452-454, 456, 457, 459, 478, 499, 502, 511, 518, 529, 543-545, 548, 551, 553, 554, 560, 567, 570, 571, 590, 591, 595-597, 602, 607, 616, 617, 622, 655, 672, 676, 678, 679, 681, 683, 690, 691, 708-712, 714, 715, 717, 719, 720, 722, 740, 754, 755, 756, 758, 760, 761, 770, 788, 789, 797, 799, 802, 811, 821, 826, 829, 830, 834, 835, 844, 845, 848, 869, 872, 880	
Lactose	8, 23, 31, 42, 43, 98, 99, 104, 107, 110, 112, 125, 144, 220, 230, 239-241, 254, 282, 347, 354, 357, 365, 389, 391-393, 395, 400, 401, 424, 444, 450, 488, 519, 536, 537, 571, 577, 579, 667, 692, 693, 697, 809, 813, 828, 845, 855, 864	Micelles	11, 96
Lecithin	381, 861	Microwave	603, 636, 725, 805
Lectin	354	Milk	1, 5-14, 16, 17, 20-23, 26, 27, 30-32, 34, 35, 37-43, 46, 49, 66, 67, 69-71, 73, 74, 76-81, 83, 84, 85-88, 90, 94, 97-109, 111-116, 123, 125-127, 129-132, 136, 139, 144, 150, 151, 155, 157, 158, 159, 162, 164-167, 169, 173, 174, 181, 191, 193, 197, 208, 211, 213, 214, 218-222, 225, 227-229, 231, 237-242, 246-249, 251-256, 258, 260, 264, 265, 270-273, 275, 278, 282-287, 289-295, 297, 299, 301, 303-306, 308-310, 314-317, 319-324, 327, 328, 333, 334, 335, 336, 341, 342, 344, 346-350, 352, 354-356, 358, 360, 361, 364, 369-372, 375, 377, 379, 380, 385, 386, 388-395, 397, 398, 400-408, 411-413, 415, 421-429, 433-436, 441, 444, 445, 448, 454, 456-460, 468-472, 474, 477, 478, 482, 483, 485, 489, 494, 499, 507, 508, 510, 511, 512-514, 516, 518, 523, 526, 529, 531-535, 539, 541, 543-548, 551-553, 559-561, 563, 567, 570, 571, 573, 577, 578, 581, 588, 591, 592, 595-600, 606, 607, 609-611, 614, 616, 622, 626, 627-630, 634, 636-638, 646, 650, 658, 662, 664, 666-670, 672, 676, 678-681, 686, 689, 690, 691, 692, 695, 696, 705-708, 710-715, 718, 719, 722-724, 727, 730, 733, 740-742, 744, 748, 749, 751-756, 758, 760, 761, 763, 764, 766, 767, 770, 774, 776-778, 784, 787, 788, 790, 797, 798, 801-803, 805, 811, 814-817, 821, 823-826, 829, 835-842, 844-846, 848, 849, 851, 854, 856, 859, 861, 862, 864-866, 869, 873, 876-882
Light scattering	79, 95, 299, 348, 349, 518, 719, 834, 835	Milk chocolate	61, 328
Limburger cheese	575	Milk powder	7, 12, 43, 76, 83-85, 98-107, 109, 111, 112, 125, 219, 239-242, 284, 388, 395, 400, 402, 469, 532, 571, 598, 611, 668, 692, 823-825, 856, 859
Linoleic acid	14, 756	Milk protein	717, 805
Lipid	14, 17, 18, 82, 84, 253, 276, 343, 381, 424, 426-428, 477, 502, 507, 508, 541, 571, 689, 751, 756, 842, 845, 864, 866	Milled curd junctions	410
Lipolysis	38, 87, 448	Mish cheese	325
Lloyd testing machine	492	MIT denture tenderometer	651-653, 781
