Enda Cummins

List of Publications by Year
in descending order

111 papers	4,592 citations	126708 33 h-index	114278 63 g-index
117 all docs	117 docs citations	117 times ranked	5588 citing authors

#	Article	IF	Citations
1	Nanotechnologies in the food industry â€" Recent developments, risks and regulation. Trends in Food Science and Technology, 2012, 24, 30-46.	7.8	541
2	Human health concerns regarding microplastics in the aquatic environment - From marine to food systems. Science of the Total Environment, 2022, 823, 153730.	3.9	230
3	Factors influencing levels of phytochemicals in selected fruit and vegetables during pre- and post-harvest food processing operations. Food Research International, 2013, 50, 497-506.	2.9	202
4	Antimicrobial activity of chitosan, organic acids and nano-sized solubilisates for potential use in smart antimicrobially-active packaging for potential food applications. Food Control, 2013, 34, 393-397.	2.8	190
5	Evaluation and Simulation of Silver and Copper Nanoparticle Migration from Polyethylene Nanocomposites to Food and an Associated Exposure Assessment. Journal of Agricultural and Food Chemistry, 2014, 62, 1403-1411.	2.4	168
6	Meta-analysis of the effect of Î²-glucan intake on blood cholesterol and glucose levels. Nutrition, 2011, 27, 1008-1016.	1.1	141
7	Perspectives from CO+RE: How COVID-19 changed our food systems and food security paradigms. Current Research in Food Science, 2020, 3, 166-172.	2.7	134
8	Migration and exposure assessment of silver from a PVC nanocomposite. Food Chemistry, 2013, 139, 389-397.	4.2	129
9	Advances and challenges for the use of engineered nanoparticles in food contact materials. Trends in Food Science and Technology, 2015, 43, 43-62.	7.8	118
10	Ranking initial environmental and human health risk resulting from environmentally relevant nanomaterials. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2010, 45, 992-1007.	0.9	103
11	Effects of a combination of antimicrobial silver low density polyethylene nanocomposite films and modified atmosphere packaging on the shelf life of chicken breast fillets. Food Packaging and Shelf Life, 2015, 4, 26-35.	3.3	100
12	Factors Influencing Î²â€Glucan Levels and Molecular Weight in Cerealâ€Based Products. Cereal Chemistry, 2009, 86, 290-301.	1.1	94
13	Nutritional importance and effect of processing on tocols in cereals. Trends in Food Science and Technology, 2009, 20, 511-520.	7.8	82
14	Evaluation of â€œClassicâ€•and Emerging Contaminants Resulting from the Application of Biosolids to Agricultural Lands: A Review. Human and Ecological Risk Assessment (HERA), 2015, 21, 492-513.	1.7	82
15	Ranking of potential hazards from microplastics polymers in the marine environment. Journal of Hazardous Materials, 2022, 429, 128399.	6.5	81
16	A review of quantitative microbial risk assessment in the management of Escherichia coli O157:H7 on beef. Meat Science, 2006, 74, 76-88.	2.7	80
17	Urease and Nitrification Inhibitorsâ€"As Mitigation Tools for Greenhouse Gas Emissions in Sustainable Dairy Systems: A Review. Sustainability, 2020, 12, 6018.	1.6	71
18	The potential use of a layer-by-layer strategy to develop LDPE antimicrobial films coated with silver nanoparticles for packaging applications. Journal of Colloid and Interface Science, 2016, 461, 239-248.	5.0	69

