

Adrian D Hegeman

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

86
papers

3,896
citations

36
h-index

61
g-index

89
ext. papers

4,318
ext. citations

6.2
avg, IF

5.28
L-index

#	Paper	IF	Citations
86	Metabolite identification via the Madison Metabolomics Consortium Database. <i>Nature Biotechnology</i> , 2008 , 26, 162-4	44.5	546
85	The Radical SAM Superfamily. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2008 , 43, 63-88	8.7	421
84	Enzymatic Reaction Mechanisms 2007 ,		156
83	Identification of transcribed sequences in Arabidopsis thaliana by using high-resolution genome tiling arrays. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 4453-8	11.5	136
82	Free radical mechanisms in enzymology. <i>Chemical Reviews</i> , 2006 , 106, 3302-16	68.1	109
81	Structural analysis of UDP-sugar binding to UDP-galactose 4-epimerase from Escherichia coli. <i>Biochemistry</i> , 1997 , 36, 6294-304	3.2	107
80	Implications of 15N-metabolic labeling for automated peptide identification in Arabidopsis thaliana. <i>Proteomics</i> , 2007 , 7, 1279-92	4.8	101
79	Comparison of full versus partial metabolic labeling for quantitative proteomics analysis in Arabidopsis thaliana. <i>Molecular and Cellular Proteomics</i> , 2007 , 6, 860-81	7.6	89
78	Autophosphorylation and subcellular localization dynamics of a salt- and water deficit-induced calcium-dependent protein kinase from ice plant. <i>Plant Physiology</i> , 2004 , 135, 1430-46	6.6	86
77	Plant metabolomics--meeting the analytical challenges of comprehensive metabolite analysis. <i>Briefings in Functional Genomics</i> , 2010 , 9, 139-48	4.9	82
76	Toward a structural understanding of the dehydratase mechanism. <i>Structure</i> , 2002 , 10, 81-92	5.2	81
75	Expression of mal is associated with urothelial differentiation in vitro: identification by differential display reverse-transcriptase polymerase chain reaction. <i>Differentiation</i> , 1997 , 61, 177-85	3.5	80
74	A quantitative analysis of Arabidopsis plasma membrane using trypsin-catalyzed (18)O labeling. <i>Molecular and Cellular Proteomics</i> , 2006 , 5, 1382-95	7.6	79
73	A transcriptome-based characterization of habituation in plant tissue culture. <i>Plant Physiology</i> , 2006 , 140, 1255-78	6.6	79
72	Stable isotope assisted assignment of elemental compositions for metabolomics. <i>Analytical Chemistry</i> , 2007 , 79, 6912-21	7.8	78
71	Seasonal pasture myopathy/atypical myopathy in North America associated with ingestion of hypoglycin A within seeds of the box elder tree. <i>Equine Veterinary Journal</i> , 2013 , 45, 419-26	2.4	71
70	Genetic and environmental interactions determine plant defences against herbivores. <i>Journal of Ecology</i> , 2011 , 99, 313-326	6	67