LM	6, 8, 23, 35, 36, 39, 40, 54, 69, 78, 92, 99, 101, 102, 124, 126, 141, 185, 188, 195, 204, 246, 256, 287, 290, 291, 331, 332, 339, 343, 344, 347, 372, 391, 392, 395, 412, 416, 436, 438, 450, 456, 477, 507, 508, 515, 528, 532, 534, 562, 570, 573, 590, 622, 635, 667, 684, 688, 703, 706, 723, 756, 766, 774, 803, 809, 821, 824, 853, 869, 872		
Lubricated squeezing flow	29, 118, 119, 121, 133, 134, 161, 280		
Maillard reaction	22, 697		
Margarine	33, 47, 53, 141, 171, 183-185, 187, 189, 215, 217, 233, 327, 330, 332, 383, 462, 463, 555, 638, 867		
Marshmallow	58		
Maturometer	53		
Mayonnaise	26, 47, 48, 117, 137, 215, 217, 332, 345, 462, 463, 822, 873		
Meat	344		
Meat binder	401		
Meltability	700, 701		
Melting	24, 35, 40, 41, 54, 121, 124, 207, 211, 234, 245, 313, 343, 365, 416, 439, 442, 443, 449, 450, 461, 500, 502, 503, 506, 519, 537, 572, 583, 593, 603, 604, 634, 638, 640, 661, 678, 685, 702, 718, 734, 743, 747, 757, 763, 766, 793, 794, 806, 809, 842, 857, 860		
Membrane	6, 8, 17, 18, 25, 38, 40, 41, 69, 82, 86, 88, 97, 100, 107, 126, 137, 151, 169, 225, 265, 279, 291, 308, 342, 389, 391, 392, 394, 395, 401, 403, 414, 424-428, 455, 458, 472, 515, 535, 541, 547, 570, 571, 583, 584, 602, 725, 751, 755, 756, 763, 765, 814, 826, 841, 865, 866		
Meshanger cheese	177, 178, 180, 587, 588, 647		
Mexican white cheese	558		

Structure and Rheology of Dairy Products: Bibliography

Modulus	26, 28, 33, 34, 47, 127, 136, 138, 146, 152, 162, 235, 379, 380, 420, 430, 432, 493, 501, 512, 513, 532, 550, 555, 582-584, 592, 615, 622, 647, 649, 658, 665, 736, 765, 807, 817, 829, 848, 860, 876-881	Penetrometer	163, 184, 198, 199, 209, 233, 235, 250, 255, 321, 323, 324, 327, 337, 404, 408, 415, 420, 467, 479, 480, 483-486, 521, 556, 564, 565, 611, 612, 631, 633, 646, 647, 649, 749, 775, 788, 791
Moisture content	1, 16, 34, 98, 102-105, 109-111, 123, 136, 144, 156, 160, 178, 179, 182, 209-211, 219, 236, 237, 240, 267, 268, 290, 307, 325, 334, 406, 418, 423, 430, 444, 479, 497, 499, 506, 512, 530, 531, 532, 571, 577, 587, 588, 591, 593, 596, 599, 609, 634, 647, 649, 658, 664, 685, 695, 702, 703, 750, 767, 775, 795, 810, 812, 813, 823, 848, 849, 852	Pepsin	115, 213, 214, 243, 283, 285, 474, 516, 573, 592, 773, 774
Mold	72	Peptide	341, 497
Monoglyceride	87, 145	Permeate	136, 308, 755
Montasio cheese	135	PH	1, 4, 5, 7, 9, 16, 21, 22, 40, 41, 49, 66, 71, 91, 113, 139, 147, 155, 156, 159, 160, 194, 202, 227, 230, 237, 239-241, 248, 255, 267, 272, 282, 286, 295, 307, 308, 316-318, 321, 323, 324, 337, 338, 350, 366-368, 374, 375, 392, 397, 406, 418, 435, 454, 457, 469, 470, 493, 497, 499, 502, 512, 513, 516, 523, 528, 530, 532, 533, 556, 573, 575, 587, 592, 599, 601, 607, 615, 624, 635, 654, 658, 682, 683, 690, 691, 695, 702, 719, 750, 751, 754, 758, 760, 798, 820, 829, 834, 848, 874, 881, 882
