Carl Holt

List of Publications by Year
in descending order

93 papers	6,139 citations	61984 43 h-index	69250 77 g-index
93 all docs	93 docs citations	93 times ranked	4042 citing authors

#	Article	IF	Citations
1	Are casein micelles extracellular condensates formed by liquidâ€liquid phase separation?. FEBS Letters, 2022, 596, 2072-2085.	2.8	5
2	Native disulphide-linked dimers facilitate amyloid fibril formation by bovine milk Î±S2-casein. Biophysical Chemistry, 2021, 270, 106530.	2.8	10
3	A quantitative calcium phosphate nanocluster model of the casein micelle: the average size, size distribution and surface properties. European Biophysics Journal, 2021, 50, 847-866.	2.2	21
4	Salt partition, ion equilibria, and the structure, composition, and solubility of micellar calcium phosphate in bovine milk with added calcium salts. Journal of Dairy Science, 2020, 103, 9893-9905.	3.4	9
5	Structural Biology of Calcium Phosphate Nanoclusters Sequestered by Phosphoproteins. Crystals, 2020, 10, 755.	2.2	27
6	A quantitative model of the bovine casein micelle: ion equilibria and calcium phosphate sequestration by individual caseins in bovine milk. European Biophysics Journal, 2019, 48, 45-59.	2.2	44
7	Sequence characteristics responsible for proteinâ€protein interactions in the intrinsically disordered regions of caseins, amelogenins, and small heatâ€shock proteins. Biopolymers, 2019, 110, e23319.	2.4	23
8	Functional and dysfunctional folding, association and aggregation of caseins. Advances in Protein Chemistry and Structural Biology, 2019, 118, 163-216.	2.3	22
9	Proteostasis and the Regulation of Intra- and Extracellular Protein Aggregation by ATP-Independent Molecular Chaperones: Lens Î±-Crystallins and Milk Caseins. Accounts of Chemical Research, 2018, 51, 745-752.	15.6	39
10	The effect of transglutaminase treatment on the physico-chemical properties of skim milk with added ethylenediaminetetraacetic acid. Food Hydrocolloids, 2017, 69, 329-340.	10.7	18
11	Effect of Phosphorylation on a Human-like Osteopontin Peptide. Biophysical Journal, 2017, 112, 1586-1596.	0.5	25
12	Letter to the Editor: A response to Horne and Lucey (2017). Journal of Dairy Science, 2017, 100, 5121-5124.	3.4	6
13	Structural studies of hydrated samples of amorphous calcium phosphate and phosphoprotein nanoclusters. European Biophysics Journal, 2016, 45, 405-412.	2.2	12
14	Casein and casein micelle structures, functions and diversity in 20Âspecies. International Dairy Journal, 2016, 60, 2-13.	3.0	68
15	A review of the biology of calcium phosphate sequestration with special reference to milk. Dairy Science and Technology, 2015, 95, 3-14.	2.2	52
16	Casein structures in the context of unfolded proteins. International Dairy Journal, 2015, 46, 2-11.	3.0	51
17	Multifunctional role of osteopontin in directing intrafibrillar mineralization of collagen and activation of osteoclasts. Acta Biomaterialia, 2014, 10, 494-507.	8.3	105
18	Mineralisation of soft and hard tissues and the stability of biofluids. Journal of Structural Biology, 2014, 185, 383-396.	2.8	60

