

Karl Fraser

List of Publications by Year in descending order

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108
papers

2,590
citations

201674

27
h-index

223800

46
g-index

111
all docs

111
docs citations

111
times ranked

3279
citing authors

#	ARTICLE	IF	CITATIONS
1	Metabolic Profiles of <i>Lolium perenne</i> Are Differentially Affected by Nitrogen Supply, Carbohydrate Content, and Fungal Endophyte Infection. <i>Plant Physiology</i> , 2008, 146, 1440-1453.	4.8	160
2	Pastoral and species flavour in lambs raised on pasture, lucerne or maize. <i>Journal of the Science of Food and Agriculture</i> , 2003, 83, 93-104.	3.5	138
3	Expression of the R2R3-MYB Transcription Factor TaMYB14 from <i>Trifolium arvense</i> Activates Proanthocyanidin Biosynthesis in the Legumes <i>Trifolium repens</i> and <i>Medicago sativa</i> . <i>Plant Physiology</i> , 2012, 159, 1204-1220.	4.8	111
4	Competition between foliar <i>Neotyphodium lolii</i> endophytes and mycorrhizal <i>Glomus</i> spp. fungi in <i>Lolium perenne</i> depends on resource supply and host carbohydrate content. <i>Functional Ecology</i> , 2011, 25, 910-920.	3.6	102
5	Peramine and other fungal alkaloids are exuded in the guttation fluid of endophyte-infected grasses. <i>Phytochemistry</i> , 2007, 68, 355-360.	2.9	101
6	An Extracellular Siderophore Is Required to Maintain the Mutualistic Interaction of <i>Epichloa festucae</i> with <i>Lolium perenne</i> . <i>PLoS Pathogens</i> , 2013, 9, e1003332.	4.7	89
7	High-throughput direct-infusion ion trap mass spectrometry: a new method for metabolomics. <i>Rapid Communications in Mass Spectrometry</i> , 2007, 21, 421-428.	1.5	79
8	Predicting retention time in hydrophilic interaction liquid chromatography mass spectrometry and its use for peak annotation in metabolomics. <i>Metabolomics</i> , 2015, 11, 696-706.	3.0	78
9	The effects of carbohydrate structure on the composition and functionality of the human gut microbiota. <i>Trends in Food Science and Technology</i> , 2020, 97, 233-248.	15.1	75
10	Functional analysis of an indole diterpene gene cluster for lolitrem B biosynthesis in the grass endosymbiont <i>Epichloa festucae</i> . <i>FEBS Letters</i> , 2012, 586, 2563-2569.	2.8	64
11	Variation in antimicrobial action of proanthocyanidins from <i>Dorycnium rectum</i> against rumen bacteria. <i>Phytochemistry</i> , 2004, 65, 2485-2497.	2.9	60
12	Non-targeted analysis by LC-MS of major metabolite changes during the oolong tea manufacturing in New Zealand. <i>Food Chemistry</i> , 2014, 151, 394-403.	8.2	59
13	A hydrophilic interaction liquid chromatography-mass spectrometry (HILIC-MS) based metabolomics study on colour stability of ovine meat. <i>Meat Science</i> , 2016, 117, 163-172.	5.5	58
14	A novel family of cyclic oligopeptides derived from ribosomal peptide synthesis of an in planta-induced gene, <i>gigA</i> , in <i>Epichloa</i> endophytes of grasses. <i>Fungal Genetics and Biology</i> , 2015, 85, 14-24.	2.1	54
15	Biochemical Outcome of Blocking the Ergot Alkaloid Pathway of a Grass Endophyte. <i>Journal of Agricultural and Food Chemistry</i> , 2003, 51, 6429-6437.	5.2	53
16	Analysis of metabolic markers of tea origin by UHPLC and high resolution mass spectrometry. <i>Food Research International</i> , 2013, 53, 827-835.	6.2	51
17	Characterization of condensed tannins from <i>Lotus</i> species by thiolytic degradation and electrospray mass spectrometry. <i>Animal Feed Science and Technology</i> , 2004, 117, 151-163.	2.2	50
18	Non-targeted analysis of tea by hydrophilic interaction liquid chromatography and high resolution mass spectrometry. <i>Food Chemistry</i> , 2012, 134, 1616-1623.	8.2	46