Mozzarella cheese	134, 142, 170, 362, 384, 392, 442, 443, 503, 586, 603, 647, 649, 757, 794, 795, 806, 858, 870, 871, 872	Phage	71
MTS Tensile Testing machine	160, 700	Phosphatase	69, 73, 78, 79, 92, 124, 126, 131, 139, 154, 185, 204, 207, 240, 241, 251, 322, 333, 334, 350, 385, 388, 391, 392, 395, 408, 416, 450, 452, 454, 458, 500, 502, 506, 515, 543, 545, 562, 581, 661, 702, 704, 709, 710, 713, 719, 720, 755, 770, 809, 829, 830, 844, 850, 851, 872, 880
Muenster cheese	503, 647, 649	Phosphorylation	720
Mustard	47, 190, 401, 463	Photography	409, 410
Nametre	607, 741, 742	Pickle	3
Nepalese cheese	589	Pig milk	372
NIRD extruder	485, 486	Pizza	603
NMR	81, 89, 234, 247, 351, 476, 488, 829, 830	Plant	344
Nonfat dry milk	147, 248, 319, 401, 413, 421, 422, 797	Plummet	791
Oestrus	30	Poisson's ratio	491
Oil	137	Polarimetry	99
Oleic acid	14	Polymorphism	141
Olomouc cheese	412	Polysaccharide	628, 762
Oriental cheese	589	Polysorbate	279
Osmium tetroxide	2, 6, 7, 12, 14, 18, 44, 49, 50, 67, 71, 78, 80, 132, 141, 169, 204, 219, 220, 274, 318, 361, 381, 385, 390, 394, 402, 405, 406, 412, 414, 416, 428, 436, 441, 457, 458, 515, 534, 557, 571, 575, 599, 600, 607, 608, 610, 678, 687, 689, 713, 754-756, 770, 793, 807, 822, 867	Porosity	105, 108, 109, 422, 423, 582, 584, 667, 765
Ostwald	110	Potato	146, 203, 657
Ottawa texture measuring system	282, 325, 414, 624, 625, 694-696, 805	Power law model	47, 48, 190, 308, 646, 768
Packaging	344	Process cheese	84, 120, 121, 124, 126, 134, 138, 184, 185, 207, 243, 257, 267, 268, 313, 325, 329, 337, 343, 362, 363, 392, 395, 397, 439, 445, 446, 449-451, 464, 471, 502, 511, 532, 549, 603, 622, 631, 633, 634, 654, 660, 661, 665, 678, 694, 695, 700-704, 749, 766, 769, 784, 790, 792, 793, 796, 809, 858, 868, 872
Paner	27, 406	Process cheese food	416
Parmesan cheese	142	Processed cream	490
Parmigiano-Reggiano cheese	574	Protease	72, 273, 433, 496, 664, 790
Pasta filata cheese	144, 540	Protein	1-5, 7, 12, 18, 19, 22, 24, 30-32, 37, 39-41, 43, 70, 73-76, 80-84, 86-88, 90, 92, 95,
Pasteurization	16, 80, 361, 423, 552, 811		
Peanut butter	48, 119, 184, 463		
Pear	203		
Pecorino cheese	135		
Pectin	385, 388, 764		
Penetration	191		

