Corey D Broeckling

List of Publications by Year
in descending order

122 papers	5,630 citations	101543 36 h-index	88630 70 g-index
128 all docs	128 docs citations	128 times ranked	9070 citing authors

#	Article	IF	Citations
1	Non-targeted metabolomics of cooked cowpea (Vigna unguiculata) and pigeon pea (Cajanus cajan) from Ghana using two distinct and complementary analytical platforms. Food Chemistry Molecular Sciences, 2022, 4, 100087.	2.1	2
2	Selection for seed size has uneven effects on specialized metabolite abundance in oat (<i>Avena) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	9
3	Ecosystem metabolomics of dissolved organic matter from arctic soil pore water across seasonal transitions. , 2022, , 91-106.		0
4	Metabolomic Profiles of Multidrug-Resistant Salmonella Typhimurium from Humans, Bovine, and Porcine Hosts. Animals, 2022, 12, 1518.	2.3	3
5	Penicillium raperi, a species isolated from Colorado cropping soils, is a potential biological control agent that produces multiple metabolites and is antagonistic against postharvest phytopathogens. Mycological Progress, 2022, 21, .	1.4	2
6	Genetic analysis of potato tuber metabolite composition: Genomeâ€wide association studies applied to a nontargeted metabolome. Crop Science, 2021, 61, 591-603.	1.8	9
7	Studying Charge Migration Fragmentation of Sodiated Precursor Ions in Collision-Induced Dissociation at the Library Scale. Journal of the American Society for Mass Spectrometry, 2021, 32, 180-186.	2.8	4
8	The Detection of Vancomycin in Sweat: A Next-Generation Digital Surrogate Marker for Antibiotic Tissue Penetration: A Pilot Study. Digital Biomarkers, 2021, 5, 24-28.	4.4	5
9	Multicohort Metabolomics Analysis Discloses 9â€Decenoylcarnitine to Be Associated With Incident Atrial Fibrillation. Journal of the American Heart Association, 2021, 10, e017579.	3.7	12
10	Application of Predicted Collisional Cross Section to Metabolome Databases to Probabilistically Describe the Current and Future Ion Mobility Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2021, 32, 661-669.	2.8	23
11	Biological variation of major gutâ€derived uremic toxins in the serum of healthy adult cats. Journal of Veterinary Internal Medicine, 2021, 35, 902-911.	1.6	3
12	Fatty acids present in commercial albumin preparations differentially affect development of murine embryos before and during implantation. F&S Science, 2021, 2, 50-58.	0.9	2
13	Equine maternal aging affects oocyte lipid content, metabolic function and developmental potential. Reproduction, 2021, 161, 399-409.	2.6	15
14	Assessing Drought and Heat Stress-Induced Changes in the Cotton Leaf Metabolome and Their Relationship With Hyperspectral Reflectance. Frontiers in Plant Science, 2021, 12, 751868.	3.6	11
15	Multi-omics prediction of oat agronomic and seed nutritional traits across environments and in distantly related populations. Theoretical and Applied Genetics, 2021, 134, 4043-4054.	3.6	20
16	Metabolic compounds within the porcine uterine environment are unique to the type of conceptus present during the early stages of blastocyst elongation. Molecular Reproduction and Development, 2020, 87, 174-190.	2.0	9
17	A Multi-Cohort Metabolomics Analysis Discloses Sphingomyelin (32:1) Levels to be Inversely Related to Incident Ischemic Stroke. Journal of Stroke and Cerebrovascular Diseases, 2020, 29, 104476.	1.6	14
