Kai Knoerzer

List of Publications by Year in Descending Order

64 papers	2,068 citations	26 h-index	45 g-index
71 ext. papers	2,355 ext. citations	6 avg, IF	4.93 L-index

#	Paper	IF	Citations
64	Long term food stability for extended space missions: a review.. *Life Sciences in Space Research*, **2022**, 32, 79-95	2.4	1
63	Perspectives from CO+RE: How COVID-19 changed our food systems and food security paradigms. *Current Research in Food Science*, **2020**, 3, 166-172	5.6	72
62	Improved canola oil expeller extraction using a pilot-scale continuous flow microwave system for pre-treatment of seeds and flaked seeds. *Journal of Food Engineering*, **2020**, 284, 110053	6	10
61	Adiabatic Compression Heating Properties of Solids **2019**,		
60	Multiphysics Modelling of High-Pressure Processing **2019**,		
59	Adiabatic Compression Heating Properties of Liquids **2019**,		
58	Designing, Modeling, and Optimizing Processes to Ensure Microbial Safety and Stability Through Emerging Technologies **2018**, 187-229		2
57	Low moisture extrusion of pea protein and pea fibre fortified rice starch blends. *Journal of Food Engineering*, **2018**, 231, 61-71	6	30
56	Advances in high frequency ultrasound separation of particulates from biomass. *Ultrasonics Sonochemistry*, **2017**, 35, 577-590	8.9	33
55	Multiphysics Modelling of Innovative Food Processing Technologies **2017**, 435-455		
54	Effect of different heat-treatment times and applied shear on secondary structure, molecular weight distribution, solubility and rheological properties of pea protein isolate as investigated by capillary rheometry. *Journal of Food Engineering*, **2017**, 208, 66-76	6	42
53	Impact of Insoluble Fibre Addition in Low Moisture Extrusion Processes **2017**,		
52	Advances in Ultrasonic and Megasonic Processing of Foods. *Food Engineering Reviews*, **2017**, 9, 237-256	6.5	25
51	Effect of low moisture extrusion on a pea protein isolate expansion, solubility, molecular weight distribution and secondary structure as determined by Fourier Transform Infrared Spectroscopy (FTIR). *Journal of Food Engineering*, **2017**, 214, 166-174	6	61
50	A Review: Protein-Fortified Low Moisture Extrusion **2017**,		1
49	Nonthermal and Innovative Food Processing Technologies **2016**,		5
48	High pressure thermal processing of pears: Effect on endogenous enzyme activity and related quality attributes. *Innovative Food Science and Emerging Technologies*, **2016**, 33, 56-66	6.8	26

47	Modeling High-Pressure Processes: Equipment Design, Process Performance Evaluation, and Validation. *Food Engineering Series*, **2016**, 217-252	0.5	0
46	High Pressure Processing **2016**,		2
45	Measuring Temperatures in Microwave Applications **2016**,		
44	Megasonic Separation of Food Droplets and Particles: Design Considerations. *Food Engineering Reviews*, **2015**, 7, 298-320	6.5	29
43	Design parameters of stainless steel plates for maximizing high frequency ultrasound wave transmission. *Ultrasonics Sonochemistry*, **2015**, 26, 56-63	8.9	21
42	Multiphysics Simulation of Innovative Food Processing Technologies. *Food Engineering Reviews*, **2015**, 7, 64-81	6.5	22
41	Ultrasound pressure distributions generated by high frequency transducers in large reactors. *Ultrasonics Sonochemistry*, **2015**, 27, 22-29	8.9	18
40	Continuous combined microwave and hot air treatment of apples for fruit fly (Bactrocera tryoni and B. jarvisi) disinfestation. *Innovative Food Science and Emerging Technologies*, **2015**, 29, 261-270	6.8	6
39	Apparatus for the simultaneous processing of mesophilic spores by heat-only and by high pressure and heat in a high pressure vessel to investigate synergistic spore inactivation. *Innovative Food Science and Emerging Technologies*, **2015**, 27, 35-40	6.8	10
38	Clean recovery of antioxidant compounds from plant foods, by-products and algae assisted by ultrasounds processing. Modeling approaches to optimize processing conditions. *Trends in Food Science and Technology*, **2015**, 42, 134-149	15.3	251
37	Separation of suspensions and emulsions via ultrasonic standing waves - a review. *Ultrasonics Sonochemistry*, **2014**, 21, 2151-64	8.9	67
36	Effect of acoustic frequency and power density on the aqueous ultrasonic-assisted extraction of grape pomace (Vitis vinifera L.) - a response surface approach. *Ultrasonics Sonochemistry*, **2014**, 21, 2176-84	8.9	142
35	Evaluation of the differences of process variables in vertical and horizontal configurations of High Pressure Thermal (HPT) processing systems through numerical modelling. *Innovative Food Science and Emerging Technologies*, **2014**, 22, 51-62	6.8	12
34	Production of particulates from transducer erosion: implications on food safety. *Ultrasonics Sonochemistry*, **2014**, 21, 2122-30	8.9	32
33	Enhancement of convective drying by application of airborne ultrasound - a response surface approach. *Ultrasonics Sonochemistry*, **2014**, 21, 2144-50	8.9	54
32	Application of Ultrasound for Oil Separation and Recovery of Palm Oil. *JAOCS, Journal of the American Oil Chemists' Society*, **2013**, 90, 579-588	1.8	45
31	Creaming enhancement in a liter scale ultrasonic reactor at selected transducer configurations and frequencies. *Ultrasonics Sonochemistry*, **2013**, 20, 52-62	8.9	56
30	Multiphysics modelling of the separation of suspended particles via frequency ramping of ultrasonic standing waves. *Ultrasonics Sonochemistry*, **2013**, 20, 655-66	8.9	23