97, 107, 123, 124, 126, 130, 135, 136, 148, 151, 154, 155, 159, 162, 169, 177-181, 192-195, 201, 202, 205, 208, 210, 212, 213, 220, 222, 225, 227, 228, 231, 232, 236, 245, 248, 251, 252, 258, 270, 272, 273, 276, 278-280, 282, 286-288, 290, 294, 295, 297, 303, 307-309, 312, 318-320, 323-325, 328, 329, 331, 334, 336, 338, 339, 343, 353, 355, 356, 368, 374-377, 381, 388, 391, 392, 394, 395, 397, 402, 403, 406, 407, 411, 414, 416, 418, 419, 424, 426-428, 434, 435, 438, 439, 444, 445, 449, 452, 457, 465-467, 472, 476-478, 491-493, 499, 502, 504, 505, 506, 509, 511, 513, 528, 531, 532, 541, 551-553, 559-561, 567, 571, 573, 577, 589, 593, 595, 596-599, 601, 602, 609, 610, 612, 616, 626, 629, 634-636, 638, 647, 649, 650, 658, 664, 665, 672, 678, 686, 690, 701, 705, 706, 710, 716, 718, 719, 724, 736, 743, 750, 751, 754, 756, 758, 761, 762, 766, 776, 786, 793-795, 798-800, 802, 804, 805, 815, 816, 826, 829, 843, 844, 845, 856, 862, 864, 868, 871, 873, 874, 878	461, 462, 466-468, 470, 474, 475, 479-487, 489, 491-493, 495, 500, 501, 513, 514, 532, 538, 540, 546, 550, 556, 561, 565-569, 576, 580, 583-586, 591, 592, 605, 606, 612, 614, 615, 618, 620, 621-623, 631, 634, 645-649, 651-654, 656-658, 660, 661, 663, 665, 669, 670, 673, 677, 682, 685, 695, 700, 705, 726-731, 734-736, 738, 739, 743, 745-748, 757, 765, 768, 771, 774, 775, 777, 778, 780, 787, 789, 794, 795, 797, 807, 814, 815, 817, 818, 829, 845, 847, 848, 854, 855, 858, 860, 863, 869, 874, 876-882
Proteolysis	Rheometrics
1, 9, 16, 50, 51, 144, 153, 157, 158, 178, 181, 192, 210, 213, 230, 236, 243, 259, 271, 285, 290, 293, 295, 305, 395, 443, 457, 497, 517, 556, 573, 575, 587, 599, 687, 690, 696, 710, 740, 741, 775, 776, 820, 858, 878	47, 190, 586, 807
Provola cheese	Rheostat
Provolone cheese	Rheostest
Pseudoplasticity	Ricotta cheese
Psychotropic bacteria	Rigidity
Quarg	Rind
Queso Blanco cheese	Ripening
Rabbit milk	Romadur cheese
Raclette cheese	Roquefort cheese
Ras cheese	Rotary shadowing
Rat	Russian cheese
Rat milk	Safflower oil
Rennet	Saint Ceols cheese
12, 34, 46, 49, 67, 84, 115, 127, 136, 153, 157, 158, 162, 176, 178, 192, 208, 212-214, 227, 243, 249, 256, 271, 274, 283, 285, 286, 289-293, 297, 304, 352, 375, 379, 380, 388, 395, 432, 436, 446, 452, 456, 457, 469, 470, 474, 497, 499, 512, 516, 531, 533, 553, 573, 587, 588, 595, 616, 646, 664, 678, 690, 700, 701, 727, 729, 730, 733, 741, 742, 753, 764, 774, 817, 848, 861, 876-882	398, 413
Retentate	Saint Moret cheese
Reverse osmosis	Saint Paulin cheese
Rework	Salad dressing
Rheology	Salt
37, 39, 41, 47, 48, 52, 57, 59, 89, 115, 117, 119, 135, 136, 140, 143, 144-146, 153, 156, 158, 160, 162, 165, 167, 176, 186-190, 196, 197, 205, 209-211, 215, 216, 230, 233, 236, 237, 243, 250, 256, 270-272, 280, 282, 286, 300, 302, 306, 308-310, 327, 335, 340, 345, 346, 351, 359, 369-371, 373, 383, 392, 419, 420, 430-432, 434, 443, 445, 446,	Sandiness
