

Kai Knoerzer

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Clean recovery of antioxidant compounds from plant foods, by-products and algae assisted by ultrasounds processing. Modeling approaches to optimize processing conditions. <i>Trends in Food Science and Technology</i> , 2015 , 42, 134-149	15.3	251
63	High pressure and thermal inactivation kinetics of polyphenol oxidase and peroxidase in strawberry puree. <i>Innovative Food Science and Emerging Technologies</i> , 2010 , 11, 52-60	6.8	193
62	Effect of acoustic frequency and power density on the aqueous ultrasonic-assisted extraction of grape pomace (<i>Vitis vinifera</i> L.) - a response surface approach. <i>Ultrasonics Sonochemistry</i> , 2014 , 21, 2176-84	8.9	142
61	The pasting properties of sonicated waxy rice starch suspensions. <i>Ultrasonics Sonochemistry</i> , 2009 , 16, 462-8	8.9	114
60	Perspectives from CO+RE: How COVID-19 changed our food systems and food security paradigms. <i>Current Research in Food Science</i> , 2020 , 3, 166-172	5.6	72
59	A computational modeling approach of the jet-like acoustic streaming and heat generation induced by low frequency high power ultrasonic horn reactors. <i>Ultrasonics Sonochemistry</i> , 2011 , 18, 1263-73	8.9	71
58	Separation of suspensions and emulsions via ultrasonic standing waves - a review. <i>Ultrasonics Sonochemistry</i> , 2014 , 21, 2151-64	8.9	67
57	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). <i>Journal of Food Engineering</i> , 2017 , 214, 166-174	6	61
56	Simulation and evaluation of pilot-scale pulsed electric field (PEF) processing. <i>Journal of Food Engineering</i> , 2010 , 101, 67-77	6	58
55	Creaming enhancement in a liter scale ultrasonic reactor at selected transducer configurations and frequencies. <i>Ultrasonics Sonochemistry</i> , 2013 , 20, 52-62	8.9	56
54	A computational model for calculating temperature distributions in microwave food applications. <i>Innovative Food Science and Emerging Technologies</i> , 2008 , 9, 374-384	6.8	56
53	Enhancement of convective drying by application of airborne ultrasound - a response surface approach. <i>Ultrasonics Sonochemistry</i> , 2014 , 21, 2144-50	8.9	54
52	Adiabatic compression heating coefficients for high-pressure processing of a study of some insulating polymer materials. <i>Journal of Food Engineering</i> , 2010 , 98, 110-119	6	54
51	Adiabatic compression heating coefficients for high-pressure processing of water, propylene-glycol and mixtures of a combined experimental and numerical approach. <i>Journal of Food Engineering</i> , 2010 , 96, 229-238	6	50
50	Application of Ultrasound for Oil Separation and Recovery of Palm Oil. <i>JAACS, Journal of the American Oil Chemists Society</i> , 2013 , 90, 579-588	1.8	45
49	C. botulinum inactivation kinetics implemented in a computational model of a high-pressure sterilization process. <i>Biotechnology Progress</i> , 2009 , 25, 163-75	2.8	45
48	Effect of dimensions and geometry of co-field and co-linear pulsed electric field treatment chambers on electric field strength and energy utilisation. <i>Journal of Food Engineering</i> , 2011 , 105, 545-556	6	45

47	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. <i>Journal of Food Engineering</i> , 2017 , 208, 66-76	6	42
46	Ultrasound in Enzyme Activation and Inactivation. <i>Food Engineering Series</i> , 2011 , 369-404	0.5	36
45	Simultaneous microwave heating and three-dimensional MRI temperature mapping. <i>Innovative Food Science and Emerging Technologies</i> , 2009 , 10, 537-544	6.8	35
44	Advances in high frequency ultrasound separation of particulates from biomass. <i>Ultrasonics Sonochemistry</i> , 2017 , 35, 577-590	8.9	33
43	Production of particulates from transducer erosion: implications on food safety. <i>Ultrasonics Sonochemistry</i> , 2014 , 21, 2122-30	8.9	32
42	Low moisture extrusion of pea protein and pea fibre fortified rice starch blends. <i>Journal of Food Engineering</i> , 2018 , 231, 61-71	6	30
41	Megasonic Separation of Food Droplets and Particles: Design Considerations. <i>Food Engineering Reviews</i> , 2015 , 7, 298-320	6.5	29
40	High pressure thermal processing of pears: Effect on endogenous enzyme activity and related quality attributes. <i>Innovative Food Science and Emerging Technologies</i> , 2016 , 33, 56-66	6.8	26
39	Advances in Ultrasonic and Megasonic Processing of Foods. <i>Food Engineering Reviews</i> , 2017 , 9, 237-256	6.5	25
38	An iterative modelling approach for improving the performance of a pulsed electric field (PEF) treatment chamber. <i>Computers and Chemical Engineering</i> , 2012 , 37, 48-63	4	25
37	Multiphysics modelling of the separation of suspended particles via frequency ramping of ultrasonic standing waves. <i>Ultrasonics Sonochemistry</i> , 2013 , 20, 655-66	8.9	23
36	Carrier optimisation in a pilot-scale high pressure sterilisation plant [An iterative CFD approach employing an integrated temperature distributor (ITD)]. <i>Journal of Food Engineering</i> , 2010 , 97, 199-207	6	23
35	Multiphysics Simulation of Innovative Food Processing Technologies. <i>Food Engineering Reviews</i> , 2015 , 7, 64-81	6.5	22
34	Design parameters of stainless steel plates for maximizing high frequency ultrasound wave transmission. <i>Ultrasonics Sonochemistry</i> , 2015 , 26, 56-63	8.9	21
33	Numerical evaluation of lactoperoxidase inactivation during continuous pulsed electric field processing. <i>Biotechnology Progress</i> , 2012 , 28, 1363-75	2.8	19
32	Ultrasound pressure distributions generated by high frequency transducers in large reactors. <i>Ultrasonics Sonochemistry</i> , 2015 , 27, 22-29	8.9	18
31	Effect of material properties and processing conditions on the prediction accuracy of a CFD model for simulating high pressure thermal (HPT) processing. <i>Journal of Food Engineering</i> , 2011 , 104, 404-413	6	16
30	Development of a model food for microwave processing and the prediction of its physical properties. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2004 , 39, 167-77	1.4	13

