Karl Fraser

List of Publications by Citations

100 papers	2,423 citations	29 h-index	46 g-index
111 ext. papers	2,901 ext. citations	4.1 avg, IF	5.27 L-index

#	Paper	IF	Citations
100	Metabolic profiles of Lolium perenne are differentially affected by nitrogen supply, carbohydrate content, and fungal endophyte infection. *Plant Physiology*, **2008**, 146, 1440-53	6.6	132
99	Pastoral and species flavour in lambs raised on pasture, lucerne or maize. *Journal of the Science of Food and Agriculture*, **2003**, 83, 93-104	4.3	113
98	Expression of the R2R3-MYB transcription factor TaMYB14 from Trifolium arvense activates proanthocyanidin biosynthesis in the legumes Trifolium repens and Medicago sativa. *Plant Physiology*, **2012**, 159, 1204-20	6.6	93
97	Peramine and other fungal alkaloids are exuded in the guttation fluid of endophyte-infected grasses. *Phytochemistry*, **2007**, 68, 355-60	4	85
96	Competition between foliar Neotyphodium lolii endophytes and mycorrhizal Glomus spp. fungi in Lolium perenne depends on resource supply and host carbohydrate content. *Functional Ecology*, **2011**, 25, 910-920	5.6	83
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,	0.4	78
94	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,	0.4	78
93	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,	0.4	78
92	Connecting Infant Complementary Feeding Patterns with Microbiome Development. *Current Developments in Nutrition*, **2020**, 4, 1034-1034	0.4	78
91	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, 1581-1581	0.4	78
90	Infant Feeding Frequency Impacts Human Milk Composition: A Metabolomic Analysis. *Current Developments in Nutrition*, **2020**, 4, 986-986	0.4	78
89	An extracellular siderophore is required to maintain the mutualistic interaction of Epichlo festucae with Lolium perenne. *PLoS Pathogens*, **2013**, 9, e1003332	7.6	73
88	High-throughput direct-infusion ion trap mass spectrometry: a new method for metabolomics. *Rapid Communications in Mass Spectrometry*, **2007**, 21, 421-8	2.2	73
87	Predicting retention time in hydrophilic interaction liquid chromatography mass spectrometry and its use for peak annotation in metabolomics. *Metabolomics*, **2015**, 11, 696-706	4.7	60
86	Functional analysis of an indole-diterpene gene cluster for lolitrem B biosynthesis in the grass endosymbiont Epichlo festucae. *FEBS Letters*, **2012**, 586, 2563-9	3.8	57
85	Variation in antimicrobial action of proanthocyanidins from Dorycnium rectum against rumen bacteria. *Phytochemistry*, **2004**, 65, 2485-97	4	51
84	Biochemical outcome of blocking the ergot alkaloid pathway of a grass endophyte. *Journal of Agricultural and Food Chemistry*, **2003**, 51, 6429-37	5.7	49