	Sauce
	Sbrinz cheese
	Scamorza cheese
	Sectilometer
	SEM
	SFCC

Structure and Rheology of Dairy Products: Bibliography

- Sheep milk 32, 237, 238, 372, 513, 537
 Shortening 48, 189, 383
 Silhouette cheese 467
 Skim micelle 408
 Skim milk 3, 7, 12, 17, 20, 37, 39, 43, 66, 67, 69, 70, 83, 84, 94, 99, 108, 111-113, 130-132, 155, 159, 164, 165, 181, 208, 218, 225, 231, 239-242, 249, 286, 292, 299, 305, 306, 308, 309, 314, 316, 317, 321-324, 350, 354, 366, 375, 386-392, 395, 402, 405, 412, 415, 422, 423, 428, 435, 444, 468, 469, 472, 477, 494, 511, 512, 516, 518, 533, 544, 551, 559, 581, 590, 591, 611, 650, 667, 668, 672, 691, 692, 695, 705, 707, 708, 713, 715, 719, 722, 741, 742, 760, 761, 770, 774, 790, 805, 814, 815, 823, 824, 826, 829, 844, 849, 856, 876-881
 Smoothness 5, 23, 41, 461, 567
 Sodium caseinate 83
 Soft cheese 3, 5, 177, 178, 180, 598
 Solan cheese 599
 Solubility 68, 103, 124, 139, 193, 194, 365, 368, 561, 719, 750, 751, 755, 760, 799
 Sorbic acid 850
 Soy 84, 224, 312, 338, 407, 415, 477, 504, 506, 509-511, 553, 611, 612, 622, 628-630, 636, 706, 724, 772, 794, 804, 827, 861, 870, 871
 Specific gravity 422, 423
 Spreadability 53, 124, 171, 187, 198-200, 226, 233-235, 250, 263, 302, 327, 359, 360, 414, 417, 420, 460, 463, 479, 480, 484-486, 521, 565, 611, 612, 631, 633, 639-641, 644, 646, 694, 695, 808
 Springiness 160, 224, 236, 303, 313, 325, 506, 509, 511, 558, 632, 795, 827, 874
 Squeeze margarine 463
 Stability 4, 6, 8, 18, 19, 22, 24, 40-42, 66, 91, 128, 132, 137, 145, 167, 193, 197, 248, 251, 276-279, 308, 334, 345, 374, 375, 447, 495, 528, 545, 551, 572, 617, 650, 680, 709, 710, 719, 720, 723, 799, 800, 803, 840, 844, 873
 Stabilizer 4, 45, 165, 371, 473, 579
 Starch 8, 22, 29, 45, 191, 312, 345, 371, 391, 397, 404, 405, 415, 506, 622, 716, 758, 764, 772, 787, 812
 Stick margarine 463
 Stickiness 479, 480, 484, 485
 Stilton cheese 737
 Stretchability 438, 603, 794, 870, 871
 String cheese 432, 437, 438
 Succinylation 800
 Sugar 42, 43, 68, 74, 254, 328, 347, 628-630, 787, 813, 816
 Surfactant 82, 89, 476
 Surimi 148
 Swiss cheese 5, 142, 246, 499, 503, 662, 684, 688, 851
 Syneresis 3, 7, 67, 136, 165, 249, 283, 285, 317, 319, 387, 388, 392, 398, 421, 512, 553, 789, 848, 880