29	Evaluation of the differences of process variables in vertical and horizontal configurations of High Pressure Thermal (HPT) processing systems through numerical modelling. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 22, 51-62	6.8	12
28	The Thermo-Egg: A Combined Novel Engineering and Reverse Logic Approach for Determining Temperatures at High Pressure. <i>Food Engineering Reviews</i> , 2010 , 2, 216-225	6.5	12
27	Determination of structural and transport properties of cereal products by optical scanning, magnetic resonance imaging and Monte Carlo simulations. <i>Journal of Food Engineering</i> , 2007 , 81, 485-496		12
26	Improved canola oil expeller extraction using a pilot-scale continuous flow microwave system for pre-treatment of seeds and flaked seeds. <i>Journal of Food Engineering</i> , 2020 , 284, 110053	6	10
25	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. <i>Innovative Food Science and Emerging Technologies</i> , 2015 , 27, 35-40	6.8	10
24	Evaluation of methods for determining food surface temperature in the presence of low-pressure cool plasma. <i>Innovative Food Science and Emerging Technologies</i> , 2012 , 15, 23-30	6.8	9
23	Introduction to Innovative Food Processing Technologies: Background, Advantages, Issues, and Need for Multiphysics Modeling		8
22	Continuous combined microwave and hot air treatment of apples for fruit fly (<i>Bactrocera tryoni</i> and <i>B. jarvisi</i>) disinfestation. <i>Innovative Food Science and Emerging Technologies</i> , 2015 , 29, 261-270	6.8	6
21	Nonthermal and Innovative Food Processing Technologies 2016 ,		5
20	The Need for Thermophysical Properties in Simulating Emerging Food Processing Technologies		3
19	Designing, Modeling, and Optimizing Processes to Ensure Microbial Safety and Stability Through Emerging Technologies 2018 , 187-229		2
18	High Pressure Processing 2016 ,		2
17	Computational Fluid Dynamics Applied in High-Pressure High-Temperature Processes: Spore Inactivation Distribution and Process Optimization		2
16	A Review: Protein-Fortified Low Moisture Extrusion 2017 ,		1
15	Long term food stability for extended space missions: a review.. <i>Life Sciences in Space Research</i> , 2022 , 32, 79-95	2.4	1
14	Modeling High-Pressure Processes: Equipment Design, Process Performance Evaluation, and Validation. <i>Food Engineering Series</i> , 2016 , 217-252	0.5	0
13	Temperatur- und Wasserverteilung bei der konvektiven Trocknung mittels Inline-Magnetresonanztomographie. <i>Chemie-Ingenieur-Technik</i> , 2006 , 78, 1112-1115	0.8	0
12	Multiphysics Modelling of Innovative Food Processing Technologies 2017 , 435-455		

- 11 Adiabatic Compression Heating Properties of Solids **2019**,
- 10 Multiphysics Modelling of High-Pressure Processing **2019**,
- 9 Impact of Insoluble Fibre Addition in Low Moisture Extrusion Processes **2017**,
- 8 Microwave Processing: Temperature Mapping **2010**, 1080-1085
- 7 Adiabatic Compression Heating Properties of Liquids **2019**,
- 6 Simulating and Measuring Transient Three-Dimensional Temperature Distributions in Microwave Processing 131-153
- 5 Multiphysics Modeling of Ohmic Heating 155-169
- 4 Modeling the Acoustic Field and Streaming Induced by an Ultrasonic Horn Reactor 233-264
- 3 The Future of Multiphysics Modeling of Innovative Food Processing Technologies 353-364
- 2 Food Process Engineering Research and Innovation in a Fast-Changing World. *Food Engineering Series*, **2013**, 1-40 0.5
- 1 Measuring Temperatures in Microwave Applications **2016**,