69	A phyloproteomic characterization of in vitro autophosphorylation in calcium-dependent protein kinases. <i>Proteomics</i> , 2006 , 6, 3649-64	4.8	67
68	Prediction of error associated with false-positive rate determination for peptide identification in large-scale proteomics experiments using a combined reverse and forward peptide sequence database strategy. <i>Journal of Proteome Research</i> , 2007 , 6, 392-8	5.6	62
67	Cyanogenesis of wild lima bean (<i>Phaseolus lunatus</i> L.) is an efficient direct defence in nature. <i>PLoS ONE</i> , 2009 , 4, e5450	3.7	60
66	Neoglycopolymers produced by aqueous ring-opening metathesis polymerization: decreasing saccharide density increases activity. <i>Journal of Molecular Catalysis A</i> , 1997 , 116, 209-216		55
65	An isotope labeling strategy for quantifying the degree of phosphorylation at multiple sites in proteins. <i>Journal of the American Society for Mass Spectrometry</i> , 2004 , 15, 647-53	3.5	53
64	Identification of genes expressed after noise exposure in the chick basilar papilla. <i>Hearing Research</i> , 1996 , 96, 20-32	3.9	53
63	Protocol: High-throughput and quantitative assays of auxin and auxin precursors from minute tissue samples. <i>Plant Methods</i> , 2012 , 8, 31	5.8	49
62	Characterization of enzymatic processes by rapid mix-quench mass spectrometry: the case of dTDP-glucose 4,6-dehydratase. <i>Biochemistry</i> , 2000 , 39, 13633-40	3.2	49
61	Metabolomics reveals the origins of antimicrobial plant resins collected by honey bees. <i>PLoS ONE</i> , 2013 , 8, e77512	3.7	47
60	The structure of NADH in the enzyme dTDP-d-glucose dehydratase (RmlB). <i>Journal of the American Chemical Society</i> , 2003 , 125, 11872-8	16.4	47
59	Microscale analysis of amino acids using gas chromatography-mass spectrometry after methyl chloroformate derivatization. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2010 , 878, 2199-208	3.2	46
58	In vitro interactions between <i>Fusarium verticillioides</i> and <i>Ustilago maydis</i> through real-time PCR and metabolic profiling. <i>Fungal Genetics and Biology</i> , 2011 , 48, 874-85	3.9	44
57	Recent advances in stable isotope-enabled mass spectrometry-based plant metabolomics. <i>Current Opinion in Biotechnology</i> , 2017 , 43, 41-48	11.4	43
56	Hypoglycin A concentrations in seeds of <i>Acer pseudoplatanus</i> trees growing on atypical myopathy-affected and control pastures. <i>Journal of Veterinary Internal Medicine</i> , 2014 , 28, 1289-93	3.1	42
55	A study on retention "projection" as a supplementary means for compound identification by liquid chromatography-mass spectrometry capable of predicting retention with different gradients, flow rates, and instruments. <i>Journal of Chromatography A</i> , 2011 , 1218, 6732-41	4.5	42
54	Combinations of Abiotic Factors Differentially Alter Production of Plant Secondary Metabolites in Five Woody Plant Species in the Boreal-Temperate Transition Zone. <i>Frontiers in Plant Science</i> , 2018 , 9, 1257	6.2	39
53	Easy and accurate high-performance liquid chromatography retention prediction with different gradients, flow rates, and instruments by back-calculation of gradient and flow rate profiles. <i>Journal of Chromatography A</i> , 2011 , 1218, 6742-9	4.5	38
52	Retention projection enables accurate calculation of liquid chromatographic retention times across labs and methods. <i>Journal of Chromatography A</i> , 2015 , 1412, 43-51	4.5	37