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19	Variation of Proanthocyanidins in Lotus Species. <i>Journal of Chemical Ecology</i> , 2006, 32, 1797-1816.	1.8	42
20	Identification of extracellular siderophores and a related peptide from the endophytic fungus <i>Epichloa festucae</i> in culture and endophyte-infected <i>Lolium perenne</i> . <i>Phytochemistry</i> , 2012, 75, 128-139.	2.9	42
21	Changes in composition and quality characteristics of ovine meat and fat from castrates and rams aged to 2 years. <i>New Zealand Journal of Agricultural Research</i> , 2006, 49, 419-430.	1.6	40
22	Omics analysis reveals variations among commercial sources of bovine milk fat globule membrane. <i>Journal of Dairy Science</i> , 2020, 103, 3002-3016.	3.4	40
23	Skatole and indole concentration and the odour of fat from lambs that had grazed perennial ryegrass/white clover pasture or <i>Lotus corniculatus</i> . <i>Animal Feed Science and Technology</i> , 2007, 138, 254-271.	2.2	36
24	Monitoring tea fermentation/manufacturing by direct analysis in real time (DART) mass spectrometry. <i>Food Chemistry</i> , 2013, 141, 2060-2065.	8.2	33
25	Association of Plasma Lipids and Polar Metabolites with Low Bone Mineral Density in Singaporean-Chinese Menopausal Women: A Pilot Study. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 1045.	2.6	33
26	HPLC-MS/MS profiling of proanthocyanidins in teas: A comparative study. <i>Journal of Food Composition and Analysis</i> , 2012, 26, 43-51.	3.9	31
27	A comparison of phenol and indole flavour compounds in fat, and of phenols in urine of cattle fed pasture or grain. <i>New Zealand Journal of Agricultural Research</i> , 1999, 42, 289-296.	1.6	28
28	Condensed Tannins and Flavonoids from the Forage Legume Sulla (<i>Hedysarum coronarium</i>). <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 9402-9409.	5.2	28
29	The Use of Genomics and Metabolomics Methods to Quantify Fungal Endosymbionts and Alkaloids in Grasses. <i>Methods in Molecular Biology</i> , 2011, 860, 213-226.	0.9	28
30	The efficacy and plasma profiles of abamectin plus levamisole combination anthelmintics administered as oral and pour-on formulations to cattle. <i>Veterinary Parasitology</i> , 2016, 227, 85-92.	1.8	28
31	The effects of condensed tannins from <i>Dorycnium rectum</i> on skatole and indole ruminal biogenesis for grazing sheep. <i>Australian Journal of Agricultural Research</i> , 2005, 56, 1331.	1.5	27
32	E/Z-Thesinine-O-4- β -rhamnoside, pyrrolizidine conjugates produced by grasses (Poaceae). <i>Phytochemistry</i> , 2008, 69, 1927-1932.	2.9	27
33	A reverse-phase liquid chromatography/mass spectrometry method for the analysis of high-molecular-weight fructooligosaccharides. <i>Analytical Biochemistry</i> , 2009, 395, 113-115.	2.4	26
34	Gastroparesis and lipid metabolism-associated dysbiosis in Wistar-Kyoto rats. <i>American Journal of Physiology - Renal Physiology</i> , 2017, 313, G62-G72.	3.4	25
35	Infant Complementary Feeding of Prebiotics for the Microbiome and Immunity. <i>Nutrients</i> , 2019, 11, 364.	4.1	25
36	Distribution of fatty acids and phospholipids in different table cuts and co-products from New Zealand pasture-fed Wagyu-dairy cross beef cattle. <i>Meat Science</i> , 2018, 140, 26-37.	5.5	24