18	Metabolic disturbances in sugar beet (Beta vulgaris) during infection with Beet necrotic yellow vein virus. Physiological and Molecular Plant Pathology, 2020, 112, 101520.	2.5	4

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19	Non-targeted urine metabolomics and associations with prevalent and incident type 2 diabetes. Scientific Reports, 2020, 10, 16474.	3.3	11
20	A novel culture medium with reduced nutrient concentrations supports the development and viability of mouse embryos. Scientific Reports, 2020, 10, 9263.	3.3	13
21	Non-invasive Drug Monitoring of Î²-Lactam Antibiotics Using Sweat Analysisâ€"A Pilot Study. Frontiers in Medicine, 2020, 7, 476.	2.6	11
22	Quantitative Analysis of Ethyl Carbamate in Distillers Grains Co-products and Bovine Plasma by Gas Chromatographyâ€"Mass Spectrometry. Journal of Agricultural and Food Chemistry, 2020, 68, 10984-10991.	5.2	5
23	Differential Stem Proteomics and Metabolomics Profiles for Four Wheat Cultivars in Response to the Insect Pest Wheat Stem Sawfly. Journal of Proteome Research, 2020, 19, 1037-1051.	3.7	13
24	Metabolomics for Rice Grain Quality. , 2020, , 495-531.		1
25	Assessing the Chemistry and Bioavailability of Dissolved Organic Matter From Glaciers and Rock Glaciers. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1988-2004.	3.0	18
26	The metaRbolomics Toolbox in Bioconductor and beyond. Metabolites, 2019, 9, 200.	2.9	64
27	Non-Targeted Metabolomics Reveals Sorghum Rhizosphere-Associated Exudates are Influenced by the Belowground Interaction of Substrate and Sorghum Genotype. International Journal of Molecular Sciences, 2019, 20, 431.	4.1	43
28	Data Processing for GC-MS- and LC-MS-Based Untargeted Metabolomics. Methods in Molecular Biology, 2019, 1978, 287-299.	0.9	22
29	The metabolites urobilin and sphingomyelin (30:1) are associated with incident heart failure in the general population. ESC Heart Failure, 2019, 6, 764-773.	3.1	23
30	Resource heterogeneity structures aquatic bacterial communities. ISME Journal, 2019, 13, 2183-2195.	9.8	93
31	A comprehensive timeâ€course metabolite profiling of the model cyanobacterium Synechocystis sp. PCC 6803 under diurnal light:dark cycles. Plant Journal, 2019, 99, 379-388.	5.7	18
32	Metabolomic Investigation of Tenderness and Aging Response in Beef Longissimus Steaks. Meat and Muscle Biology, 2019, 3, .	1.9	14
33	High-throughput quantitative analysis of phytohormones in sorghum leaf and root tissue by ultra-performance liquid chromatography-mass spectrometry. Analytical and Bioanalytical Chemistry, 2019, 411, 4839-4848.	3.7	26
34	Comparison of Machine Learning Algorithms for Predictive Modeling of Beef Attributes Using Rapid Evaporative Ionization Mass Spectrometry (REIMS) Data. Scientific Reports, 2019, 9, 5721.	3.3	61
35	Impact of primary carbon sources on microbiome shaping and biotransformation of pharmaceuticals and personal care products. Biodegradation, 2019, 30, 127-145.	3.0	16
36	White Kidney Bean (Phaseolus Vulgaris L.) Consumption Reduces Fat Accumulation in a Polygenic Mouse Model of Obesity. Nutrients, 2019, 11, 2780.	4.1	29

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37	Brightly coloured tissues in limid bivalves chemically deter predators. Royal Society Open Science, 2019, 6, 191298.	2.4	4
38	Identification of metabolic profiles associated with human exposure to perfluoroalkyl substances. Journal of Exposure Science and Environmental Epidemiology, 2019, 29, 196-205.	3.9	55