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19	Development of a pathogen transport model for Irish catchments using SWAT. Agricultural Water Management, 2010, 97, 101-111.	2.4	67
20	Antimicrobial Residues and Antimicrobial-Resistant Bacteria: Impact on the Microbial Environment and Risk to Human Health—A Review. Human and Ecological Risk Assessment (HERA), 2012, 18, 767-809.	1.7	67
21	Exposure assessment of mycotoxins in dairy milk. Food Control, 2009, 20, 239-249.	2.8	64
22	Nano-Scale Pollutants: Fate in Irish Surface and Drinking Water Regulatory Systems. Human and Ecological Risk Assessment (HERA), 2010, 16, 847-872.	1.7	62
23	The Potential Application of Antimicrobial Silver Polyvinyl Chloride Nanocomposite Films to Extend the Shelf-Life of Chicken Breast Fillets. Food and Bioprocess Technology, 2016, 9, 1661-1673.	2.6	58
24	Antibiotic resistance in surface water ecosystems: Presence in the aquatic environment, prevention strategies, and risk assessment. Human and Ecological Risk Assessment (HERA), 2017, 23, 299-322.	1.7	55
25	Modeling of Pathogen Indicator Organisms in a Small-Scale Agricultural Catchment Using SWAT. Human and Ecological Risk Assessment (HERA), 2013, 19, 232-253.	1.7	52
26	Risk factors and assessment strategies for the evaluation of human or environmental risk from metal(loid)s â€" A focus on Ireland. Science of the Total Environment, 2022, 802, 149839.	3.9	47
27	Recent Developments in Nanotechnology and Risk Assessment Strategies for Addressing Public and Environmental Health Concerns. Human and Ecological Risk Assessment (HERA), 2008, 14, 568-592.	1.7	45
28	Quantitative risk assessment of Cryptosporidium in tap water in Ireland. Science of the Total Environment, 2010, 408, 740-753.	3.9	45
29	Antimicrobial resistant Escherichia coli in the municipal wastewater system: Effect of hospital effluent and environmental fate. Science of the Total Environment, 2014, 468-469, 1078-1085.	3.9	43
30	Silver engineered nanoparticles in freshwater systems â€" Likely fate and behaviour through natural attenuation processes. Science of the Total Environment, 2018, 621, 1033-1046.	3.9	43
31	Microbial Exposure Assessment of Waterborne Pathogens. Human and Ecological Risk Assessment (HERA), 2007, 13, 1313-1351.	1.7	42
32	Application of silver nanodots for potential use in antimicrobial packaging applications. Innovative Food Science and Emerging Technologies, 2015, 27, 136-143.	2.7	41
33	State of the art review of Big Data and web-based Decision Support Systems (DSS) for food safety risk assessment with respect to climate change. Trends in Food Science and Technology, 2022, 126, 192-204.	7.8	37
34	Hazard characterization of silver nanoparticles for human exposure routes. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2020, 55, 704-725.	0.9	34
35	Development and validation of a probabilistic second-order exposure assessment model for Escherichia coli O157:H7 contamination of beef trimmings from Irish meat plants. Meat Science, 2008, 79, 139-154.	2.7	33
36	Simulation of the factors affecting Î²-glucan levels during the cultivation of oats. Journal of Cereal Science, 2009, 50, 175-183.	1.8	33