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37	Analysis of high-molecular-weight fructan polymers in crude plant extracts by high-resolution LC-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2955-2963.	3.7	23
38	Metabolome and microbiome profiling of a stress-sensitive rat model of gut-brain axis dysfunction. <i>Scientific Reports</i> , 2019, 9, 14026.	3.3	23
39	Isolation and Characterisation of Procyanidins from <i>Rumex obtusifolius</i> . <i>Phytochemical Analysis</i> , 2007, 18, 193-203.	2.4	22
40	Gut Microbial Metabolites and Biochemical Pathways Involved in Irritable Bowel Syndrome: Effects of Diet and Nutrition on the Microbiome. <i>Journal of Nutrition</i> , 2020, 150, 1012-1021.	2.9	22
41	Reduced efficacy of moxidectin and abamectin in young red deer (<i>Cervus elaphus</i>) after 20 years of moxidectin pour-on use on a New Zealand deer farm. <i>Veterinary Parasitology</i> , 2014, 199, 81-92.	1.8	21
42	Characterization of Proanthocyanidins from Seeds of Perennial Ryegrass (<i>Lolium perenne</i> L.) and Tall Fescue (<i>Festuca arundinacea</i>) by Liquid Chromatography–Mass Spectrometry. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 6676-6684.	5.2	21
43	Plasma Biomarkers and Identification of Resilient Metabolic Disruptions in Patients With Venous Thromboembolism Using a Metabolic Systems Approach. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2020, 40, 2527-2538.	2.4	21
44	The effect of supplementation of a white clover or perennial ryegrass diet with grape seed extract on indole and skatole metabolism and the sensory characteristics of lamb. <i>Journal of the Science of Food and Agriculture</i> , 2007, 87, 1030-1041.	3.5	20
45	Analysis of Low Molecular Weight Metabolites in Tea Using Mass Spectrometry-Based Analytical Methods. <i>Critical Reviews in Food Science and Nutrition</i> , 2014, 54, 924-937.	10.3	20
46	Lipidomics of Brain Tissues in Rats Fed Human Milk from Chinese Mothers or Commercial Infant Formula. <i>Metabolites</i> , 2019, 9, 253.	2.9	20
47	Floral Procyanidins of the Forage Legume Red Clover (<i>Trifolium pratense</i> L.). <i>Journal of Agricultural and Food Chemistry</i> , 2004, 52, 1581-1585.	5.2	19
48	Identification of Urinary Biomarkers of Colon Inflammation in IL10 ^{-/-} Mice Using Short-Column LCMS Metabolomics. <i>Journal of Biomedicine and Biotechnology</i> , 2011, 2011, 1-12.	3.0	19
49	A combination of lipidomics, MS imaging, and PET scan imaging reveals differences in cerebral activity in rat pups according to the lipid quality of infant formulas. <i>FASEB Journal</i> , 2018, 32, 4776-4790.	0.5	18
50	Metabolic changes and associated cytokinin signals in response to nitrate assimilation in roots and shoots of <i>Lolium perenne</i> . <i>Physiologia Plantarum</i> , 2016, 156, 497-511.	5.2	17
51	Condensed Tannins in White Clover (<i>Trifolium repens</i>) Foliar Tissues Expressing the Transcription Factor TaMYB14-1 Bind to Forage Protein and Reduce Ammonia and Methane Emissions in vitro. <i>Frontiers in Plant Science</i> , 2021, 12, 777354.	3.6	17
52	Computational Analyses of Spectral Trees from Electrospray Multi-Stage Mass Spectrometry to Aid Metabolite Identification. <i>Metabolites</i> , 2013, 3, 1036-1050.	2.9	16
53	Kinetics of heat-induced interactions among whey proteins and casein micelles in sheep skim milk and aggregation of the casein micelles. <i>Journal of Dairy Science</i> , 2022, 105, 3871-3882.	3.4	16
54	Untargeted Metabotyping <i>Lolium perenne</i> Reveals Population-Level Variation in Plant Flavonoids and Alkaloids. <i>Frontiers in Plant Science</i> , 2017, 8, 133.	3.6	15