39	Impact of Wearing and Washing/Drying of Permethrin-Treated Clothing on Their Contact Irritancy and Toxicity for NymphalIxodes scapularis(Acari: Ixodidae) Ticks. Journal of Medical Entomology, 2019, 56, 199-214.	1.8	13
40	62 Sequential nutrient restriction and provision during bovine in vitro embryo culture differentially affect blastocyst development and quality with oocytes from varied sources. Reproduction, Fertility and Development, 2019, 31, 156.	0.4	0
41	GreenCut protein <scp>CPLD</scp>49 of Chlamydomonas reinhardtii associates with thylakoid membranes and is required for cytochrome b₆f complex accumulation. Plant Journal, 2018, 94, 1023-1037.	5.7	10
42	Ion-neutral Clustering of Bile Acids in Electrospray Ionization Across UPLC Flow Regimes. Journal of the American Society for Mass Spectrometry, 2018, 29, 651-662.	2.8	4
43	Stacked Injections of Biphasic Extractions for Improved Metabolomic Coverage and Sample Throughput. Analytical Chemistry, 2018, 90, 1147-1153.	6.5	18
44	Metabolites and microbial composition of stool of women with fecal incontinence: Study design and methods. Neurourology and Urodynamics, 2018, 37, 634-641.	1.5	2
45	A carnivore embryo's perspective on essential amino acids and ammonium in culture medium: effects on the development of feline embryosâ€. Biology of Reproduction, 2018, 99, 1070-1081.	2.7	7
46	Comprehensive Tandem-Mass-Spectrometry Coverage of Complex Samples Enabled by Data-Set-Dependent Acquisition. Analytical Chemistry, 2018, 90, 8020-8027.	6.5	35
47	Unique <i>Francisella</i> Phosphatidylethanolamine Acts as a Potent Anti-Inflammatory Lipid. Journal of Innate Immunity, 2018, 10, 291-305.	3.8	21
48	GC-MS Metabolomics to Evaluate the Composition of Plant Cuticular Waxes for Four Triticum aestivum Cultivars. International Journal of Molecular Sciences, 2018, 19, 249.	4.1	37
49	Metabolomics and Ionomics of Potato Tuber Reveals an Influence of Cultivar and Market Class on Human Nutrients and Bioactive Compounds. Frontiers in Nutrition, 2018, 5, 36.	3.7	39
50	Influence of malt source on beer chemistry, flavor, and flavor stability. Food Research International, 2018, 113, 487-504.	6.2	89
51	A Comparative Study of Serum Biochemistry, Metabolome and Microbiome Parameters of Clinically Healthy, Normal Weight, Overweight, and Obese Companion Dogs. Topics in Companion Animal Medicine, 2018, 33, 126-135.	0.9	58
52	Glucose challenge metabolomics implicates medium-chain acylcarnitines in insulin resistance. Scientific Reports, 2018, 8, 8691.	3.3	47
53	Non-Targeted Metabolite Profiling of Dried Blood Spots in a Field-Based Epidemiologic Study of Household Air Pollution. ISEE Conference Abstracts, 2018, 2018, .	0.0	0
54	Employing Twoâ€stage Derivatisation and GCâ€“MS to Assay for Cathine and Related Stimulant Alkaloids across the Celastraceae. Phytochemical Analysis, 2017, 28, 257-266.	2.4	7

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55	Metabolomics of the tick-Borrelia interaction during the nymphal tick blood meal. Scientific Reports, 2017, 7, 44394.	3.3	19
56	Model of Chronic Equine Endometritis Involving a Pseudomonas aeruginosa Biofilm. Infection and Immunity, 2017, 85, .	2.2	26
57	Impact of inoculum sources on biotransformation of pharmaceuticals and personal care products. Water Research, 2017, 125, 227-236.	11.3	48
58	Pregnancy-induced changes in metabolome and proteome in ovine uterine flushingsâ€. Biology of Reproduction, 2017, 97, 273-287.	2.7	22
