Paula Bourke

List of Publications by Year
in descending order

126 papers	10,502 citations	29994 54 h-index	33814 99 g-index
130 all docs	130 docs citations	130 times ranked	7657 citing authors

#	Article	IF	Citations
1	The antimicrobial efficacy of plant essential oil combinations and interactions with food ingredients. International Journal of Food Microbiology, 2008, 124, 91-97.	2.1	689
2	Application of Natural Antimicrobials for Food Preservation. Journal of Agricultural and Food Chemistry, 2009, 57, 5987-6000.	2.4	618
3	Antimicrobial activity of plant essential oils using food model media: Efficacy, synergistic potential and interactions with food components. Food Microbiology, 2009, 26, 142-150.	2.1	427
4	Applications of cold plasma technology in food packaging. Trends in Food Science and Technology, 2014, 35, 5-17.	7.8	393
5	Atmospheric cold plasma inactivation of Escherichia coli, Salmonella enterica serovar Typhimurium and Listeria monocytogenes inoculated on fresh produce. Food Microbiology, 2014, 42, 109-116.	2.1	341
6	Effect of ultrasonic processing on food enzymes of industrial importance. Trends in Food Science and Technology, 2010, 21, 358-367.	7.8	339
7	In-package atmospheric pressure cold plasma treatment of strawberries. Journal of Food Engineering, 2014, 125, 131-138.	2.7	306
8	Mechanisms of Inactivation by High-Voltage Atmospheric Cold Plasma Differ for Escherichia coli and Staphylococcus aureus. Applied and Environmental Microbiology, 2016, 82, 450-458.	1.4	295
9	Microbiological interactions with cold plasma. Journal of Applied Microbiology, 2017, 123, 308-324.	1.4	276
10	The Potential of Cold Plasma for Safe and Sustainable Food Production. Trends in Biotechnology, 2018, 36, 615-626.	4.9	270
11	In-package atmospheric pressure cold plasma treatment of cherry tomatoes. Journal of Bioscience and Bioengineering, 2014, 118, 177-182.	1.1	236
12	Atmospheric cold plasma inactivation of <i>Escherichia coli</i> in liquid media inside a sealed package. Journal of Applied Microbiology, 2013, 114, 778-787.	1.4	201
13	Atmospheric cold plasma dissipation efficiency of agrochemicals on blueberries. Innovative Food Science and Emerging Technologies, 2017, 44, 235-241.	2.7	197
14	Bacterial inactivation by high-voltage atmospheric cold plasma: influence of process parameters and effects on cell leakage and DNA. Journal of Applied Microbiology, 2014, 116, 784-794.	1.4	166
15	Effects of atmospheric cold plasma and ozone on prebiotic orange juice. Innovative Food Science and Emerging Technologies, 2015, 32, 127-135.	2.7	165
16	Pesticide degradation in water using atmospheric air cold plasma. Journal of Water Process Engineering, 2016, 9, 225-232.	2.6	165
17	Cold plasma inactivation of internalised bacteria and biofilms for Salmonella enterica serovar Typhimurium, Listeria monocytogenes and Escherichia coli. International Journal of Food Microbiology, 2015, 210, 53-61.	2.1	153
18	Cold Plasma in Modified Atmospheres for Post-harvest Treatment of Strawberries. Food and Bioprocess Technology, 2014, 7, 3045-3054.	2.6	147