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19	Invited review: Caseins and the casein micelle: Their biological functions, structures, and behavior in foods. Journal of Dairy Science, 2013, 96, 6127-6146.	3.4	338
20	Unfolded phosphopolypeptides enable soft and hard tissues to coexist in the same organism with relative ease. Current Opinion in Structural Biology, 2013, 23, 420-425.	5.7	39
21	Aggregation Behavior of Bovine Îº- and Î²-Casein Studied with Small Angle Neutron Scattering, Light Scattering, and Cryogenic Transmission Electron Microscopy. Langmuir, 2012, 28, 13577-13589.	3.5	31
22	Darwinian transformation of a â€˜scarcely nutritious fluidâ€™ into milk. Journal of Evolutionary Biology, 2012, 25, 1253-1263.	1.7	61
23	Co-adsorption of Î²-casein and calcium phosphate nanoclusters (CPN) at hydrophilic and hydrophobic solidâ€"solution interfaces studied by neutron reflectometry. Food Hydrocolloids, 2011, 25, 724-733.	10.7	9
24	Role of calcium phosphate nanoclusters in the control of calcification. FEBS Journal, 2009, 276, 2308-2323.	4.7	76
25	An E. coli over-expression system for multiply-phosphorylated proteins and its use in a study of calcium phosphate sequestration by novel recombinant phosphopeptides. Protein Expression and Purification, 2009, 67, 23-34.	1.3	19
26	Effect of sampling procedure and strain variation in Listeria monocytogenes on the discrimination of species in the genus Listeria by Fourier transform infrared spectroscopy and canonical variates analysis. FEMS Microbiology Letters, 2006, 147, 45-50.	1.8	57
27	A biological perspective on the structure and function of caseins and casein micelles. International Journal of Dairy Technology, 2004, 57, 121-126.	2.8	40
28	An equilibrium thermodynamic model of the sequestration of calcium phosphate by casein phosphopeptides. European Biophysics Journal, 2004, 33, 435-47.	2.2	73
29	An equilibrium thermodynamic model of the sequestration of calcium phosphate by casein micelles and its application to the calculation of the partition of salts in milk. European Biophysics Journal, 2004, 33, 421-34.	2.2	148
30	A Recombinant C121S Mutant of Bovine Î²-Lactoglobulin Is More Susceptible to Peptic Digestion and to Denaturation by Reducing Agents and Heatingâ€. Biochemistry, 2004, 43, 6312-6321.	2.5	53
31	Î²-Casein Adsorption at the Silicon Oxide-Aqueous Solution Interface:Â Calcium Ion Effects. Biomacromolecules, 2004, 5, 319-325.	5.4	11
32	Invited Review: Î²-Lactoglobulin: Binding Properties, Structure, and Function. Journal of Dairy Science, 2004, 87, 785-796.	3.4	589
33	Effect of the free energies of formation of the core and shell and of the density of the casein phosphate centres on the thermodynamic stability of calcium phosphate nanoclusters. Materials Research Society Symposia Proceedings, 2004, 823, W7.1.1.	0.1	0
34	Physicochemical Study of Îº- and Î²-Casein Dispersions and the Effect of Cross-Linking by Transglutaminase. Langmuir, 2002, 18, 4885-4891.	3.5	65
35	The Ligand-binding Site of Bovine Î²-Lactoglobulin: Evidence for a Function?. Journal of Molecular Biology, 2002, 318, 1043-1055.	4.2	236
36	Milk protein structureâ€"what can it tell the dairy industry?. International Dairy Journal, 2002, 12, 299-310.	3.0	33