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55	Tissue-Specific Sample Dilution: An Important Parameter to Optimise Prior to Untargeted LC-MS Metabolomics. <i>Metabolites</i> , 2019, 9, 124.	2.9	15
56	Expression and functional characterization of a white clover isoflavone synthase in tobacco. <i>Annals of Botany</i> , 2012, 110, 1291-1301.	2.9	14
57	Selection for anthelmintic resistant <i>Teladorsagia circumcincta</i> in pre-weaned lambs by treating their dams with long-acting moxidectin injection. <i>International Journal for Parasitology: Drugs and Drug Resistance</i> , 2015, 5, 209-214.	3.4	14
58	Digestive Responses to Fortified Cow or Goat Dairy Drinks: A Randomised Controlled Trial. <i>Nutrients</i> , 2018, 10, 1492.	4.1	14
59	A large-scale metabolomics study to harness chemical diversity and explore biochemical mechanisms in ryegrass. <i>Communications Biology</i> , 2019, 2, 87.	4.4	14
60	Glycan Utilisation and Function in the Microbiome of Weaning Infants. <i>Microorganisms</i> , 2019, 7, 190.	3.6	13
61	Concentrations of Fecal Bile Acids in Participants with Functional Gut Disorders and Healthy Controls. <i>Metabolites</i> , 2021, 11, 612.	2.9	12
62	Effects of short- and long-term glucocorticoid-induced osteoporosis on plasma metabolome and lipidome of ovariectomized sheep. <i>BMC Musculoskeletal Disorders</i> , 2020, 21, 349.	1.9	11
63	Untargeted metabolomics reveals plasma metabolites predictive of ectopic fat in pancreas and liver as assessed by magnetic resonance imaging: the TOFI_Asia study. <i>International Journal of Obesity</i> , 2021, 45, 1844-1854.	3.4	10
64	Dynamic In Vitro Gastric Digestion of Sheep Milk: Influence of Homogenization and Heat Treatment. <i>Foods</i> , 2021, 10, 1938.	4.3	10
65	Polyethylene glycol increases intestinal absorption and hepatic uptake of indole and skatole in sheep fed sulla. <i>Journal of Animal and Feed Sciences</i> , 2004, 13, 339-342.	1.1	10
66	Glucocorticoids affect bone mineral density and bone remodelling in OVX sheep: A pilot study. <i>Bone Reports</i> , 2018, 9, 173-180.	0.4	8
67	Impacts of endophyte infection of ryegrass on rhizosphere metabolome and microbial community. <i>Crop and Pasture Science</i> , 2015, 66, 1049.	1.5	7
68	Impact of a High Protein Intake on the Plasma Metabolome in Elderly Males: 10 Week Randomized Dietary Intervention. <i>Frontiers in Nutrition</i> , 2019, 6, 180.	3.7	7
69	Elevation of Condensed Tannins in the Leaves of Ta-MYB14-1 White Clover (<i>Trifolium repens</i> L.) Outcrossed with High Anthocyanin Lines. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 2927-2939.	5.2	7
70	Human milk and infant formula differentially alters the microbiota composition and functional gene relative abundance in the small and large intestines in weanling rats. <i>European Journal of Nutrition</i> , 2020, 59, 2131-2143.	3.9	7
71	Cohort Profile: The Christchurch IBS cOhort to investigate Mechanisms For gut Relief and improved Transit (COMFORT). <i>Inflammatory Intestinal Diseases</i> , 2020, 5, 132-143.	1.9	7
72	Metabolomic signatures for visceral adiposity and dysglycaemia in Asian Chinese and Caucasian European adults: the cross-sectional TOFI_Asia study. <i>Nutrition and Metabolism</i> , 2020, 17, 95.	3.0	7

