Roman Buckow

List of Publications by Year
in descending order

78 papers	4,105 citations	101496 36 h-index	114418 63 g-index
80 all docs	80 docs citations	80 times ranked	3536 citing authors

#	Article	IF	Citations
1	High pressure application for food biopolymers. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 619-631.	1.1	277
2	New opportunities and perspectives of high pressure treatment to improve health and safety attributes of foods. A review. Food Research International, 2015, 77, 725-742.	2.9	252
3	High pressure and thermal inactivation kinetics of polyphenol oxidase and peroxidase in strawberry puree. Innovative Food Science and Emerging Technologies, 2010, 11, 52-60.	2.7	221
4	Quality-Related Enzymes in Fruit and Vegetable Products: Effects of Novel Food Processing Technologies, Part 1: High-Pressure Processing. Critical Reviews in Food Science and Nutrition, 2014, 54, 24-63.	5.4	219
5	High-Pressure-Mediated Survival of Clostridium botulinum and Bacillus amyloliquefaciens Endospores at High Temperature. Applied and Environmental Microbiology, 2006, 72, 3476-3481.	1.4	198
6	Pulsed Electric Field Processing of Orange Juice: A Review on Microbial, Enzymatic, Nutritional, and Sensory Quality and Stability. Comprehensive Reviews in Food Science and Food Safety, 2013, 12, 455-467.	5.9	163
7	Inactivation kinetics of apple polyphenol oxidase in different pressureâ€“temperature domains. Innovative Food Science and Emerging Technologies, 2009, 10, 441-448.	2.7	134
8	Pressure and Temperature Effects on Degradation Kinetics and Storage Stability of Total Anthocyanins in Blueberry Juice. Journal of Agricultural and Food Chemistry, 2010, 58, 10076-10084.	2.4	131
9	High pressure phase transition kinetics of maize starch. Journal of Food Engineering, 2007, 81, 469-475.	2.7	91
10	Energy Requirements for Alternative Food Processing Technologiesâ€"Principles, Assumptions, and Evaluation of Efficiency. Comprehensive Reviews in Food Science and Food Safety, 2015, 14, 536-554.	5.9	88
11	Effect of High Pressure on Physicochemical Properties of Meat. Critical Reviews in Food Science and Nutrition, 2013, 53, 770-786.	5.4	87
12	Predictive Model for Inactivation of Feline Calicivirus, a Norovirus Surrogate, by Heat and High Hydrostatic Pressure. Applied and Environmental Microbiology, 2008, 74, 1030-1038.	1.4	81
13	Nanostructure, morphology and functionality of cassava starch after pulsed electric fields assisted acetylation. Food Hydrocolloids, 2016, 54, 139-150.	5.6	81
14	Blueberry polyphenol oxidase: Characterization and the kinetics of thermal and high pressure activation and inactivation. Food Chemistry, 2015, 188, 193-200.	4.2	79
15	Advances in High-Pressure Processing of Fish Muscles. Food Engineering Reviews, 2015, 7, 109-129.	3.1	77
16	Comparison between thermal pasteurization and high pressure processing of bovine skim milk in relation to denaturation and immunogenicity of native milk proteins. Innovative Food Science and Emerging Technologies, 2018, 47, 301-308.	2.7	74
17	Simulation and evaluation of pilot-scale pulsed electric field (PEF) processing. Journal of Food Engineering, 2010, 101, 67-77.	2.7	73
18	Opportunities and challenges in pulsed electric field processing of dairy products. International Dairy Journal, 2014, 34, 199-212.	1.5	68