83	Non-targeted analysis by LC-MS of major metabolite changes during the oolong tea manufacturing in New Zealand. *Food Chemistry*, **2014**, 151, 394-403	8.5	45
82	Characterization of condensed tannins from Lotus species by thiolytic degradation and electrospray mass spectrometry. *Animal Feed Science and Technology*, **2004**, 117, 151-163	3	43
81	Analysis of metabolic markers of tea origin by UHPLC and high resolution mass spectrometry. *Food Research International*, **2013**, 53, 827-835	7	40
80	A novel family of cyclic oligopeptides derived from ribosomal peptide synthesis of an in planta-induced gene, gigA, in Epichloë endophytes of grasses. *Fungal Genetics and Biology*, **2015**, 85, 14-24	3.9	40
79	A hydrophilic interaction liquid chromatography-mass spectrometry (HILIC-MS) based metabolomics study on colour stability of ovine meat. *Meat Science*, **2016**, 117, 163-72	6.4	39
78	Non-targeted analysis of tea by hydrophilic interaction liquid chromatography and high resolution mass spectrometry. *Food Chemistry*, **2012**, 134, 1616-23	8.5	38
77	Identification of extracellular siderophores and a related peptide from the endophytic fungus Epichloë festucae in culture and endophyte-infected Lolium perenne. *Phytochemistry*, **2012**, 75, 128-39	4	37
76	Variation of proanthocyanidins in Lotus species. *Journal of Chemical Ecology*, **2006**, 32, 1797-816	2.7	36
75	Changes in composition and quality characteristics of ovine meat and fat from castrates and rams aged to 2 years. *New Zealand Journal of Agricultural Research*, **2006**, 49, 419-430	1.9	35
74	Monitoring tea fermentation/manufacturing by direct analysis in real time (DART) mass spectrometry. *Food Chemistry*, **2013**, 141, 2060-5	8.5	31
73	The effects of carbohydrate structure on the composition and functionality of the human gut microbiota. *Trends in Food Science and Technology*, **2020**, 97, 233-248	15.3	29
72	HPLC–MS/MS profiling of proanthocyanidins in teas: A comparative study. *Journal of Food Composition and Analysis*, **2012**, 26, 43-51	4.1	29
71	Skatole and indole concentration and the odour of fat from lambs that had grazed perennial ryegrass/white clover pasture or Lotus corniculatus. *Animal Feed Science and Technology*, **2007**, 138, 254-271	3	28
70	The use of genomics and metabolomics methods to quantify fungal endosymbionts and alkaloids in grasses. *Methods in Molecular Biology*, **2012**, 860, 213-26	1.4	26
69	E/Z-Thesinine-O-4-alpha-rhamnoside, pyrrolizidine conjugates produced by grasses (Poaceae). *Phytochemistry*, **2008**, 69, 1927-32	4	26
68	A comparison of phenol and indole flavour compounds in fat, and of phenols in urine of cattle fed pasture or grain. *New Zealand Journal of Agricultural Research*, **1999**, 42, 289-296	1.9	25
67	The effects of condensed tannins from Dorycnium rectum on skatole and indole ruminal biogenesis for grazing sheep. *Australian Journal of Agricultural Research*, **2005**, 56, 1331		23
66	Condensed tannins and flavonoids from the forage legume sulla (Hedysarum coronarium). *Journal of Agricultural and Food Chemistry*, **2011**, 59, 9402-9	5.7	22

65	A reverse-phase liquid chromatography/mass spectrometry method for the analysis of high-molecular-weight fructooligosaccharides. *Analytical Biochemistry*, **2009**, 395, 113-5	3.1	22
64	Analysis of high-molecular-weight fructan polymers in crude plant extracts by high-resolution LC-MS. *Analytical and Bioanalytical Chemistry*, **2011**, 401, 2955-63	4.4	21
63	Omics analysis reveals variations among commercial sources of bovine milk fat globule membrane. *Journal of Dairy Science*, **2020**, 103, 3002-3016	4	21
62	Isolation and characterisation of procyanidins from Rumex obtusifolius. *Phytochemical Analysis*, **2007**, 18, 193-203	3.4	20
61	Gastroparesis and lipid metabolism-associated dysbiosis in Wistar-Kyoto rats. *American Journal of Physiology - Renal Physiology*, **2017**, 313, G62-G72	5.1	19
60	Reduced efficacy of moxidectin and abamectin in young red deer (Cervus elaphus) after 20 years of moxidectin pour-on use on a New Zealand deer farm. *Veterinary Parasitology*, **2014**, 199, 81-92	2.8	19
59	Characterization of Proanthocyanidins from Seeds of Perennial Ryegrass (Lolium perenne L.) and Tall Fescue (Festuca arundinacea) by Liquid Chromatography-Mass Spectrometry. *Journal of Agricultural and Food Chemistry*, **2016**, 64, 6676-84	5.7	18
58	Floral procyanidins of the forage legume red clover (Trifolium pratense L.). *Journal of Agricultural and Food Chemistry*, **2004**, 52, 1581-5	5.7	18
57	Infant Complementary Feeding of Prebiotics for theMicrobiome and Immunity. *Nutrients*, **2019**, 11,	6.7	18
56	Association of Plasma Lipids and Polar Metabolites with Low Bone Mineral Density in Singaporean-Chinese Menopausal Women: A Pilot Study. *International Journal of Environmental Research and Public Health*, **2018**, 15,	4.6	17
55	The efficacy and plasma profiles of abamectin plus levamisole combination anthelmintics administered as oral and pour-on formulations to cattle. *Veterinary Parasitology*, **2016**, 227, 85-92	2.8	16
54	Analysis of low molecular weight metabolites in tea using mass spectrometry-based analytical methods. *Critical Reviews in Food Science and Nutrition*, **2014**, 54, 924-37	11.5	16
53	Identification of urinary biomarkers of colon inflammation in IL10-/- mice using Short-Column LCMS metabolomics. *Journal of Biomedicine and Biotechnology*, **2011**, 2011, 974701		16
52	Gut Microbial Metabolites and Biochemical Pathways Involved in Irritable Bowel Syndrome: Effects of Diet and Nutrition on the Microbiome. *Journal of Nutrition*, **2020**, 150, 1012-1021	4.1	16
51	Distribution of fatty acids and phospholipids in different table cuts and co-products from New Zealand pasture-fed Wagyu-dairy cross beef cattle. *Meat Science*, **2018**, 140, 26-37	6.4	15
50	Computational analyses of spectral trees from electrospray multi-stage mass spectrometry to aid metabolite identification. *Metabolites*, **2013**, 3, 1036-50	5.6	15
49	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. *Journal of the Science of Food and Agriculture*, **2007**, 87, 1030-1041	4.3	14
48	Metabolic changes and associated cytokinin signals in response to nitrate assimilation in roots and shoots of Lolium perenne. *Physiologia Plantarum*, **2016**, 156, 497-511	4.6	14