29	Food Process Engineering Research and Innovation in a Fast-Changing World. *Food Engineering Series*, **2013**, 1-40	0.5	
28	Numerical evaluation of lactoperoxidase inactivation during continuous pulsed electric field processing. *Biotechnology Progress*, **2012**, 28, 1363-75	2.8	19
27	Evaluation of methods for determining food surface temperature in the presence of low-pressure cool plasma. *Innovative Food Science and Emerging Technologies*, **2012**, 15, 23-30	6.8	9
26	An iterative modelling approach for improving the performance of a pulsed electric field (PEF) treatment chamber. *Computers and Chemical Engineering*, **2012**, 37, 48-63	4	25
25	Ultrasound in Enzyme Activation and Inactivation. *Food Engineering Series*, **2011**, 369-404	0.5	36
24	Effect of material properties and processing conditions on the prediction accuracy of a CFD model for simulating high pressure thermal (HPT) processing. *Journal of Food Engineering*, **2011**, 104, 404-413	6	16
23	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	6	45
22	A computational modeling approach of the jet-like acoustic streaming and heat generation induced by low frequency high power ultrasonic horn reactors. *Ultrasonics Sonochemistry*, **2011**, 18, 1263-73	8.9	71
21	High pressure and thermal inactivation kinetics of polyphenol oxidase and peroxidase in strawberry puree. *Innovative Food Science and Emerging Technologies*, **2010**, 11, 52-60	6.8	193
20	Microwave Processing: Temperature Mapping **2010**, 1080-1085		
19	Carrier optimisation in a pilot-scale high pressure sterilisation plant An iterative CFD approach employing an integrated temperature distributor (ITD). *Journal of Food Engineering*, **2010**, 97, 199-207	6	23
18	Adiabatic compression heating coefficients for high-pressure processing A study of some insulating polymer materials. *Journal of Food Engineering*, **2010**, 98, 110-119	6	54
17	Simulation and evaluation of pilot-scale pulsed electric field (PEF) processing. *Journal of Food Engineering*, **2010**, 101, 67-77	6	58
16	The Thermo-Egg: A Combined Novel Engineering and Reverse Logic Approach for Determining Temperatures at High Pressure. *Food Engineering Reviews*, **2010**, 2, 216-225	6.5	12
15	Adiabatic compression heating coefficients for high-pressure processing of water, propylene-glycol and mixtures A combined experimental and numerical approach. *Journal of Food Engineering*, **2010**, 96, 229-238	6	50
14	C. botulinum inactivation kinetics implemented in a computational model of a high-pressure sterilization process. *Biotechnology Progress*, **2009**, 25, 163-75	2.8	45
13	The pasting properties of sonicated waxy rice starch suspensions. *Ultrasonics Sonochemistry*, **2009**, 16, 462-8	8.9	114
12	Simultaneous microwave heating and three-dimensional MRI temperature mapping. *Innovative Food Science and Emerging Technologies*, **2009**, 10, 537-544	6.8	35

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11	A computational model for calculating temperature distributions in microwave food applications. *Innovative Food Science and Emerging Technologies*, **2008**, 9, 374-384	6.8	56
10	Determination of structural and transport properties of cereal products by optical scanning, magnetic resonance imaging and Monte Carlo simulations. *Journal of Food Engineering*, **2007**, 81, 485-491	6	12
9	Temperatur- und Wasserverteilung bei der konvektiven Trocknung mittels Inline-Magnetresonanztomographie. *Chemie-Ingenieur-Technik*, **2006**, 78, 1112-1115	0.8	0
8	Development of a model food for microwave processing and the prediction of its physical properties. *Journal of Microwave Power and Electromagnetic Energy*, **2004**, 39, 167-77	1.4	13
7	Simulating and Measuring Transient Three-Dimensional Temperature Distributions in Microwave Processing131-153		
6	Multiphysics Modeling of Ohmic Heating155-169		
5	Modeling the Acoustic Field and Streaming Induced by an Ultrasonic Horn Reactor233-264		
4	The Future of Multiphysics Modeling of Innovative Food Processing Technologies353-364		
3	Introduction to Innovative Food Processing Technologies: Background, Advantages, Issues, and Need for Multiphysics Modeling3-21		8
2	The Need for Thermophysical Properties in Simulating Emerging Food Processing Technologies23-38		3
1	Computational Fluid Dynamics Applied in High-Pressure High-Temperature Processes: Spore Inactivation Distribution and Process Optimization75-100		2