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37	A Raman optical activity study of rheomorphism in caseins, synucleins and tau. FEBS Journal, 2002, 269, 148-156.	0.2	214
38	Depletion interaction of casein micelles and an exocellular polysaccharide. Physical Review E, 1999, 60, 848-856.	2.1	74
39	Adsorption of beta-Lactoglobulin variants A and B to the air-water interface. International Journal of Food Science and Technology, 1999, 34, 509-516.	2.7	26
40	Effect of anions on the denaturation and aggregation of beta-Lactoglobulin as measured by differential scanning microcalorimetry. International Journal of Food Science and Technology, 1999, 34, 477-481.	2.7	19
41	Expression of recombinant wild-type and mutant beta-Lactoglobulins in the yeast Pichia pastoris. International Journal of Food Science and Technology, 1999, 34, 445-450.	2.7	5
42	Apparent chemical composition of nine commercial or semi-commercial whey protein concentrates, isolates and fractions. International Journal of Food Science and Technology, 1999, 34, 543-556.	2.7	45
43	Some physico-chemical properties of nine commercial or semi-commercial whey protein concentrates, isolates and fractions. International Journal of Food Science and Technology, 1999, 34, 587-601.	2.7	35
44	Discrimination amongBacillus cereus,B. mycoidesandB. thuringiensisand some other species of the genusBacillusby Fourier transform infrared spectroscopy. FEMS Microbiology Letters, 1998, 164, 201-206.	1.8	71
45	A core-shell model of calcium phosphate nanoclusters stabilized by beta-casein phosphopeptides, derived from sedimentation equilibrium and small-angle X-ray and neutron-scattering measurements. FEBS Journal, 1998, 252, 73-78.	0.2	154
46	Comparison of the Effect of Heating on the Thermal Denaturation of Nine Different Î²-Lactoglobulin Preparations of Genetic Variants A, B or A/B, as Measured by Microcalorimetry. International Dairy Journal, 1998, 8, 99-104.	3.0	29
47	Casein Micelle Substructure and Calcium Phosphate Interactions Studied by Sephacryl Column Chromatography. Journal of Dairy Science, 1998, 81, 2994-3003.	3.4	87
48	Effect of temperature on the secondary structure of <i>Î²</i>-lactoglobulin at pHÂ6.7, as determined by CD and IR spectroscopy: a test of the molten globule hypothesis. Biochemical Journal, 1997, 324, 341-346.	3.7	301
49	Cortisol, parathyroid hormone-related protein and the onset of calcium secretion by the mammary gland of the goat. Journal of Dairy Research, 1997, 64, 633-636.	1.4	0
50	Effect of sampling procedure and strain variation in Listeria monocytogenes on the discrimination of species in the genus Listeria by Fourier transform infrared spectroscopy and canonical variates analysis. FEMS Microbiology Letters, 1997, 147, 45-50.	1.8	2
51	Ability of a <i>Î²</i>-casein phosphopeptide to modulate the precipitation of calcium phosphate by forming amorphous dicalcium phosphate nanoclusters. Biochemical Journal, 1996, 314, 1035-1039.	3.7	170
52	Multi-state thermal unfolding and aggregation of Î²-lactoglobulin A. Biochemical Society Transactions, 1995, 23, 74S-74S.	3.4	5
53	Limited interpretation of changes in the FTIR spectrum of Î²-lactoglobulin with temperature. Biochemical Society Transactions, 1995, 23, 612S-612S.	3.4	4
54	Thermal denaturation of Î²-lactoglobulin: effect of protein concentration at pH 6.75 and 8.05. BBA - Proteins and Proteomics, 1995, 1248, 43-49.	2.1	131

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55	Inorganic constituents of milk. V. Ion activity product for calcium phosphate in diffusates prepared from goats' milk. Journal of Dairy Research, 1994, 61, 423-426.	1.4	3
56	A comparison of silver ion HPLC plus GC with Fourier-transform IR spectroscopy for the determination of trans double bonds in unsaturated fatty acids. Journal of the Science of Food and Agriculture, 1993, 61, 261-266.	3.5	53
57	Caseins as rheomorphic proteins: interpretation of primary and secondary structures of the Î±S1-, Î²- and Îº-caseins. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 2683-2692.	1.7	225
58	The Secondary Structure of Milk Proteins and their Biological Function. Journal of Dairy Science, 1993, 76, 3062-3078.	3.4	48
59	Structure and Stability of Bovine Casein Micelles. Advances in Protein Chemistry, 1992, 43, 63-151.	4.4	352
60	Structural analysis of the environment of calcium ions in crystalline and amorphous calcium phosphates by X-ray absorption spectroscopy and a hypothesis concerning the biological function of the casein micelle. International Dairy Journal, 1991, 1, 151-165.	3.0	33
61	Composition and structure of micellar calcium phosphate. Journal of Dairy Research, 1989, 56, 411-416.	1.4	54
62	Amorphous calcium phosphates prepared at pH 6.5 and 6.0. Materials Research Bulletin, 1989, 24, 55-62.	5.2	60
63	Calcium environment in encrusting deposits from urinary catheters investigated by interpretation of EXAFS spectra. Journal of Inorganic Biochemistry, 1989, 36, 141-148.	3.5	8
64	Phosphopeptide dissociation from micellar calcium phosphate preparations does not induce crystallinity. Journal of Dairy Research, 1989, 56, 669-673.	1.4	3
65	Preparation of amorphous calcium-magnesium phosphates at pH 7 and characterization by x-ray absorption and fourier transform infrared spectroscopy. Journal of Crystal Growth, 1988, 92, 239-252.	1.5	59
66	A geometrical model to describe the initial aggregation of partly renneted casein micelles. Journal of Colloid and Interface Science, 1988, 123, 80-84.	9.4	32
67	Primary and predicted secondary structures of the caseins in relation to their biological functions. Protein Engineering, Design and Selection, 1988, 2, 251-259.	2.1	139
68	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. Journal of Dairy Research, 1988, 55, 255-268.	1.4	68
69	Casein and lactose concentrations in milk of 31 species are negatively correlated. Experientia, 1987, 43, 1015-1018.	1.2	44
70	Conversion of amorphous calcium phosphate into hydroxyapatite investigated by EXAFS spectroscopy. Journal of Crystal Growth, 1987, 84, 563-570.	1.5	101
71	Analysis of EXAFS spectra from the brushite and monetite forms of calcium phosphate. Materials Research Bulletin, 1987, 22, 1151-1157.	5.2	10
72	Electrophoretic and hydrodynamic properties of bovine casein micelles interpreted in terms of particles with an outer hairy layer. Journal of Colloid and Interface Science, 1986, 114, 513-524.	9.4	76