51	Probing catalysis by Escherichia coli dTDP-glucose-4,6-dehydratase: identification and preliminary characterization of functional amino acid residues at the active site. <i>Biochemistry</i> , 2001 , 40, 6598-610	3.2	36
50	Measuring the turnover rates of Arabidopsis proteins using deuterium oxide: an auxin signaling case study. <i>Plant Journal</i> , 2010 , 63, 680-95	6.9	35
49	Evaluation of instrumental methods for the untargeted analysis of chemical stimuli of orange juice flavour. <i>Flavour and Fragrance Journal</i> , 2011 , 26, 429-440	2.5	32
48	An automated growth enclosure for metabolic labeling of Arabidopsis thaliana with ¹³ C-carbon dioxide - an in vivo labeling system for proteomics and metabolomics research. <i>Proteome Science</i> , 2011 , 9, 9	2.6	30
47	Discovery and validation of colonic tumor-associated proteins via metabolic labeling and stable isotopic dilution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 17235-40	11.5	29
46	Evaluating solvent extraction systems using metabolomics approaches. <i>RSC Advances</i> , 2014 , 4, 26325-26334	3.7	27
45	Dehydration is catalyzed by glutamate-136 and aspartic acid-135 active site residues in Escherichia coli dTDP-glucose 4,6-dehydratase. <i>Biochemistry</i> , 2001 , 40, 12497-504	3.2	27
44	Measuring the chemical and cytotoxic variability of commercially available kava (Piper methysticum G. Forster). <i>PLoS ONE</i> , 2014 , 9, e111572	3.7	27
43	Concerted and stepwise dehydration mechanisms observed in wild-type and mutated Escherichia coli dTDP-glucose 4,6-dehydratase. <i>Biochemistry</i> , 2002 , 41, 2797-804	3.2	26
42	Chemical and stereochemical actions of UDP-galactose 4-epimerase. <i>Accounts of Chemical Research</i> , 2013 , 46, 1417-26	24.3	25
41	A facile means for the identification of indolic compounds from plant tissues. <i>Plant Journal</i> , 2014 , 79, 1065-75	6.9	23
40	PELPIII: the class III pistil-specific extensin-like Nicotiana tabacum proteins are essential for interspecific incompatibility. <i>Plant Journal</i> , 2013 , 74, 805-14	6.9	23
39	Van Krevelen diagram visualization of high resolution-mass spectrometry metabolomics data with OpenVanKrevelen. <i>Metabolomics</i> , 2018 , 14, 48	4.7	21
38	Proteome Scale-Protein Turnover Analysis Using High Resolution Mass Spectrometric Data from Stable-Isotope Labeled Plants. <i>Journal of Proteome Research</i> , 2016 , 15, 851-67	5.6	21
37	An extremely mild 3-aza-claisen reaction. 2. New conditions and the rearrangement of Eheteroatom substituted amides. <i>Tetrahedron Letters</i> , 1993 , 34, 1453-1456	2	21
36	Candidate serum biomarkers for early intestinal cancer using ¹⁵ N metabolic labeling and quantitative proteomics in the ApcMin/+ mouse. <i>Journal of Proteome Research</i> , 2013 , 12, 4152-66	5.6	19
35	Analyzing plant defenses in nature. <i>Plant Signaling and Behavior</i> , 2009 , 4, 743-5	2.5	17
34	NEW BIOINFORMATICS RESOURCES FOR METABOLOMICS 2006 ,		17

33	3-Acyl dihydroflavonols from poplar resins collected by honey bees are active against the bee pathogens <i>Paenibacillus</i> larvae and <i>Ascosphaera apis</i> . <i>Phytochemistry</i> , 2017 , 138, 83-92	4	16
32	Plant metabolomics for plant chemical responses to belowground community change by climate change 2014 , 57, 137-149		16
31	Easy and accurate calculation of programmed temperature gas chromatographic retention times by back-calculation of temperature and hold-up time profiles. <i>Journal of Chromatography A</i> , 2012 , 1263, 179-88	4.5	15
30	Crystal structure of At2g03760, a putative steroid sulfotransferase from <i>Arabidopsis thaliana</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2004 , 57, 854-7	4.2	14
29	Quantitative evaluation of IAA conjugate pools in <i>Arabidopsis thaliana</i> . <i>Planta</i> , 2015 , 241, 539-48	4.7	10
28	Enzymes as Parts in Need of Replacement - and How to Extend Their Working Life. <i>Trends in Plant Science</i> , 2020 , 25, 661-669	13.1	10
27	Measuring relative utilization of aerobic glycolysis in breast cancer cells by positional isotopic discrimination. <i>FEBS Letters</i> , 2016 , 590, 3179-87	3.8	10
26	The transmitting tissue of <i>Nicotiana tabacum</i> is not essential to pollen tube growth, and its ablation can reverse prezygotic interspecific barriers. <i>Plant Reproduction</i> , 2013 , 26, 339-50	3.9	10
25	An improved method for fast and selective separation of carotenoids by LC-MS. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2017 , 1067, 34-37	3.2	8
24	Metabolic Patterns in Revealed by N Stable Isotope Labeling of Amino Acids in Photoautotrophic, Heterotrophic, and Mixotrophic Growth Conditions. <i>Frontiers in Chemistry</i> , 2018 , 6, 191	5	8
23	Sequence of the cDNA for the heart/muscle isoform of mouse cytochrome c oxidase subunit VIII. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 1995 , 1261, 311-4		7
22	Genetic analysis of stilbenoid profiles in grapevine stems reveals a major mQTL hotspot on chromosome 18 associated with disease-resistance motifs. <i>Horticulture Research</i> , 2019 , 6, 121	7.7	7
21	Direct detection of surface localized specialized metabolites from <i>Glycyrrhiza lepidota</i> (American licorice) by leaf spray mass spectrometry. <i>Planta</i> , 2018 , 247, 267-275	4.7	6
20	Impact of esterified bacteriochlorophylls on the biogenesis of chlorosomes in <i>Chloroflexus aurantiacus</i> . <i>Photosynthesis Research</i> , 2014 , 122, 69-86	3.7	6
19	Regioselective solvent-phase deuteration of polyphenolic compounds informs their identification by mass spectrometry. <i>Analytical Biochemistry</i> , 2014 , 452, 76-85	3.1	5
18	Crystal structure of the protein from gene At3g17210 of <i>Arabidopsis thaliana</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2004 , 57, 218-20	4.2	5
17	Metabolic signatures of <i>Arabidopsis thaliana</i> abiotic stress responses elucidate patterns in stress priming, acclimation, and recovery. <i>Stress Biology</i> , 1		5
16	Differential Accumulation and Degradation Of Anthocyanins In Red Norland Periderm is Dependent On Soil Type And Tuber Storage Duration. <i>American Journal of Potato Research</i> , 2014 , 91, 696-705	2.1	4