47	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. *FASEB Journal*, **2018**, 32, 4776-4790	0.9	12
46	Expression and functional characterization of a white clover isoflavone synthase in tobacco. *Annals of Botany*, **2012**, 110, 1291-301	4.1	12
45	Selection for anthelmintic resistant Teladorsagia circumcincta in pre-weaned lambs by treating their dams with long-acting moxidectin injection. *International Journal for Parasitology: Drugs and Drug Resistance*, **2015**, 5, 209-14	4	11
44	Metabolome and microbiome profiling of a stress-sensitive rat model of gut-brain axis dysfunction. *Scientific Reports*, **2019**, 9, 14026	4.9	10
43	Polyethylene glycol increases intestinal absorption and hepatic uptake of indole and skatole in sheep fed sulla. *Journal of Animal and Feed Sciences*, **2004**, 13, 339-342	1.5	10
42	Glycan Utilisation and Function in the Microbiome of Weaning Infants. *Microorganisms*, **2019**, 7,	4.9	9
41	A large-scale metabolomics study to harness chemical diversity and explore biochemical mechanisms in ryegrass. *Communications Biology*, **2019**, 2, 87	6.7	8
40	Untargeted Metabotyping Reveals Population-Level Variation in Plant Flavonoids and Alkaloids. *Frontiers in Plant Science*, **2017**, 8, 133	6.2	8
39	Tissue-Specific Sample Dilution: An Important Parameter to Optimise Prior to Untargeted LC-MS Metabolomics. *Metabolites*, **2019**, 9,	5.6	7
38	Digestive-resistant carbohydrates affect lipid metabolism in rats. *Metabolomics*, **2016**, 12, 1	4.7	6
37	Elevation of Condensed Tannins in the Leaves of Ta-MYB14-1 White Clover (L.) Outcrossed with High Anthocyanin Lines. *Journal of Agricultural and Food Chemistry*, **2020**, 68, 2927-2939	5.7	6
36	Digestive Responses to Fortified Cow or Goat Dairy Drinks: A Randomised Controlled Trial. *Nutrients*, **2018**, 10,	6.7	6
35	Lipidomics of Brain Tissues in Rats Fed Human Milk from Chinese Mothers or Commercial Infant Formula. *Metabolites*, **2019**, 9,	5.6	5
34	Impacts of endophyte infection of ryegrass on rhizosphere metabolome and microbial community. *Crop and Pasture Science*, **2015**, 66, 1049	2.2	5
33	Impact of a High Protein Intake on the Plasma Metabolome in Elderly Males: 10 Week Randomized Dietary Intervention. *Frontiers in Nutrition*, **2019**, 6, 180	6.2	5
32	Human milk and infant formula differentially alters the microbiota composition and functional gene relative abundance in the small and large intestines in weanling rats. *European Journal of Nutrition*, **2020**, 59, 2131-2143	5.2	5
31	Using non-targeted direct analysis in real time-mass spectrometry (DART-MS) to discriminate seeds based on endogenous or exogenous chemicals. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 8047-58	4.4	4
30	Serum metabolomics using ultra performance liquid chromatography coupled to mass spectrometry in lactating dairy cows following a single dose of sporidesmin. *Metabolomics*, **2018**, 14, 61	4.7	4