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37	Groundwater Vulnerability Assessment of Plant Protection Products: A Review. Human and Ecological Risk Assessment (HERA), 2010, 16, 621-650.	1.7	33
38	Bisphenol A and Metabolites in Meat and Meat Products: Occurrence, Toxicity, and Recent Development in Analytical Methods. Foods, 2021, 10, 714.	1.9	31
39	Assessing the Effects of Climate Change on Waterborne Microorganisms: Implications for EU and U.S. Water Policy. Human and Ecological Risk Assessment (HERA), 2014, 20, 724-742.	1.7	30
40	A quantitative microbial risk assessment model for total coliforms and E.Âcoli in surface runoff following application of biosolids to grassland. Environmental Pollution, 2017, 224, 739-750.	3.7	30
41	Development of active, nanoparticle, antimicrobial technologies for muscle-based packaging applications. Meat Science, 2017, 132, 163-178.	2.7	29
42	Development of a semi-quantitative risk assessment model for evaluating environmental threat posed by the three first EU watch-list pharmaceuticals to urban wastewater treatment plants: An Irish case study. Science of the Total Environment, 2017, 603-604, 627-638.	3.9	29
43	Quantification and feed to food transfer of total and inorganic arsenic from a commercial seaweed feed. Environment International, 2018, 118, 314-324.	4.8	29
44	Antimicrobial effect of benzoic and sorbic acid salts and nano-solubilisates against Staphylococcus aureus, Pseudomonas fluorescens and chicken microbiota biofilms. Food Control, 2020, 107, 106786.	2.8	29
45	A Systematic Review of Beef Meat Quantitative Microbial Risk Assessment Models. International Journal of Environmental Research and Public Health, 2020, 17, 688.	1.2	28
46	A Review and Evaluation of Plant Protection Product Ranking Tools Used in Agriculture. Human and Ecological Risk Assessment (HERA), 2011, 17, 300-327.	1.7	26
47	The effect of conventional wastewater treatment on the levels of antimicrobial-resistant bacteria in effluent: a meta-analysis of current studies. Environmental Geochemistry and Health, 2012, 34, 749-762.	1.8	26
48	The effect of hospital effluent on antimicrobial resistant E. coli within a municipal wastewater system. Environmental Sciences: Processes and Impacts, 2013, 15, 617.	1.7	26
49	Human exposure assessment of silver and copper migrating from an antimicrobial nanocoated packaging material into an acidic food simulant. Food and Chemical Toxicology, 2016, 95, 128-136.	1.8	26
50	A predictive model of the effects of genotypic, preâ€•and postharvest stages on barley Î²â€•glucan levels. Journal of the Science of Food and Agriculture, 2008, 88, 2277-2287.	1.7	25
51	A comparative risk ranking of antibiotic pollution from human and veterinary antibiotic usage â€" An Irish case study. Science of the Total Environment, 2022, 826, 154008.	3.9	25
52	Ecology and molecular typing of L. monocytogenes in a processing plant for cold-smoked salmon in the Republic of Ireland. Food Research International, 2010, 43, 1529-1536.	2.9	23
53	Kinetic desorption models for the release of nanosilver from an experimental nanosilver coating on polystyrene food packaging. Innovative Food Science and Emerging Technologies, 2017, 44, 149-158.	2.7	23
54	Feed to fork risk assessment of mycotoxins under climate change influences - recent developments. Trends in Food Science and Technology, 2022, 126, 126-141.	7.8	23

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55	A quantitative risk ranking model to evaluate emerging organic contaminants in biosolid amended land and potential transport to drinking water. Human and Ecological Risk Assessment (HERA), 2016, 22, 958-990.	1.7	21
56	A survey of acrylamide precursors in Irish ware potatoes and acrylamide levels in French fries. LWT - Food Science and Technology, 2007, 40, 1601-1609.	2.5	20
57	Probabilistic methodology for assessing changes in the level and molecular weight of barley Î²-glucan during bread baking. Food Chemistry, 2011, 124, 1567-1576.	4.2	20
58	Evaluation of modified casings and chitosanâ€PVA packaging on the physicochemical properties of cooked Sichuan sausages during longâ€term storage. International Journal of Food Science and Technology, 2017, 52, 1777-1788.	1.3	20
59	Antibiotic residues in the aquatic environment â€" current perspective and risk considerations. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2021, 56, 733-751.	0.9	20
60	A quantitative risk assessment for metals in surface water following the application of biosolids to grassland. Science of the Total Environment, 2016, 566-567, 102-112.	3.9	19
61	Migration assessment of silver from nanosilver spray coated low density polyethylene or polyester films into milk. Food Packaging and Shelf Life, 2018, 15, 144-150.	3.3	19
62	Analysis of the soil and water assessment tool (SWAT) to model Cryptosporidium in surface water sources. Biosystems Engineering, 2010, 106, 303-314.	1.9	18
63	Assessment of the migration potential of nanosilver from nanoparticle-coated low-density polyethylene food packaging into food simulants. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2016, 33, 1-12.	1.1	18
64	Quantitative risk assessment of antimicrobials in biosolids applied on agricultural land and potential translocation into food. Food Research International, 2018, 106, 1049-1060.	2.9	17
65	A Monte Carlo Risk Assessment Model for Acrylamide Formation in French Fries. Risk Analysis, 2009, 29, 1410-1426.	1.5	16
66	Co-Fuelling of Peat with Meat and Bone Meal in a Pilot Scale Bubbling Bed Reactor. Energies, 2010, 3, 1369-1382.	1.6	16
67	Assessing the vulnerability of groundwater to pollution in Ireland based on the COST-620 Pan-European approach. Journal of Environmental Management, 2014, 133, 162-173.	3.8	16
68	Review of Quantitative Microbial Risk Assessment in Poultry Meat: The Central Position of Consumer Behavior. Foods, 2020, 9, 1661.	1.9	16
69	PREVALENCE AND TYPING OF <i>LISTERIA MONOCYTOGENES</i> STRAINS IN RETAIL VACUUMâ€PACKED COLDâ€SMOKED SALMON IN THE REPUBLIC OF IRELAND. Journal of Food Safety, 2011, 31, 21-27.	1.1	15
70	Pathogen Sources Estimation and Scenario Analysis Using the Soil and Water Assessment Tool (SWAT). Human and Ecological Risk Assessment (HERA), 2010, 16, 913-933.	1.7	14
71	Functional and physicochemical properties of legume fibers. , 2011, , 121-156.		14
72	Dietary exposure assessment of Î²-glucan in a barley and oat based bread. LWT - Food Science and Technology, 2012, 47, 413-420.	2.5	14

