Adrian D Hegeman

List of Publications by Year in Descending Order

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	Convergent evolution of a blood-red nectar pigment in vertebrate-pollinated flowers.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119,	11.5	1
85	Enzymes as Parts in Need of Replacement - and How to Extend Their Working Life. *Trends in Plant Science*, **2020**, 25, 661-669	13.1	10
84	Cultivation of native plants for seed and biomass yield. *Agronomy Journal*, **2020**, 112, 1815-1827	2.2	1
83	Genetic analysis of stilbenoid profiles in grapevine stems reveals a major mQTL hotspot on chromosome 18 associated with disease-resistance motifs. *Horticulture Research*, **2019**, 6, 121	7.7	7
82	Van Krevelen diagram visualization of high resolution-mass spectrometry metabolomics data with OpenVanKrevelen. *Metabolomics*, **2018**, 14, 48	4.7	21
81	Direct detection of surface localized specialized metabolites from Glycyrrhiza lepidota (American licorice) by leaf spray mass spectrometry. *Planta*, **2018**, 247, 267-275	4.7	6
80	Metabolic Patterns in Revealed by N Stable Isotope Labeling of Amino Acids in Photoautotrophic, Heterotrophic, and Mixotrophic Growth Conditions. *Frontiers in Chemistry*, **2018**, 6, 191	5	8
79	Combinations of Abiotic Factors Differentially Alter Production of Plant Secondary Metabolites in Five Woody Plant Species in the Boreal-Temperate Transition Zone. *Frontiers in Plant Science*, **2018**, 9, 1257	6.2	39
78	Improve your Galaxy text life: The Query Tabular Tool. *F1000Research*, **2018**, 7, 1604	3.6	3
77	Leaf Spray Mass Spectrometry: A Rapid Ambient Ionization Technique to Directly Assess Metabolites from Plant Tissues. *Journal of Visualized Experiments*, **2018**,	1.6	2
76	High Enrichment [C]-Labeling of Plants Grown Hydroponically from Seed to Seed in a Controlled C-Carbon Dioxide Atmosphere Enclosure. *Current Protocols in Plant Biology*, **2018**, 3, e20069	2.8	2
75	3-Acyl dihydroflavonols from poplar resins collected by honey bees are active against the bee pathogens Paenibacillus larvae and Ascosphaera apis. *Phytochemistry*, **2017**, 138, 83-92	4	16
74	An improved method for fast and selective separation of carotenoids by LC-MS. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2017**, 1067, 34-37	3.2	8
73	Recent advances in stable isotope-enabled mass spectrometry-based plant metabolomics. *Current Opinion in Biotechnology*, **2017**, 43, 41-48	11.4	43
72	Measuring relative utilization of aerobic glycolysis in breast cancer cells by positional isotopic discrimination. *FEBS Letters*, **2016**, 590, 3179-87	3.8	10
71	Proteome Scale-Protein Turnover Analysis Using High Resolution Mass Spectrometric Data from Stable-Isotope Labeled Plants. *Journal of Proteome Research*, **2016**, 15, 851-67	5.6	21
70	Extraction, purification, methylation and GC-MS analysis of short-chain carboxylic acids for metabolic flux analysis. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2016**, 1028, 165-174	3.2	3

69	Retention projection enables accurate calculation of liquid chromatographic retention times across labs and methods. *Journal of Chromatography A*, **2015**, 1412, 43-51	4.5	37
68	Quantitative evaluation of IAA conjugate pools in Arabidopsis thaliana. *Planta*, **2015**, 241, 539-48	4.7	10
67	Inhibition of Ophiognomonia clavigignenti-juglandacearum by Juglans Species Bark Extracts. *Plant Disease*, **2015**, 99, 401-408	1.5	3
66	A facile means for the identification of indolic compounds from plant tissues. *Plant Journal*, **2014**, 79, 1065-75	6.9	23
65	Impact of esterified bacteriochlorophylls on the biogenesis of chlorosomes in Chloroflexus aurantiacus. *Photosynthesis Research*, **2014**, 122, 69-86	3.7	6
64	Seasonal changes in metabolic profiles of galls and leaves of Rhus chinensis using gas chromatography mass spectrometry and liquid chromatography quadrupole time-of-flight mass spectrometry **2014**, 57, 127-135		2
63	Plant metabolomics for plant chemical responses to belowground community change by climate change **2014**, 57, 137-149		16
62	Regioselective solvent-phase deuteration of polyphenolic compounds informs their identification by mass spectrometry. *Analytical Biochemistry*, **2014**, 452, 76-85	3.1	5
61	Evaluating solvent extraction systems using metabolomics approaches. *RSC Advances*, **2014**, 4, 26325-26334	3.7	27
60	Differential Accumulation and Degradation Of Anthocyanins In Red Norland Periderm is Dependent On Soil Type And Tuber Storage Duration. *American Journal of Potato Research*, **2014**, 91, 696-705	2.1	4
59	Hypoglycin A concentrations in seeds of Acer pseudoplatanus trees growing on atypical myopathy-affected and control pastures. *Journal of Veterinary Internal Medicine*, **2014**, 28, 1289-93	3.1	42
58	Measuring the chemical and cytotoxic variability of commercially available kava (Piper methysticum G. Forster). *PLoS ONE*, **2014**, 9, e111572	3.7	27
57	Targeted deuteration of polyphenolics for their qualitative and quantitative metabolomic analysis in plant-derived extracts. *Methods in Molecular Biology*, **2014**, 1083, 17-29	1.4	2
56	Chemical and stereochemical actions of UDP-galactose 4-epimerase. *Accounts of Chemical Research*, **2013**, 46, 1417-26	24.3	25
55	Seasonal pasture myopathy/atypical myopathy in North America associated with ingestion of hypoglycin A within seeds of the box elder tree. *Equine Veterinary Journal*, **2013**, 45, 419-26	2.4	71
54	The transmitting tissue of Nicotiana tabacum is not essential to pollen tube growth, and its ablation can reverse prezygotic interspecific barriers. *Plant Reproduction*, **2013**, 26, 339-50	3.9	10
53	Development of a simple, fast, and accurate method for the direct quantification of selective estrogen receptor modulators using stable isotope dilution mass spectrometry. *Journal of Agricultural and Food Chemistry*, **2013**, 61, 7028-37	5.7	4
52	Candidate serum biomarkers for early intestinal cancer using 15N metabolic labeling and quantitative proteomics in the ApcMin/+ mouse. *Journal of Proteome Research*, **2013**, 12, 4152-66	5.6	19