59	Candida krusei form mycelia along agar surfaces towards each other and other Candida species. BMC Microbiology, 2017, 17, 60.	3.3	7
60	Dietary supplementation with rice bran or navy bean alters gut bacterial metabolism in colorectal cancer survivors. Molecular Nutrition and Food Research, 2017, 61, 1500905.	3.3	80
61	The effector AvrRxo1 phosphorylates NAD in planta. PLoS Pathogens, 2017, 13, e1006442.	4.7	37
62	Chromatographic Methods to Evaluate Nutritional Quality in Oat. Methods in Molecular Biology, 2017, 1536, 115-125.	0.9	3
63	Tryptophan catabolism in acute exacerbations of chronic obstructive pulmonary disease. International Journal of COPD, 2016, Volume 11, 2435-2446.	2.3	27
64	Non-targeted Plasma Metabolome of Early and Late Lactation Gilts. Frontiers in Molecular Biosciences, 2016, 3, 77.	3.5	3
65	Non-targeted Metabolomics in Diverse Sorghum Breeding Lines Indicates Primary and Secondary Metabolite Profiles Are Associated with Plant Biomass Accumulation and Photosynthesis. Frontiers in Plant Science, 2016, 7, 953.	3.6	80
66	Production of Phloroglucinol, a Platform Chemical, in Arabidopsis using a Bacterial Gene. Scientific Reports, 2016, 6, 38483.	3.3	17
67	A novel microflow LCâ¿¿MS method for the quantitation of endocannabinoids in serum. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2016, 1033-1034, 271-277.	2.3	24
68	Enabling Efficient and Confident Annotation of LCâ^'MS Metabolomics Data through MS1 Spectrum and Time Prediction. Analytical Chemistry, 2016, 88, 9226-9234.	6.5	77
69	Non-targeted metabolomics combined with genetic analyses identifies bile acid synthesis and phospholipid metabolism as being associated with incident type 2 diabetes. Diabetologia, 2016, 59, 2114-2124.	6.3	74
70	Metabolome profiling to understand the defense response of sugar beet (Beta vulgaris) to Rhizoctonia solani AG 2-2 IIIB. Physiological and Molecular Plant Pathology, 2016, 94, 108-117.	2.5	7
71	Evaluation of non-volatile metabolites in beer stored at high temperature and utility as an accelerated method to predict flavour stability. Food Chemistry, 2016, 200, 301-307.	8.2	15
72	The metabolic fingerprint of p,pâ€²-DDE and HCB exposure in humans. Environment International, 2016, 88, 60-66.	10.0	61

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73	Large-scale non-targeted metabolomic profiling in three human population-based studies. Metabolomics, 2016, 12, 1.	3.0	29
74	Effect of Insulin Resistance on Monounsaturated Fatty Acid Levels: A Multi-cohort Non-targeted Metabolomics and Mendelian Randomization Study. PLoS Genetics, 2016, 12, e1006379.	3.5	20
75	Direct and Osmolarity-Dependent Effects of Glycine on Preimplantation Bovine Embryos. PLoS ONE, 2016, 11, e0159581.	2.5	21
76	Analysis of the metabolome of Anopheles gambiae mosquito after exposure to Mycobacterium ulcerans. Scientific Reports, 2015, 5, 9242.	3.3	13
77	Pilot Dietary Intervention with Heat-Stabilized Rice Bran Modulates Stool Microbiota and Metabolites in Healthy Adults. Nutrients, 2015, 7, 1282-1300.	4.1	75
78	Retention projection enables accurate calculation of liquid chromatographic retention times across labs and methods. Journal of Chromatography A, 2015, 1412, 43-51.	3.7	47
79	Consumption of Cooked Navy Bean Powders Modulate the Canine Fecal and Urine Metabolome. Current Metabolomics, 2015, 3, 90-101.	0.5	14
80	Associations of Body Mass Index and Obesity-Related Genetic Variants with Serum Metabolites. Current Metabolomics, 2014, 2, 27-36.	0.5	1