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19	Microbiological and physicochemical stability of raw, pasteurised or pulsed electric field-treated milk. Innovative Food Science and Emerging Technologies, 2016, 38, 365-373.	2.7	68
20	Structuring dairy systems through high pressure processing. Journal of Food Engineering, 2013, 114, 106-122.	2.7	64
21	Impact of protein content on physical and microstructural properties of extruded rice starch-pea protein snacks. Journal of Food Engineering, 2017, 212, 165-173.	2.7	63
22	Adiabatic compression heating coefficients for high-pressure processing â€“ A study of some insulating polymer materials. Journal of Food Engineering, 2010, 98, 110-119.	2.7	60
23	Adiabatic compression heating coefficients for high-pressure processing of water, propylene-glycol and mixtures â€“ A combined experimental and numerical approach. Journal of Food Engineering, 2010, 96, 229-238.	2.7	60
24	High Pressure Processing â€“ aÂDatabase of Kinetic Information. Chemie-Ingenieur-Technik, 2008, 80, 1081-1095.	0.4	58
25	Effect of dimensions and geometry of co-field and co-linear pulsed electric field treatment chambers on electric field strength and energy utilisation. Journal of Food Engineering, 2011, 105, 545-556.	2.7	55
26	Quality-Related Enzymes in Plant-Based Products: Effects of Novel Food Processing Technologies Part 2: Pulsed Electric Field Processing. Critical Reviews in Food Science and Nutrition, 2015, 55, 1-15.	5.4	54
27	High pressure processing of barramundi (Lates calcarifer) muscle before freezing: The effects on selected physicochemical properties during frozen storage. Journal of Food Engineering, 2016, 169, 72-78.	2.7	54
28	Stability and catalytic activity of Î±-amylase from barley malt at different pressureâ€“temperature conditions. Biotechnology and Bioengineering, 2007, 97, 1-11.	1.7	46
29	Quality-Related Enzymes in Plant-Based Products: Effects of Novel Food-Processing Technologies Part 3: Ultrasonic Processing. Critical Reviews in Food Science and Nutrition, 2015, 55, 147-158.	5.4	46
30	Effects of high pressure CO2 treatments on microflora, enzymes and some quality attributes of apple juice. Journal of Food Engineering, 2011, 104, 577-584.	2.7	45
31	Pea protein-fortified extruded snacks: Linking melt viscosity and glass transition temperature with expansion behaviour. Journal of Food Engineering, 2018, 217, 93-100.	2.7	44
32	Instrumental and sensory properties of pea protein-fortified extruded rice snacks. Food Research International, 2017, 102, 658-665.	2.9	43
33	Colour change and proteolysis of skim milk during high pressure thermalâ€“processing. Journal of Food Engineering, 2015, 147, 102-110.	2.7	42
34	Structural, thermodynamic and digestible properties of maize starches esterified by conventional and dual methods: Differentiation of amylose contents. Food Hydrocolloids, 2018, 83, 419-429.	5.6	42
35	An Emerging Segment of Functional Legume-Based Beverages: A Review. Food Reviews International, 2022, 38, 1064-1102.	4.3	42
36	Inactivation of Avian Influenza Virus by Heat and High Hydrostatic Pressure. Journal of Food Protection, 2007, 70, 667-673.	0.8	38

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37	An iterative modelling approach for improving the performance of a pulsed electric field (PEF) treatment chamber. Computers and Chemical Engineering, 2012, 37, 48-63.	2.0	34
38	Functional and food application of plant proteins â€“ a review. Food Reviews International, 2023, 39, 2428-2456.	4.3	33
39	Conjugation of Bovine Serum Albumin and Glucose under Combined High Pressure and Heat. Journal of Agricultural and Food Chemistry, 2011, 59, 3915-3923.	2.4	31
40	Multiphysics Simulation of Innovative Food Processing Technologies. Food Engineering Reviews, 2015, 7, 64-81.	3.1	30
41	Pressureâˆ'Temperature Phase Diagrams of Maize Starches with Different Amylose Contents. Journal of Agricultural and Food Chemistry, 2009, 57, 11510-11516.	2.4	29
42	Modification of structure and mixing properties of wheat flour through high-pressure processing. Food Research International, 2013, 53, 352-361.	2.9	29
43	Kinetic models for pulsed electric field and thermal inactivation of Escherichia coli and Pseudomonas fluorescens in whole milk. International Dairy Journal, 2016, 57, 7-14.	1.5	29
44	Catalytic Activity of Î²-Amylase from Barley in Different Pressure/Temperature Domains. Biotechnology Progress, 2005, 21, 1632-1638.	1.3	28
45	Carrier optimisation in a pilot-scale high pressure sterilisation plant â€“ An iterative CFD approach employing an integrated temperature distributor (ITD). Journal of Food Engineering, 2010, 97, 199-207.	2.7	27
46	Predictive Model for Inactivation of Campylobacter spp. by Heat and High Hydrostatic Pressure. Journal of Food Protection, 2007, 70, 2023-2029.	0.8	26
47	Bovine cathepsin D activity under high pressure. Food Chemistry, 2010, 120, 474-481.	4.2	25
48	Numerical evaluation of lactoperoxidase inactivation during continuous pulsed electric field processing. Biotechnology Progress, 2012, 28, 1363-1375.	1.3	23
49	In situ quantification of Î²-carotene partitioning in oil-in-water emulsions by confocal Raman microscopy. Food Chemistry, 2017, 233, 197-203.	4.2	23
50	Modification of the structural and rheological properties of whey protein/gelatin mixtures through high pressure processing. Food Chemistry, 2014, 156, 243-249.	4.2	22
51	Effects of pulsed electric field treatment on the preparation and physicochemical properties of porous corn starch derived from enzymolysis. Journal of Food Processing and Preservation, 2020, 44, e14353.	0.9	20
52	Effect of high pressure processing on rheological and structural properties of milkâ€“gelatin mixtures. Food Chemistry, 2013, 141, 1328-1334.	4.2	19
53	Structural, rheological and gelatinization properties of wheat starch granules separated from different noodle-making process. Journal of Cereal Science, 2020, 91, 102897.	1.8	17
54	Characterisation of Î²-carotene partitioning in protein emulsions: Effects of pre-treatments, solid fat content and emulsifier type. Food Chemistry, 2018, 257, 361-367.	4.2	16