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73	Effects of colloidal calcium phosphate content and free calcium ion concentration in the milk serum on the dissociation of bovine casein micelles. Journal of Dairy Research, 1986, 53, 557-572.	1.4	144
74	Comparison of the structure of micellar calcium phosphate in milk from six species by extended X-ray absorption fine structure spectroscopy. Journal of Dairy Research, 1985, 52, 267-273.	1.4	12
75	Swelling of golgi vesicles in mammary secretory cells and its relation to the yield and quantitative composition of milk. Journal of Theoretical Biology, 1983, 101, 247-261.	1.7	53
76	Inorganic constituents of milk III. The colloidal calcium phosphate of cow's milk. Journal of Dairy Research, 1982, 49, 29-38.	1.4	100
77	The inorganic constituents of milk IV. Diffusible calcium and magnesium concentrations in goat's milk and the effect of starvation. Journal of Dairy Research, 1982, 49, 179-186.	1.4	9
78	Some Principles Determining Salt Composition and Partitioning of Ions in Milk. Journal of Dairy Science, 1981, 64, 1958-1964.	3.4	18
79	Calculation of the ion equilibria in milk diffusate and comparison with experiment. Analytical Biochemistry, 1981, 113, 154-163.	2.4	160
80	Inorganic constituents of milk: I. Correlation of soluble calcium with citrate in bovine milk. Journal of Dairy Research, 1979, 46, 433-439.	1.4	63
81	Post-secretory aggregation of caseins. Journal of Dairy Research, 1979, 46, 193-195.	1.4	7
82	The synergic effect of urea and aldehydes on the heat stability of concentrated skim-milk. Journal of Dairy Research, 1979, 46, 381-384.	1.4	14
83	Gel permeation chromatography of high molecular weight cellulose trinitrate. Polymer, 1978, 19, 1421-1426.	3.8	12
84	Measurements of the size of bovine casein micelles by means of electron microscopy and light scattering. Journal of Colloid and Interface Science, 1978, 65, 555-565.	9.4	49
85	Seasonal changes in the heat stability of milk from creamery silos in south-west Scotland. Journal of Dairy Research, 1978, 45, 183-190.	1.4	49
86	The heat stability of milk and concentrated milk containing added aldehydes and sugars. Journal of Dairy Research, 1978, 45, 47-52.	1.4	50
87	Natural variations in the average size of bovine casein micelles: I. Milks from individual Ayrshire cows. Journal of Dairy Research, 1978, 45, 339-345.	1.4	18
88	Natural variations in the average size of bovine casein micelles: II. Milk samples from creamery bulk silos in south west Scotland. Journal of Dairy Research, 1978, 45, 347-353.	1.4	34
89	Natural variations in the average size of bovine casein micelles: III. Studies on colostrum by electron by microscopy and light scattering. Journal of Dairy Research, 1978, 45, 355-362.	1.4	15
90	Configuration of cellulose trinitrate in solution. Polymer, 1976, 17, 1027-1034.	3.8	18

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91	The thermochemistry of reactions between Î±s1-casein and calcium chloride. Biochimica Et Biophysica Acta (BBA) - Protein Structure, 1975, 379, 638-644.	1.7	14
92	Measurement of particle sizes by elastic and quasi-elastic light scattering. Biochimica Et Biophysica Acta (BBA) - Protein Structure, 1975, 400, 283-292.	1.7	42
93	Casein micelle size from elastic and quasi-elastic light scattering measurements. Biochimica Et Biophysica Acta (BBA) - Protein Structure, 1975, 400, 293-301.	1.7	43