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19	Effects of dielectric barrier discharge (DBD) generated plasma on microbial reduction and quality parameters of fresh mackerel (Scomber scombrus) fillets. Innovative Food Science and Emerging Technologies, 2017, 44, 117-122.	2.7	140
20	Influence of high voltage atmospheric cold plasma process parameters and role of relative humidity on inactivation of Bacillus atrophaeus spores inside a sealed package. Journal of Hospital Infection, 2014, 88, 162-169.	1.4	139
21	Cold Plasmas for Biofilm Control: Opportunities and Challenges. Trends in Biotechnology, 2018, 36, 627-638.	4.9	137
22	Achieving reactive species specificity within plasmaâ€activated water through selective generation using air spark and glow discharges. Plasma Processes and Polymers, 2017, 14, 1600207.	1.6	132
23	In-package nonthermal plasma degradation of pesticides on fresh produce. Journal of Hazardous Materials, 2014, 271, 33-40.	6.5	129
24	Recent Advances in the Application of Cold Plasma Technology in Foods. Annual Review of Food Science and Technology, 2018, 9, 609-629.	5.1	128
25	Cold Plasma Inactivation of Bacterial Biofilms and Reduction of Quorum Sensing Regulated Virulence Factors. PLoS ONE, 2015, 10, e0138209.	1.1	124
26	Characterization of polylactic acid films for food packaging as affected by dielectric barrier discharge atmospheric plasma. Innovative Food Science and Emerging Technologies, 2014, 21, 107-113.	2.7	121
27	Post-discharge gas composition of a large-gap DBD in humid air by UVâ€"Vis absorption spectroscopy. Plasma Sources Science and Technology, 2014, 23, 065033.	1.3	119
28	Cytotoxic and mutagenic potential of solutions exposed to cold atmospheric plasma. Scientific Reports, 2016, 6, 21464.	1.6	115
29	Translation of plasma technology from the lab to the food industry. Plasma Processes and Polymers, 2018, 15, 1700085.	1.6	114
30	Efficacy of Plant Essential Oils against Foodborne Pathogens and Spoilage Bacteria Associated with Ready-to-Eat Vegetables: Antimicrobial and Sensory Screening. Journal of Food Protection, 2008, 71, 1846-1854.	0.8	111
31	Improving microbiological safety and quality characteristics of wheat and barley by high voltage atmospheric cold plasma closed processing. Food Research International, 2018, 106, 509-521.	2.9	104
32	Inactivation of Escherichia coli in orange juice using ozone. Innovative Food Science and Emerging Technologies, 2009, 10, 551-557.	2.7	103
33	Available technologies on improving the stability of polyphenols in food processing. Food Frontiers, 2021, 2, 109-139.	3.7	98
34	Shelf-life extension of herring (Clupea harengus) using in-package atmospheric plasma technology. Innovative Food Science and Emerging Technologies, 2019, 53, 85-91.	2.7	90
35	Impact of plant essential oils on microbiological, organoleptic and quality markers of minimally processed vegetables. Innovative Food Science and Emerging Technologies, 2009, 10, 195-202.	2.7	88
36	The effects of acid adaptation on Escherichia coli inactivation using power ultrasound. Innovative Food Science and Emerging Technologies, 2009, 10, 486-490.	2.7	88

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37	Dielectric barrier discharge atmospheric air plasma treatment of high amylose corn starch films. LWT - Food Science and Technology, 2015, 63, 1076-1082.	2.5	86
38	Physicochemical characterization of plasma-treated sodium caseinate film. Food Research International, 2014, 66, 438-444.	2.9	84
39	Characterisation of cold plasma treated beef and dairy lipids using spectroscopic and chromatographic methods. Food Chemistry, 2017, 235, 324-333.	4.2	84
40	Effect of atmospheric cold plasma on the functional properties of whole wheat (Triticum aestivum L.) grain and wheat flour. Innovative Food Science and Emerging Technologies, 2020, 66, 102529.	2.7	83
41	Zein film: Effects of dielectric barrier discharge atmospheric cold plasma. Journal of Applied Polymer Science, 2014, 131, .	1.3	74
42	The antimicrobial efficacy and structure activity relationship of novel carbohydrate fatty acid derivatives against Listeria spp. and food spoilage microorganisms. International Journal of Food Microbiology, 2009, 128, 440-445.	2.1	73
43	Plasma activated water and airborne ultrasound treatments for enhanced germination and growth of soybean. Innovative Food Science and Emerging Technologies, 2018, 49, 13-19.	2.7	72
44	Ozone Processing for Food Preservation: An Overview on Fruit Juice Treatments. Ozone: Science and Engineering, 2010, 32, 166-179.	1.4	71
45	Investigation of mechanisms involved in germination enhancement of wheat (<i>Triticum) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf and Polymers, 2019, 16, 1800148.	1.6	69
46	1H NMR spectroscopy and chemometrics evaluation of non-thermal processing of orange juice. Food Chemistry, 2016, 204, 102-107.	4.2	68
47	Efficacy of cold plasma functionalised water for improving microbiological safety of fresh produce and wash water recycling. Food Microbiology, 2019, 84, 103226.	2.1	67
48	Current and Future Technologies for Microbiological Decontamination of Cereal Grains. Journal of Food Science, 2018, 83, 1484-1493.	1.5	64
49	Degradation kinetics of cold plasma-treated antibiotics and their antimicrobial activity. Scientific Reports, 2019, 9, 3955.	1.6	63
50	Atmospheric cold plasma interactions with modified atmosphere packaging inducer gases for safe food preservation. Innovative Food Science and Emerging Technologies, 2016, 38, 384-392.	2.7	60
51	Fructooligosaccharides integrity after atmospheric cold plasma and high-pressure processing of a functional orange juice. Food Research International, 2017, 102, 282-290.	2.9	60
52	Investigation of a large gap cold plasma reactor for continuous in-package decontamination of fresh strawberries and spinach. Innovative Food Science and Emerging Technologies, 2020, 59, 102229.	2.7	60
53	The effect of atmospheric cold plasma treatment on the antigenic properties of bovine milk casein and whey proteins. Food Chemistry, 2021, 342, 128283.	4.2	58
54	Genetic diversity and population structure of Brassica oleracea germplasm in Ireland using SSR markers. Comptes Rendus - Biologies, 2016, 339, 133-140.	0.1	57