81	Large-scale Metabolomic Profiling Identifies Novel Biomarkers for Incident Coronary Heart Disease. PLoS Genetics, 2014, 10, e1004801.	3.5	225
82	Evaluating plant immunity using mass spectrometry-based metabolomics workflows. Frontiers in Plant Science, 2014, 5, 291.	3.6	54
83	Application of nontargeted metabolite profiling to discover novel markers of quality traits in an advanced population of malting barley. Plant Biotechnology Journal, 2014, 12, 147-160.	8.3	50
84	Roles of rhizobial symbionts in selenium hyperaccumulation in Astragalus (Fabaceae). American Journal of Botany, 2014, 101, 1895-1905.	1.7	23
85	American <scp>I</scp>ndia <scp>P</scp>ale <scp>A</scp>le matrix rich in xanthohumol is potent in suppressing proliferation and elevating apoptosis of human colon cancer cells. International Journal of Food Science and Technology, 2014, 49, 2464-2471.	2.7	9
86	RAMClust: A Novel Feature Clustering Method Enables Spectral-Matching-Based Annotation for Metabolomics Data. Analytical Chemistry, 2014, 86, 6812-6817.	6.5	219
87	â€œRetention Projectionâ€•Enables Reliable Use of Shared Gas Chromatographic Retention Data Across Laboratories, Instruments, and Methods. Analytical Chemistry, 2013, 85, 11650-11657.	6.5	19
88	Assigning precursorâ€“product ion relationships in indiscriminant MS/MS data from non-targeted metabolite profiling studies. Metabolomics, 2013, 9, 33-43.	3.0	35
89	Metabolic engineering of Arabidopsis for butanetriol production using bacterial genes. Metabolic Engineering, 2013, 20, 109-120.	7.0	28
90	Antibacterial activity and phytochemical profile of fermented Camellia sinensis (fuzhuan tea). Food Research International, 2013, 53, 945-949.	6.2	51

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91	A Genome-Wide Assessment of Variability in Human Serum Metabolism. Human Mutation, 2013, 34, 515-524.	2.5	42
92	Large Scale Non-targeted Metabolomic Profiling of Serum by Ultra Performance Liquid Chromatography-Mass Spectrometry (UPLC-MS). Journal of Visualized Experiments, 2013, , e50242.	0.3	11
93	Advances in Nutritional Metabolomics. Current Metabolomics, 2013, 1, 109-120.	0.5	26
94	Influence of Biological and Technical Covariates on Non-targeted Metabolite Profiling in a Large-scale Epidemiological Study. Current Metabolomics, 2013, 1, 220-226.	0.5	0
95	Leveraging Non-Targeted Metabolite Profiling via Statistical Genomics. PLoS ONE, 2013, 8, e57667.	2.5	17
96	Upregulation of the Phthiocerol Dimycocerosate Biosynthetic Pathway by Rifampin-Resistant,rpoBMutant Mycobacterium tuberculosis. Journal of Bacteriology, 2012, 194, 6441-6452.	2.2	80
97	Metabolomic profiling of beer reveals effect of temperature on non-volatile small molecules during short-term storage. Food Chemistry, 2012, 135, 1284-1289.	8.2	32
98	Rice Bran Fermented with Saccharomyces boulardii Generates Novel Metabolite Profiles with Bioactivity. Journal of Agricultural and Food Chemistry, 2011, 59, 1862-1870.	5.2	109
99	Serum Metabolomics Reveals Higher Levels of Polyunsaturated Fatty Acids in Lepromatous Leprosy: Potential Markers for Susceptibility and Pathogenesis. PLoS Neglected Tropical Diseases, 2011, 5, e1303.	3.0	59
100	Importance of manual validation for the identification of phosphopeptides using a linear ion trap mass spectrometer. Journal of Biomolecular Techniques, 2011, 22, 10-20.	1.5	5
101	Plant neighbor identity influences plant biochemistry and physiology related to defense. BMC Plant Biology, 2010, 10, 115.	3.6	107