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73	A comparison of oat flour and oat bran€based bread formulations. British Food Journal, 2013, 115, 300-313.	1.6	14
74	A Quantitative Approach for Ranking Human Health Risks from Pesticides in Irish Groundwater. Human and Ecological Risk Assessment (HERA), 2012, 18, 1156-1185.	1.7	13
75	Risk Ranking of Antimicrobials in the Aquatic Environment from Human Consumption: An Irish Case Study. Human and Ecological Risk Assessment (HERA), 2013, 19, 1264-1284.	1.7	12
76	Sensitivity of streamflow and microbial water quality to future climate and land use change in the West of Ireland. Regional Environmental Change, 2016, 16, 2111-2128.	1.4	12
77	Exposure Assessment of TSEs from the Landspreading of Meat and Bone Meal. Risk Analysis, 2007, 27, 1179-1202.	1.5	11
78	The role of quantitative risk assessment in the management of foodborne biological hazards. International Journal of Risk Assessment and Management, 2008, 8, 318.	0.2	11
79	Farm to Fork Quantitative Risk Assessment of <i>Listeria monocytogenes</i> Contamination in Raw and Pasteurized Milk Cheese in Ireland. Risk Analysis, 2015, 35, 1140-1153.	1.5	11
80	Spray coating application for the development of nanocoated antimicrobial low-density polyethylene films to increase the shelf life of chicken breast fillets. Food Science and Technology International, 2018, 24, 688-698.	1.1	11
81	The Use of Porous Silica Particles as Carriers for a Smart Delivery of Antimicrobial Essential Oils in Food Applications. ACS Omega, 2021, 6, 30376-30385.	1.6	11
82	Analysis of the levels of metal(loid)s in environmental compartments in Ireland towards a screening measure for potential relative risk using open-source datasets. Journal of Environmental Management, 2021, 298, 113531.	3.8	10
83	Quantitative microbial risk assessment associated with ready-to-eat salads following the application of farmyard manure and slurry or anaerobic digestate to arable lands. Science of the Total Environment, 2021, 806, 151227.	3.9	10
84	Current knowledge on urease and nitrification inhibitors technology and their safety. Reviews on Environmental Health, 2021, 36, 477-491.	1.1	10
85	Quantitative human exposure model to assess the level of glucosinolates upon thermal processing of cruciferous vegetables. LWT - Food Science and Technology, 2015, 63, 253-261.	2.5	9
86	A semi-quantitative risk ranking of potential human exposure to engineered nanoparticles (ENPs) in Europe. Science of the Total Environment, 2021, 778, 146232.	3.9	9
87	A GIS study to rank Irish agricultural lands with background and anthropogenic concentrations of metal(loid)s in soil. Chemosphere, 2022, 286, 131928.	4.2	9
88	Nanoparticle Food Applications and Their Toxicity: Current Trends and Needs in Risk Assessment Strategies. Journal of Food Protection, 2022, 85, 355-372.	0.8	9
89	Quantifying current and future raw milk losses due to bovine mastitis on European dairy farms under climate change scenarios. Science of the Total Environment, 2022, 833, 155149.	3.9	9
90	A Modelling Approach to Estimate the Level and Molecular Weight Distribution of Î²-Glucan During the Baking of an Oat-Based Bread. Food and Bioprocess Technology, 2012, 5, 1990-2002.	2.6	8