15	Development of a simple, fast, and accurate method for the direct quantification of selective estrogen receptor modulators using stable isotope dilution mass spectrometry. <i>Journal of Agricultural and Food Chemistry</i> , 2013 , 61, 7028-37	5.7	4
14	Improve your Galaxy text life: The Query Tabular Tool. <i>F1000Research</i> , 2018 , 7, 1604	3.6	3
13	Inhibition of <i>Ophiognomonia clavignenti-juglandacearum</i> by <i>Juglans</i> Species Bark Extracts. <i>Plant Disease</i> , 2015 , 99, 401-408	1.5	3
12	Qualitative and quantitative screening of amino acids in plant tissues. <i>Methods in Molecular Biology</i> , 2012 , 918, 165-78	1.4	3
11	Extraction, purification, methylation and GC-MS analysis of short-chain carboxylic acids for metabolic flux analysis. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2016 , 1028, 165-174	3.2	3
10	Seasonal changes in metabolic profiles of galls and leaves of <i>Rhus chinensis</i> using gas chromatography mass spectrometry and liquid chromatography quadrupole time-of-flight mass spectrometry 2014 , 57, 127-135		2
9	Novel genes expressed in the chick otocyst during development: identification using differential display of RNA. <i>International Journal of Developmental Neuroscience</i> , 1997 , 15, 585-94	2.7	2
8	Chapter 20 Metabolic Labeling Approaches for the Relative Quantification of Proteins. <i>Comprehensive Analytical Chemistry</i> , 2008 , 479-530	1.9	2
7	Role of Nucleic Acid and Protein Manipulation Technologies in High-throughput Structural Biology Efforts 2003 ,		2
6	Targeted deuteration of polyphenolics for their qualitative and quantitative metabolomic analysis in plant-derived extracts. <i>Methods in Molecular Biology</i> , 2014 , 1083, 17-29	1.4	2
5	Leaf Spray Mass Spectrometry: A Rapid Ambient Ionization Technique to Directly Assess Metabolites from Plant Tissues. <i>Journal of Visualized Experiments</i> , 2018 ,	1.6	2
4	High Enrichment [¹³ C]-Labeling of Plants Grown Hydroponically from Seed to Seed in a Controlled C-Carbon Dioxide Atmosphere Enclosure. <i>Current Protocols in Plant Biology</i> , 2018 , 3, e20069	2.8	2
3	Cultivation of native plants for seed and biomass yield. <i>Agronomy Journal</i> , 2020 , 112, 1815-1827	2.2	1
2	Novel NMR and MS Approaches to Metabolomics. <i>Methods in Pharmacology and Toxicology</i> , 2012 , 199-230	1	1
1	Convergent evolution of a blood-red nectar pigment in vertebrate-pollinated flowers.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119,	11.5	1