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73	Mass Spectrometry-Based Metabolomic and Lipidomic Analysis of the Effect of High Fat/High Sugar Diet and Greenshell™ Mussel Feeding on Plasma of Ovariectomized Rats. <i>Metabolites</i> , 2021, 11, 754.	2.9	7
74	Digestive-resistant carbohydrates affect lipid metabolism in rats. <i>Metabolomics</i> , 2016, 12, 1.	3.0	6
75	Low pyrrolizidine alkaloid levels in perennial ryegrass is associated with the absence of a homospermidine synthase gene. <i>BMC Plant Biology</i> , 2018, 18, 56.	3.6	6
76	Serum metabolomics using ultra performance liquid chromatography coupled to mass spectrometry in lactating dairy cows following a single dose of sporidesmin. <i>Metabolomics</i> , 2018, 14, 61.	3.0	5
77	Adaptation of the infant gut microbiome during the complementary feeding transition. <i>PLoS ONE</i> , 2022, 17, e0270213.	2.5	5
78	Using non-targeted direct analysis in real time-mass spectrometry (DART-MS) to discriminate seeds based on endogenous or exogenous chemicals. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 8047-8058.	3.7	4
79	The impact of genetics and environment on the polar fraction metabolome of commercial <i>Brassica napus</i> seeds: a multi-site study. <i>Seed Science Research</i> , 2019, 29, 167-178.	1.7	4
80	A multivariate snapshot of New Zealand milk seasonality in individual cows. <i>International Dairy Journal</i> , 2021, 114, 104940.	3.0	4
81	Route of administration affects the efficacy of moxidectin against Ostertagia nematodes in farmed red deer (<i>Cervus elaphus</i>). <i>Veterinary Parasitology</i> , 2021, 298, 109525.	1.8	4
82	The <i>Brassica napus</i> (oilseed rape) seeds bioactive health effects are modulated by agronomical traits as assessed by a multi-scale omics approach in the metabolically impaired ob-mouse. <i>Food Chemistry Molecular Sciences</i> , 2021, 2, 100011.	2.1	3
83	Su1576 “Metabolomic Profiling of Subjects with Functional Gastrointestinal Disorders: A Case/Control Study in New Zealand Reveals Significant Perturbations in Plasma Lipid and Metabolite Levels. <i>Gastroenterology</i> , 2019, 156, S-569-S-570.	1.3	2
84	Dissecting the relationship between plasma and tissue metabolome in a cohort of women with obesity: Analysis of subcutaneous and visceral adipose, muscle, and liver. <i>FASEB Journal</i> , 2022, 36, .	0.5	2
85	Automated high through-put analysis of fractions generated during the isolation of natural products. <i>New Zealand Journal of Agricultural Research</i> , 2012, 55, 15-20.	1.6	1
86	Low Energy Diet-induced and Bariatric Surgery-induced Weight Loss Decreases Branched-chain and Aromatic Amino Acids in Plasma and Tissue (P21-078-19). <i>Current Developments in Nutrition</i> , 2019, 3, nzz041.P21-078-19.	0.3	1
87	The COMFORT Cohort: Identifying Biomarkers Relevant to Functional Gastrointestinal Disorders (P20-039-19). <i>Current Developments in Nutrition</i> , 2019, 3, nzz040.P20-039-19.	0.3	1
88	Untargeted metabolic profiling of dogs with a suspected toxic mitochondrial myopathy using liquid chromatography-mass spectrometry. <i>Toxicon</i> , 2019, 166, 46-55.	1.6	1
89	Postprandial One-Carbon Metabolite Responses Are Dependent on Meal Composition and Age: A Comparison Between Older and Younger Adults. <i>Current Developments in Nutrition</i> , 2020, 4, nzaa067_016.	0.3	1
90	Identifying biomarkers relevant to functional gastrointestinal disorders using a systems biology approach. <i>FASEB Journal</i> , 2018, 32, 759.7.	0.5	1