102	Proteomic analysis of brush-border membrane vesicles isolated from purified proximal convoluted tubules. American Journal of Physiology - Renal Physiology, 2010, 298, F1323-F1331.	2.7	32
103	Root Secretion of Phytochemicals in Arabidopsis Is Predominantly Not Influenced by Diurnal Rhythms. Molecular Plant, 2010, 3, 491-498.	8.3	36
104	Phytotoxic polyacetylenes from roots of Russian knapweed (Acroptilon repens (L.) DC.). Phytochemistry, 2008, 69, 2572-2578.	2.9	36
105	Phytotoxic Catechin Leached by Seeds of the Tropical Weed Sesbania virgata. Journal of Chemical Ecology, 2008, 34, 681-687.	1.8	41
106	Transcriptome analysis of Arabidopsis roots treated with signaling compounds: a focus on signal transduction, metabolic regulation and secretion. New Phytologist, 2008, 179, 209-223.	7.3	112
107	A selective, sensitive, and rapid in-field assay for soil catechin, an allelochemical of Centaurea maculosa. Soil Biology and Biochemistry, 2008, 40, 1189-1196.	8.8	14
108	Root Exudates Regulate Soil Fungal Community Composition and Diversity. Applied and Environmental Microbiology, 2008, 74, 738-744.	3.1	659

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109	Altered Profile of Secondary Metabolites in the Root Exudates of Arabidopsis ATP-Binding Cassette Transporter Mutants. Plant Physiology, 2008, 146, 323-324.	4.8	158
110	Amino acid profiling in plant cell cultures: An inter-laboratory comparison of CE-MS and GC-MS. Electrophoresis, 2007, 28, 1371-1379.	2.4	66
111	A first step in understanding an invasive weed through its genes: an EST analysis of invasive Centaurea maculosa. BMC Plant Biology, 2007, 7, 25.	3.6	17
112	Heterologous expression of two Medicago truncatula putative ERF transcription factor genes, WXP1 and WXP2, in Arabidopsis led to increased leaf wax accumulation and improved drought tolerance, but differential response in freezing tolerance. Plant Molecular Biology, 2007, 64, 265-278.	3.9	162
113	MET-IDEA:Â Data Extraction Tool for Mass Spectrometry-Based Metabolomics. Analytical Chemistry, 2006, 78, 4334-4341.	6.5	249
114	Effect of transporters on the secretion of phytochemicals by the roots of Arabidopsis thaliana. Planta, 2006, 225, 301-310.	3.2	68
115	Phytotoxic Allelochemicals From Roots and Root Exudates of Leafy Spurge (Euphorbia esulaL.). Plant Signaling and Behavior, 2006, 1, 323-327.	2.4	20
116	Metabolomics Data Analysis, Visualization, and Integration. , 2005, 406, 409-436.		33
117	Overexpression of WXP1, a putative Medicago truncatula AP2 domain-containing transcription factor gene, increases cuticular wax accumulation and enhances drought tolerance in transgenic alfalfa (Medicago sativa). Plant Journal, 2005, 42, 689-707.	5.7	388
118	Comparison between a native and exotic adelgid as hosts forLaricobius rubidus(Coleoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	1.3	25
119	Metabolic profiling of Medicago truncatula cell cultures reveals the effects of biotic and abiotic elicitors on metabolism. Journal of Experimental Botany, 2005, 56, 323-336.	4.8	347
120	Volatile emissions of eastern hemlock, Tsuga canadensis, and the influence of hemlock woolly adelgid. Phytochemistry, 2003, 62, 175-180.	2.9	22
121	Antennal Morphology of Two Specialist Predators of Hemlock Woolly Adelgid, <I>Adelges tsugae</I> Annand (Homoptera: Adelgidae). Annals of the Entomological Society of America, 2003, 96, 153-160.	2.5	17
122	Some assembly required. Nature Methods, 0, , .	19.0	0