 TEM 1-3, 5-8, 11, 12, 17-19, 22, 36, 38-42, 46, 49, 63, 67-71, 73, 78-80, 82, 84, 85, 88, 92-97, 113, 124, 126, 129, 131, 132, 137, 154, 159, 169, 175, 180, 181, 185, 188, 195, 212, 220, 227, 229, 233, 248, 256, 257, 264, 273-276, 279, 283, 287, 290-293, 304, 307, 314-316, 318, 319, 328, 329, 334, 336, 339, 342-344, 348, 353, 354, 361, 381, 384, 385, 388-392, 394-398, 401-406, 408, 410-414, 416, 424, 427, 428, 436, 441, 449, 452, 454-459, 464, 476, 477, 478, 495, 502, 507, 508, 515, 529, 531, 532, 534, 535, 544, 554, 557, 566, 567, 570, 571, 573, 583, 595-597, 599, 600, 602, 607, 610, 616, 622, 635, 638, 640, 641, 644, 661, 672, 678, 679, 683, 691, 707-717, 719, 722, 754-756, 758, 762, 763, 770, 772, 774, 793, 811, 821, 822, 829, 835, 853, 861, 866, 867
 Texture 5, 8, 12, 16, 23, 39, 41, 57, 59-62, 64, 65, 120, 135, 142, 144, 146, 148, 156, 157, 160, 161, 164, 165, 170, 174, 182, 184, 186-189, 191, 193, 196, 201, 202, 209-211, 213, 222, 224, 234, 235, 243, 244, 260, 261, 266, 267, 276, 281, 282, 288, 290, 295-298, 303, 313, 325, 327, 351, 352, 382, 384, 414, 420, 432, 433, 437, 438, 460, 461, 467, 475, 497-501, 503, 506, 509, 511, 513, 514, 517, 520, 522, 523, 531, 532, 538, 553, 556, 558, 566-568, 583, 585, 594, 595-597, 605, 614, 624, 625, 632, 646, 651-653, 656, 663, 670, 671, 676, 677, 682, 685, 694, 695, 696, 737, 746, 747, 750, 764, 767, 772-774, 780-783, 785, 789, 792, 794, 796, 805, 807, 812, 818, 820, 831, 833, 858, 860, 870, 871, 874
 Thickening 392, 398, 404, 504, 668, 713, 760, 761, 777
 Thickness 460, 461
 Thixotropy 33, 140, 191, 346, 358, 364, 369, 373, 446, 514, 580, 614, 638, 735, 863
 Thrombelastograph 271, 592
 Tilsit cheese 210, 452, 458, 671, 689, 776
 Tofu 224, 339, 340, 407, 415
 TPA 59, 60, 62, 64, 65, 135, 142, 160, 224, 234-236, 266, 267, 303, 311, 313, 325, 363, 496, 506, 509, 511, 513, 522, 558, 568, 671, 764, 780-783, 794, 795, 827, 870, 871, 874
 Transportation 13
 Triglyceride 14, 35, 39, 41, 86, 88, 141, 151, 195, 262, 483, 535, 763, 842, 866
 Trypsin 9
 Tub margarine 47
 Turbidity 66, 79, 114, 338, 349, 435, 516, 617, 690, 691, 803, 836, 838
 Tween 45, 277, 532, 567, 602, 751
 Tyrosine 51, 246, 450, 678, 809, 850
 Ultra-viscoson 289, 531

Ultrafiltration	1, 25, 37, 87, 92, 94, 136, 157, 162, 169, 270, 273, 284, 287, 289-291, 297, 308, 309, 350, 375, 392, 400, 467, 472, 499, 543, 548, 595-597, 599, 662, 686, 706, 741, 755, 767, 770, 789, 826, 829, 848	215	278, 286, 289-291, 295, 297, 301, 320, 328, 338, 339, 366-368, 374-376, 381, 391, 392, 397, 407, 419, 423, 429, 430, 444, 445, 452, 471-473, 491- 493, 512, 528, 531, 551, 559-561, 567, 577, 595- 597, 599, 609, 635, 667, 669, 678, 686, 693, 697, 701, 740, 750, 761, 798, 800, 804, 805, 824, 829, 856, 861, 874
Uncutuousness	29	Whippable emulsion	40, 41, 476
Uniaxial compression	356	Whipped butter	463