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91	Modeling the impacts of climate change and future land use variation on microbial transport. Journal of Water and Climate Change, 2015, 6, 449-471.	1.2	8
92	Critical Analysis of Pork QMRA Focusing on Slaughterhouses: Lessons from the Past and Future Trends. Foods, 2020, 9, 1704.	1.9	8
93	Comparison of pesticide leaching potential to groundwater under EU FOCUS and site specific conditions. Science of the Total Environment, 2013, 463-464, 432-441.	3.9	7
94	Evaluation of near-infrared chemical imaging for the prediction of surface water quality parameters. International Journal of Environmental Analytical Chemistry, 2015, 95, 403-418.	1.8	7
95	Meta-analysis of the reduction of antibiotic-sensitive and antibiotic-resistant Escherichia coli as a result of low- and medium-pressure UV lamps. Water Science and Technology, 2018, 2017, 612-620.	1.2	7
96	Development of One-Step Non-Solvent Extraction and Sensitive UHPLC-MS/MS Method for Assessment of N-(n-Butyl) Thiophosphoric Triamide (NBPT) and N-(n-Butyl) Phosphoric Triamide (NBPTo) in Milk. Molecules, 2021, 26, 2890.	1.7	7
97	Quantification of uncertainty using Bayesian and bootstrap models to simulate the impact of nitrogen fertilisation on Î²â€glucan levels in barley. Journal of the Science of Food and Agriculture, 2009, 89, 1890-1896.	1.7	6
98	Sensitivity Analysis in Predictive Models for assessing the Level of Î²-Glucan in Oats and Barley Cultivars Using Meta-Models. Food and Bioprocess Technology, 2010, 3, 935-945.	2.6	6
99	Simulation model to predict the fate of ciprofloxacin in the environment after wastewater treatment. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2013, 48, 675-685.	0.9	6
100	A Small Study of Bacterial Contamination of Anaerobic Digestion Materials and Survival in Different Feed Stocks. Bioengineering, 2020, 7, 116.	1.6	6
101	Monitoring and dispersion modelling of emissions from the fluidised bed combustion of poultry litter. Environmental Monitoring and Assessment, 2003, 85, 239-255.	1.3	4
102	Potential Microbial Load Reductions Required to Meet Existing Freshwater Recreational Water Quality Standards for a Selection of Mid-century Environmental Change Scenarios. Environmental Processes, 2015, 2, 609-629.	1.7	4
103	A Bayesian inference approach to quantify average pathogen loads in farmyard manure and slurry using open-source Irish datasets. Science of the Total Environment, 2021, 786, 147474.	3.9	4
104	Feed to food risk assessment, with particular reference to mycotoxins in bovine feed. International Journal of Risk Assessment and Management, 2008, 8, 266.	0.2	3
105	Use of Meta-Analysis to Assess the Effect of Conventional Water Treatment Methods on the Prevalence ofCryptosporidiumSpp. in Drinking Water. Human and Ecological Risk Assessment (HERA), 2010, 16, 1360-1378.	1.7	3
106	Using total organic carbon for the assessment of groundwater vulnerability in karst regions at regional scales. Environmental Earth Sciences, 2014, 72, 1993-2007.	1.3	3
107	Quantitative tools for sustainable food and energy in the food chain. Food Research International, 2019, 115, 126-127.	2.9	3
108	Natural Antimicrobial Materials for Use in Food Packaging. , 2018, , 181-233.		2

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109	A farm–to–fork model to evaluate the level of polyacetylenes in processed carrots. International Journal of Food Science and Technology, 2013, 48, 1626-1639.	1.3	1
110	Assessing the impacts of climate change on waterborne microorganisms. , 2012, , .		0
111	Quantifying the effects of climate change on the fate and transport of microbial pollutants. , 2013, , .		0