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55	High voltage atmospheric cold air plasma control of bacterial biofilms on fresh produce. International Journal of Food Microbiology, 2019, 293, 137-145.	2.1	56
56	Inactivation of Escherichia coli by ozone treatment of apple juice at different pH levels. Food Microbiology, 2010, 27, 835-840.	2.1	55
57	Assessment of the disinfection capacity and eco-toxicological impact of atmospheric cold plasma for treatment of food industry effluents. Science of the Total Environment, 2018, 631-632, 298-307.	3.9	55
58	Synthesis and antimicrobial evaluation of carbohydrate and polyhydroxylated non-carbohydrate fatty acid ester and ether derivatives. Carbohydrate Research, 2008, 343, 2557-2566.	1.1	53
59	Effect of cold plasma on polyphenol oxidase inactivation in cloudy apple juice and on the quality parameters of the juice during storage. Food Chemistry: X, 2019, 3, 100049.	1.8	52
60	Inactivation Efficacies and Mechanisms of Gas Plasma and Plasma-Activated Water against Aspergillus flavus Spores and Biofilms: a Comparative Study. Applied and Environmental Microbiology, 2020, 86, .	1.4	50
61	Demonstrating the Potential of Industrial Scale In-Package Atmospheric Cold Plasma for Decontamination of Cherry Tomatoes. Plasma Medicine, 2016, 6, 397-412.	0.2	49
62	Novel decontamination approaches and their potential application for post-harvest aflatoxin control. Trends in Food Science and Technology, 2020, 106, 489-496.	7.8	48
63	Controlling Microbial Safety Challenges of Meat Using High Voltage Atmospheric Cold Plasma. Frontiers in Microbiology, 2016, 7, 977.	1.5	47
64	Controlling Brochothrix thermosphacta as a spoilage risk using in-package atmospheric cold plasma. Food Microbiology, 2017, 66, 48-54.	2.1	46
65	Dielectric Barrier Discharge Atmospheric Cold Plasma for Inactivation of Pseudomonas aeruginosa Biofilms. Plasma Medicine, 2014, 4, 137-152.	0.2	45
66	Surface, Thermal and Antimicrobial Release Properties of Plasma-Treated Zein Films. Journal of Renewable Materials, 2014, 2, 77-84.	1.1	44
67	Efficacy and mechanistic insights into endocrine disruptor degradation using atmospheric air plasma. Chemical Engineering Journal, 2017, 326, 700-714.	6.6	43
68	Generation of In-Package Cold Plasma and Efficacy Assessment Using Methylene Blue. Plasma Chemistry and Plasma Processing, 2015, 35, 1043-1056.	1.1	42
69	Safety implications of plasma-induced effects in living cells â€“ a review of <i>in vitro</i> and <i>in vivo</i> findings. Biological Chemistry, 2018, 400, 3-17.	1.2	42
70	Assessing the microbial oxidative stress mechanism of ozone treatment through the responses of Escherichia coli mutants. Journal of Applied Microbiology, 2011, 111, 136-144.	1.4	41
71	An untargeted chemometric evaluation of plasma and ozone processing effect on volatile compounds in orange juice. Innovative Food Science and Emerging Technologies, 2019, 53, 63-69.	2.7	41
72	Safety and Quality Assessment during the Ozonation of Cloudy Apple Juice. Journal of Food Science, 2010, 75, M437-43.	1.5	40