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55	The effect of extrusion on the functional properties of oat fibre. LWT - Food Science and Technology, 2017, 84, 106-113.	2.5	15
56	Modeling water partition in composite gels of BSA with gelatin following thermal treatment. Food Hydrocolloids, 2018, 76, 141-149.	5.6	14
57	High pressure processing improves the sensory quality of sodium-reduced chicken sausage formulated with three anion types of potassium salt. Food Control, 2021, 126, 108008.	2.8	14
58	Wheat noodles enriched with Aâ€type and/or Bâ€type wheat starch: physical, thermal and textural properties of dough sheet and noodle samples from different noodleâ€making process. International Journal of Food Science and Technology, 2021, 56, 3111-3122.	1.3	13
59	Quality Attributes of Ultra-High Temperature-Treated Model Beverages Prepared with Faba Bean Protein Concentrates. Foods, 2021, 10, 1244.	1.9	13
60	High Pressure Processing Applications in Plant Foods. Foods, 2022, 11, 223.	1.9	12
61	Enzymatic hydrolysis improves the stability of UHT treated faba bean protein emulsions. Food and Bioproducts Processing, 2022, 132, 200-210.	1.8	11
62	Extrusion of a Curcuminoidâ€Enriched Oat Fiberâ€Cornâ€Based Snack Product. Journal of Food Science, 2019, 84, 284-291.	1.5	10
63	High-Pressure-Induced Effects on Bacterial Spores, Vegetative Microorganisms, and Enzymes. Food Engineering Series, 2010, , 325-340.	0.3	10
64	Pressure Gelatinization of Starch. Food Engineering Series, 2016, , 433-459.	0.3	8
65	Gelation of barramundi (<i>Lates calcarifer</i>) minced muscle as affected by pressure and thermal treatments at low salt concentration. Journal of the Science of Food and Agriculture, 2017, 97, 3781-3789.	1.7	8
66	Effect of highâ€pressure treatments prior to cooking on gelling properties of unwashed protein from barramundi (<i>Lates calcarifer</i>) minced muscle. International Journal of Food Science and Technology, 2017, 52, 1383-1391.	1.3	7
67	Advanced food preservation technologies. Microbiology Australia, 2013, 34, 108.	0.1	5
68	Oat Fiber As a Carrier for Curcuminoids. Journal of Agricultural and Food Chemistry, 2014, 62, 12172-12177.	2.4	5
69	High pressure inactivation of selected avian viral pathogens in chicken meat homogenate. Food Control, 2017, 73, 215-222.	2.8	5
70	Modeling water partition in composite gels of BSA with gelatin following high pressure treatment. Food Chemistry, 2018, 265, 32-38.	4.2	5
71	Modeling counterion partition in composite gels of BSA with gelatin following thermal treatment. Food Hydrocolloids, 2018, 74, 97-103.	5.6	4
72	Pressure and Heat Resistance ofClostridium Botulinum and Other Endospores. , 0, , 95-114.		3

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73	High pressure thermal sterilization of barramundi (<i>Lates</i> <i>calcarifer</i>) muscles in brine: Effects on selected physicochemical properties. Journal of Food Processing and Preservation, 2021, 45, e15523.	0.9	3
74	Modeling counterion partition in composite gels of BSA with gelatin following high pressure treatment. Food Chemistry, 2019, 285, 104-110.	4.2	2
75	Mechanical and Functional Properties of Unwashed Barramundi (<i>Lates calcarifer</i>) Gels as Affected by High-Pressure Processing at three Different Temperatures and Salt Concentrations. Journal of Aquatic Food Product Technology, 2020, 29, 373-382.	0.6	2
76	UHT Treatment on the Stability of Faba Bean Protein Emulsion. Proceedings (mdpi), 2020, 70, .	0.2	2
77	Models with Insignificant Parameters. Applied and Environmental Microbiology, 2008, 74, 6481-6482.	1.4	1
78	Special Issue on International Nonthermal Food Processing Workshop: FIESTA 2012. Food Engineering Reviews, 2015, 7, 63-63.	3.1	0