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91	“Nourish to Flourish” complementary feeding for a healthy infant gut microbiome” a non-randomised pilot feasibility study. Pilot and Feasibility Studies, 2022, 8, 103.	1.2	1
92	Effect of narrow-leaved plantain cultivar on development of two geometrid pests, <i>Scopula rubraria</i> and <i>Epyaxa rosearia</i> . New Zealand Journal of Agricultural Research, 2018, 61, 403-413.	1.6	0
93	1104 “ Integrated Multi-Omics Analysis of the Faecal Microbiome and Plasma Lipidome from a New Zealand Irritable Bowel Syndrome Case/Control Study. Gastroenterology, 2019, 156, S-235-S-236.	1.3	0
94	Su1577 “ Understanding the Role of Bile Acids in Irritable Bowel Syndrome. Gastroenterology, 2019, 156, S-570.	1.3	0
95	The Microbiome in Functional Gastrointestinal Disorders Is Characterized by Bacteria and Genes Involved in Carbohydrate and Bile Acid Metabolism (OR23-01-19). Current Developments in Nutrition, 2019, 3, nzz040.OR23-01-19.	0.3	0
96	Lipid and Metabolite Profiles in Human Plasma and Associations with the Microbiome and Functional Gastrointestinal Disorders (P20-033-19). Current Developments in Nutrition, 2019, 3, nzz040.P20-033-19.	0.3	0
97	Understanding How Metabolites Link Diet, Host, and Microbiota in a Dysfunctional Gut Model Is Important to Establishing a System-wide Understanding of Gut Function (P20-035-19). Current Developments in Nutrition, 2019, 3, nzz040.P20-035-19.	0.3	0
98	1099 “ The Microbiome in Irritable Bowel Syndrome: Insights from a Case/Control Study in New Zealand Reveals Significant Differences in Faecalibacterium, Bilophila, and Genes Involved in Carbohydrate and Amino Acid Metabolism. Gastroenterology, 2019, 156, S-234.	1.3	0
99	Effect of a Tailored Dietary Intervention with High or Standard Protein Intake on B-Vitamin and One Carbon Metabolism Status in Healthy Older Males: A 10 Week Randomised Controlled Trial. Proceedings (mdpi), 2019, 8, .	0.2	0
100	Effect of a Tailored Dietary Intervention with High or Standard Protein Intake on B-Vitamin and One Carbon Metabolism Status in Healthy Older Males: A 10 Week Randomised Controlled Trial. Proceedings (mdpi), 2019, 8, 36.	0.2	0
101	Regular Consumption of Either Red Meat or Soy Protein Does Not Raise Cardiovascular Disease Risk Factors in Men at Heightened Risk. Proceedings (mdpi), 2019, 37, .	0.2	0
102	Connecting Infant Complementary Feeding Patterns with Microbiome Development. Current Developments in Nutrition, 2020, 4, nzaa054_106.	0.3	0
103	Association of Habitual Dietary Fiber Intake and Fecal Microbiome Gene Abundance with Gastrointestinal Symptoms in an Irritable Bowel Syndrome Cohort. Current Developments in Nutrition, 2020, 4, nzaa062_038.	0.3	0
104	Infant Feeding Frequency Impacts Human Milk Composition: A Metabolomic Analysis. Current Developments in Nutrition, 2020, 4, nzaa054_058.	0.3	0
105	Mo1339 RELATIVE ABUNDANCES OF MICROBIAL GENES INVOLVED IN GALACTOSE AND PORPHYRIN METABOLISM ARE ALTERED IN DIARRHEA-PREDOMINANT FUNCTIONAL GASTROINTESTINAL DISORDERS. Gastroenterology, 2020, 158, S-856.	1.3	0
106	NexGen Sequencing Data: Bioinformatic Tools for Visualization and Analysis. , 2021, , 47-90.		0
107	A protocol combining breath testing and ex vivo fermentations to study the human gut microbiome. STAR Protocols, 2021, 2, 100227.	1.2	0
108	Exploring the link between Irritable Bowel Syndrome and the microbiome. FASEB Journal, 2018, 32, 765.4.	0.5	0