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73	The potential of atmospheric air cold plasma for control of bacterial contaminants relevant to cereal grain production. Innovative Food Science and Emerging Technologies, 2017, 44, 36-45.	2.7	39
74	AFLP analysis of genetic diversity and phylogenetic relationships of Brassica oleracea in Ireland. Comptes Rendus - Biologies, 2016, 339, 163-170.	0.1	38
75	Characterising the impact of postâ€treatment storage on chemistry and antimicrobial properties of plasma treated water derived from microwave and DBD sources. Plasma Processes and Polymers, 2018, 15, 1700127.	1.6	38
76	Characterization of dielectric barrier discharge atmospheric air cold plasma treated gelatin films. Food Packaging and Shelf Life, 2015, 6, 61-67.	3.3	34
77	Quantitative assessment of the shelf life of ozonated apple juice. European Food Research and Technology, 2011, 232, 469-477.	1.6	31
78	Quantitative Assessment of Blood Coagulation by Cold Atmospheric Plasma. Plasma Medicine, 2014, 4, 153-163.	0.2	31
79	Ozone inactivation of acid stressed Listeria monocytogenes and Listeria innocua in orange juice using a bubble column. Food Control, 2010, 21, 1723-1730.	2.8	30
80	Analysis of antibiotic resistance patterns and detection of mecA gene in Staphylococcus aureus isolated from packaged hamburger. Meat Science, 2012, 90, 759-763.	2.7	30
81	Hydrogen Peroxide and Beyond-the Potential of High-voltage Plasma-activated Liquids Against Cancerous Cells. Anti-Cancer Agents in Medicinal Chemistry, 2018, 18, 815-823.	0.9	30
82	Optimization of atmospheric air plasma for degradation of organic dyes in wastewater. Water Science and Technology, 2017, 75, 207-219.	1.2	29
83	Improving enzymatic hydrolysis of brewer spent grain with nonthermal plasma. Bioresource Technology, 2019, 282, 520-524.	4.8	27
84	Temperature Stability and Effectiveness of Plasma-Activated Liquids over an 18 Months Period. Water (Switzerland), 2020, 12, 3021.	1.2	26
85	Evaluation of plasma, highâ€pressure and ultrasound processing on the stability of fructooligosaccharides. International Journal of Food Science and Technology, 2016, 51, 2034-2040.	1.3	25
86	<i>In vitro</i>antimicrobial activity and mechanism of action of novel carbohydrate fatty acid derivatives against<i>Staphylococcus aureus</i>and MRSA. Journal of Applied Microbiology, 2009, 108, 2152-61.	1.4	24
87	Plasma-Functionalized Water: from Bench to Prototype for Fresh-Cut Lettuce. Food Engineering Reviews, 2021, 13, 115-135.	3.1	24
88	Characterization of Dielectric Barrier Discharge Atmospheric Air Plasma Treated Chitosan Films. Journal of Food Processing and Preservation, 2017, 41, e12889.	0.9	23
89	Controlled cytotoxicity of plasma treated water formulated by open-air hybrid mode discharge. Applied Physics Letters, 2017, 110, 264102.	1.5	23
90	Cold Atmospheric Plasma Stimulates Clathrin-Dependent Endocytosis to Repair Oxidised Membrane and Enhance Uptake of Nanomaterial in Glioblastoma Multiforme Cells. Scientific Reports, 2020, 10, 6985.	1.6	23

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91	Extrinsic control parameters for ozone inactivation of<i>Escherichia coli</i>using a bubble column. Journal of Applied Microbiology, 2009, 107, 830-837.	1.4	22
92	Effects of cold plasma on wheat grain microbiome and antimicrobial efficacy against challenge pathogens and their resistance. International Journal of Food Microbiology, 2020, 335, 108889.	2.1	22
93	Assessing bacterial recovery and efficacy of cold atmospheric plasma treatments. Food and Bioproducts Processing, 2015, 96, 154-160.	1.8	21
94	Effects of Cold Plasma on Surface, Thermal and Antimicrobial Release Properties of Chitosan Film. Journal of Renewable Materials, 2017, 5, 14-20.	1.1	21
95	Humic acid and trihalomethane breakdown with potential by-product formations for atmospheric air plasma water treatment. Journal of Industrial and Engineering Chemistry, 2018, 59, 350-361.	2.9	20
96	Effects of packaging type, gas atmosphere and storage temperature on survival and growth of Listeria spp. in shredded dry coleslaw and its components. International Journal of Food Science and Technology, 2004, 39, 509-523.	1.3	19
97	Ozone Processing of Fluid Foods. , 2012, , 225-261.		19
98	Understanding the Differences Between Antimicrobial and Cytotoxic Properties of Plasma Activated Liquids. Plasma Medicine, 2018, 8, 299-320.	0.2	19
99	Assessing stress responses to atmospheric cold plasma exposure using<i>Escherichia coli</i>knock-out mutants. Journal of Applied Microbiology, 2016, 121, 352-363.	1.4	18
100	The Effect of Atmospheric Cold Plasma on Bacterial Stress Responses and Virulence Using Listeria monocytogenes Knockout Mutants. Frontiers in Microbiology, 2019, 10, 2841.	1.5	18
101	Cold atmospheric plasma is a viable solution for treating orthopedic infection: a review. Biological Chemistry, 2018, 400, 77-86.	1.2	17
102	Inducing a Dielectric Barrier Discharge Plasma Within a Package. IEEE Transactions on Plasma Science, 2014, 42, 2368-2369.	0.6	16
103	Combination of Natural Compounds With Novel Non-thermal Technologies for Poultry Products: A Review. Frontiers in Nutrition, 2021, 8, 628723.	1.6	15
104	Distinct Chemistries Define the Diverse Biological Effects of Plasma Activated Water Generated with Spark and Glow Plasma Discharges. Applied Sciences (Switzerland), 2021, 11, 1178.	1.3	14
105	Characterization of an atmospheric pressure air plasma device under different modes of operation and their impact on the liquid chemistry. Journal of Applied Physics, 2021, 129, .	1.1	13
106	Principles of Nonthermal Plasma Decontamination. , 2016, , 143-177.		11
107	Assessing the Biological Safety of Atmospheric Cold Plasma Treated Wheat Using Cell and Insect Models. Foods, 2020, 9, 898.	1.9	10
108	Combined effect of plasma treatment and equilibrium modified atmosphere packaging on safety and quality of cherry tomatoes. Future Foods, 2021, 3, 100011.	2.4	10