Upersisation	356	Whipped cream	8, 75, 77, 80, 89, 90, 150, 166-168, 185, 195, 394, 399, 476, 477, 582- 584, 622, 638, 721, 765
Utter	480	Whipped Cream cheese	463
Vegetable oil	48	Whipped topping	89, 463
Vesicle	82	White cheese	392, 411
Viscoelasticity	26, 28, 29, 33, 39, 47, 117, 127, 136, 138, 143, 162, 174, 176, 215, 268, 272, 306, 337, 419, 430, 431, 434, 462, 467, 470, 501, 514, 539, 550, 555, 566, 586, 593, 615, 618, 646-649, 726, 729, 736, 743, 749, 764, 765, 787, 792, 815, 833, 877	X-ray crystallography	365, 450, 451, 459, 702-704, 763, 774, 809, 851
Viscometer	31, 33, 49, 110, 117, 140, 176, 181, 191, 250, 255, 272, 301, 304, 308, 334, 335, 358, 364, 369, 370, 373, 442, 444-446, 465, 466, 468- 470, 473, 479-481, 485, 486, 494, 510, 533, 537, 550, 580, 601, 606, 607, 609, 611, 612, 614, 635, 645, 646, 648, 654, 658, 663, 669, 682, 705, 723, 734, 735, 740-742, 761, 765, 777, 778, 791, 797, 807, 823, 829, 856, 860, 863, 869	X-ray diffraction	35, 141
Viscosity	4, 24, 26, 28, 30, 31, 33, 37, 39, 41, 47-49, 59, 89, 91, 95, 105, 110, 117, 119, 121, 128, 140, 145, 149, 166, 167, 172, 181, 191, 193, 233, 238, 250, 272, 278, 286, 289, 293, 299, 300, 301, 302, 304, 308, 309, 334, 335, 345, 364, 369, 370, 373, 375, 387, 430, 435, 442, 443, 445, 446, 459, 460, 465, 466, 468-470, 473, 479-486, 489, 490, 494, 501, 503, 510, 514, 537, 550, 565-567, 580-584, 586, 601, 606, 607, 609, 611, 612, 614, 627, 635, 645-648, 650, 654, 658, 663, 668, 669, 685, 705, 710, 719, 722, 723, 733, 734, 736, 740- 742, 749, 761, 764, 765, 777, 778, 780, 784, 791, 797, 798, 800, 807, 816, 817, 823, 835, 843, 856, 858, 860, 863, 869-871	X-ray microanalysis	25, 50, 55, 74, 76, 124, 126, 344, 464, 562, 608, 711
Volodkevich bite tenderometer	781	Xanthan	68, 473, 627
Voluminosity	309, 452, 465, 690, 760, 761, 834, 835, 844	Yoghurt	7, 14, 15, 26, 33, 37, 69, 73, 80, 83, 164, 165, 173, 281, 286, 295, 301, 319, 321, 335, 364, 369, 370, 371, 375, 385-388, 391, 392, 395, 397-399, 404, 405, 467, 487, 489, 510, 537, 551, 567, 580, 601, 606-610, 628, 629, 666, 669, 749, 788, 789, 791, 797, 802, 821
Warner-Bratzler apparatus	781, 812	Zabadi	218
Water	41, 81, 84, 221, 245, 343, 351, 376, 438, 638, 641, 683, 747	<hr/>	
Water activity	43, 50, 400, 487, 488, 530, 682, 683, 692, 693, 697, 845	Acknowledgements	
Water-holding	339, 376, 610		
Weissenberg Rheogoniometer	215-217, 735, 794, 829, 854		
Wheat	29, 397, 401, 636, 812		
Whey	1, 2, 6, 7, 12, 16, 18, 25, 32, 43, 44, 67, 70, 71, 82, 83, 92, 96, 110-112, 131, 136, 149, 156, 164, 165, 169, 193, 194, 205, 208, 213, 218, 221, 238-241, 248, 249, 251, 258, 272, 274, 276,		