29	Condensed Tannins in White Clover () Foliar Tissues Expressing the Transcription Factor TaMYB14-1 Bind to Forage Protein and Reduce Ammonia and Methane Emissions .. *Frontiers in Plant Science*, **2021**, 12, 777354	6.2	4
28	Plasma Biomarkers and Identification of Resilient Metabolic Disruptions in Patients With Venous Thromboembolism Using a Metabolic Systems Approach. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2020**, 40, 2527-2538	9.4	4
27	Effects of short- and long-term glucocorticoid-induced osteoporosis on plasma metabolome and lipidome of ovariectomized sheep. *BMC Musculoskeletal Disorders*, **2020**, 21, 349	2.8	3
26	Low pyrrolizidine alkaloid levels in perennial ryegrass is associated with the absence of a homospermidine synthase gene. *BMC Plant Biology*, **2018**, 18, 56	5.3	3
25	The impact of genetics and environment on the polar fraction metabolome of commercial Brassica napus seeds: a multi-site study. *Seed Science Research*, **2019**, 29, 167-178	1.3	3
24	Metabolomic signatures for visceral adiposity and dysglycaemia in Asian Chinese and Caucasian European adults: the cross-sectional TOFI_Asia study. *Nutrition and Metabolism*, **2020**, 17, 95	4.6	3
23	Glucocorticoids affect bone mineral density and bone remodelling in OVX sheep: A pilot study. *Bone Reports*, **2018**, 9, 173-180	2.6	3
22	Concentrations of Fecal Bile Acids in Participants with Functional Gut Disorders and Healthy Controls. *Metabolites*, **2021**, 11,	5.6	3
21	Cohort Profile: The Christchurch IBS cOhort to investigate Mechanisms FOr gut Relief and improved Transit (COMFORT). *Inflammatory Intestinal Diseases*, **2020**, 5, 132-143	2.5	2
20	Untargeted metabolomics reveals plasma metabolites predictive of ectopic fat in pancreas and liver as assessed by magnetic resonance imaging: the TOFI_Asia study. *International Journal of Obesity*, **2021**, 45, 1844-1854	5.5	2
19	A multivariate snapshot of New Zealand milk seasonality in individual cows. *International Dairy Journal*, **2021**, 114, 104940	3.5	2
18	Dynamic In Vitro Gastric Digestion of Sheep Milk: Influence of Homogenization and Heat Treatment. *Foods*, **2021**, 10,	4.9	2
17	Untargeted metabolic profiling of dogs with a suspected toxic mitochondrial myopathy using liquid chromatography-mass spectrometry. *Toxicon*, **2019**, 166, 46-55	2.8	1
16	Low Energy Diet-induced and Bariatric Surgery-induced Weight Loss Decreases Branched-chain and Aromatic Amino Acids in Plasma and Tissue (P21-078-19). *Current Developments in Nutrition*, **2019**, 3,	0.4	1
15	Automated high through-put analysis of fractions generated during the isolation of natural products. *New Zealand Journal of Agricultural Research*, **2012**, 55, 15-20	1.9	1
14	Identifying biomarkers relevant to functional gastrointestinal disorders using a systems biology approach. *FASEB Journal*, **2018**, 32, 759.7	0.9	1
13	Postprandial One-Carbon Metabolite Responses Are Dependent on Meal Composition and Age: A Comparison Between Older and Younger Adults. *Current Developments in Nutrition*, **2020**, 4, 1789-1789	0.4	1
12	Metabolomics of Plant Phosphorus-Starvation Response **2018**, 217-236		1

11	Route of administration affects the efficacy of moxidectin against Ostertagiinae nematodes in farmed red deer (Cervus elaphus). *Veterinary Parasitology*, **2021**, 298, 109525	2.8	1
10	The (oilseed rape) seeds bioactive health effects are modulated by agronomical traits as assessed by a multi-scale omics approach in the metabolically impaired -mouse.. *Food Chemistry Molecular Sciences*, **2021**, 2, 100011	1	0
9	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, 19	0.3	
8	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	0.3	
7	Metabolomics of plant phosphorus-starvation response **2015**, 215-236		
6	Exploring the link between Irritable Bowel Syndrome and the microbiome. *FASEB Journal*, **2018**, 32, 765.4	4.9	
5	A protocol combining breath testing and fermentations to study the human gut microbiome. *STAR Protocols*, **2021**, 2, 100227	1.4	
4	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, 21	0.3	
3	NexGen Sequencing Data: Bioinformatic Tools for Visualization and Analysis **2021**, 47-90		
2	Effect of narrow-leaved plantain cultivar on development of two geometrid pests, Scopula rubraria and Epyaxa rosearia. *New Zealand Journal of Agricultural Research*, **2018**, 61, 403-413	1.9	
1	"Nourish to Flourish": complementary feeding for a healthy infant gut microbiome-a non-randomised pilot feasibility study.. *Pilot and Feasibility Studies*, **2022**, 8, 103	1.9	