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109	Cold plasma for insect pest control: <i>Tribolium castaneum</i> mortality and defense mechanisms in response to treatment. Plasma Processes and Polymers, 2021, 18, 2000178.	1.6	10
110	Assessment of Morphological Variation in Irish Brassica oleracea Species. Journal of Agricultural Science, 2012, 4, .	0.1	9
111	Application of phosphorescent oxygen sensors in in-package dielectric barrier discharge plasma environment. Innovative Food Science and Emerging Technologies, 2016, 33, 234-239.	2.7	9
112	Safety evaluation of plasma-treated lettuce broth using<i>in vitro</i>and<i>in vivo</i>toxicity models. Journal Physics D: Applied Physics, 2020, 53, 274003.	1.3	9
113	Efficacy of Cold Plasma for Direct Deposition of Antibiotics as a Novel Approach for Localized Delivery and Retention of Effect. Frontiers in Cellular and Infection Microbiology, 2019, 9, 428.	1.8	8
114	Inner surface biofilm inactivation by atmospheric pressure helium porous plasma jet. Plasma Processes and Polymers, 2018, 15, 1800055.	1.6	7
115	Optimizing the application of plasma functionalised water (PFW) for microbial safety in fresh-cut endive processing. Innovative Food Science and Emerging Technologies, 2021, 72, 102745.	2.7	7
116	Emerging green cell disruption techniques to obtain valuable compounds from macro and microalgae: a review. Critical Reviews in Biotechnology, 2023, 43, 904-919.	5.1	7
117	The Effect of Plasma Treated Water Unit Processes on the Food Quality Characteristics of Fresh-Cut Endive. Frontiers in Nutrition, 2020, 7, 627483.	1.6	6
118	In situ production of human Î² defensin-3 in lager yeasts provides bactericidal activity against beer-spoiling bacteria under fermentation conditions. Journal of Applied Microbiology, 2014, 116, 368-379.	1.4	5
119	Hydra as a Model for Screening Ecotoxicological Effects of Plasma-Treated Water. Plasma Medicine, 2018, 8, 225-236.	0.2	4
120	Deposition of Cell Culture Coatings Using a Cold Plasma Deposition Method. Applied Sciences (Switzerland), 2020, 10, 6670.	1.3	3
121	Direct Plasma Deposition of Collagen on 96-Well Polystyrene Plates for Cell Culture. ACS Omega, 2020, 5, 25069-25076.	1.6	3
122	Inactivation of Staphylococcus aureus in Foods by Thermal and Nonthermal Control Strategies. , 2018, , 235-255.		2
123	Plasma Treatment of Liquids. , 2021, , 610-634.		2
124	Biomolecules as Model Indicators of In Vitro and In Vivo Cold Plasma Safety. Frontiers in Physics, 2021, 8, .	1.0	1
125	Combination of Green Extraction Techniques and Essential Oils to Develop Active Packaging for Improving the Quality and Shelf Life for Chicken Meat. Food Reviews International, 2023, 39, 3783-3805.	4.3	1
126	Plasma activated liquids: New decontamination solutions. Access Microbiology, 2020, 2, .	0.2	0