51	PELPIII: the class III pistil-specific extensin-like Nicotiana tabacum proteins are essential for interspecific incompatibility. *Plant Journal*, **2013**, 74, 805-14	6.9	23
50	Metabolomics reveals the origins of antimicrobial plant resins collected by honey bees. *PLoS ONE*, **2013**, 8, e77512	3.7	47
49	Easy and accurate calculation of programmed temperature gas chromatographic retention times by back-calculation of temperature and hold-up time profiles. *Journal of Chromatography A*, **2012**, 1263, 179-88	4.5	15
48	Qualitative and quantitative screening of amino acids in plant tissues. *Methods in Molecular Biology*, **2012**, 918, 165-78	1.4	3
47	Protocol: High-throughput and quantitative assays of auxin and auxin precursors from minute tissue samples. *Plant Methods*, **2012**, 8, 31	5.8	49
46	Novel NMR and MS Approaches to Metabolomics. *Methods in Pharmacology and Toxicology*, **2012**, 199-230	0.1	1
45	In vitro interactions between Fusarium verticillioides and Ustilago maydis through real-time PCR and metabolic profiling. *Fungal Genetics and Biology*, **2011**, 48, 874-85	3.9	44
44	Genetic and environmental interactions determine plant defences against herbivores. *Journal of Ecology*, **2011**, 99, 313-326	6	67
43	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. *Journal of Chromatography A*, **2011**, 1218, 6742-9	4.5	38
42	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. *Journal of Chromatography A*, **2011**, 1218, 6732-41	4.5	42
41	An automated growth enclosure for metabolic labeling of Arabidopsis thaliana with 13C-carbon dioxide - an in vivo labeling system for proteomics and metabolomics research. *Proteome Science*, **2011**, 9, 9	2.6	30
40	Evaluation of instrumental methods for the untargeted analysis of chemical stimuli of orange juice flavour. *Flavour and Fragrance Journal*, **2011**, 26, 429-440	2.5	32
39	Measuring the turnover rates of Arabidopsis proteins using deuterium oxide: an auxin signaling case study. *Plant Journal*, **2010**, 63, 680-95	6.9	35
38	Plant metabolomics--meeting the analytical challenges of comprehensive metabolite analysis. *Briefings in Functional Genomics*, **2010**, 9, 139-48	4.9	82
37	Microscale analysis of amino acids using gas chromatography-mass spectrometry after methyl chloroformate derivatization. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2010**, 878, 2199-208	3.2	46
36	Cyanogenesis of wild lima bean (Phaseolus lunatus L.) is an efficient direct defence in nature. *PLoS ONE*, **2009**, 4, e5450	3.7	60
35	Analyzing plant defenses in nature. *Plant Signaling and Behavior*, **2009**, 4, 743-5	2.5	17
34	Discovery and validation of colonic tumor-associated proteins via metabolic labeling and stable isotopic dilution. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 17235-40	11.5	29

33	Metabolite identification via the Madison Metabolomics Consortium Database. *Nature Biotechnology*, **2008**, 26, 162-4	44.5	546
32	The Radical SAM Superfamily. *Critical Reviews in Biochemistry and Molecular Biology*, **2008**, 43, 63-88	8.7	421
31	Chapter 20 Metabolic Labeling Approaches for the Relative Quantification of Proteins. *Comprehensive Analytical Chemistry*, **2008**, 479-530	1.9	2
30	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. *Journal of Proteome Research*, **2007**, 6, 392-8	5.6	62
29	Stable isotope assisted assignment of elemental compositions for metabolomics. *Analytical Chemistry*, **2007**, 79, 6912-21	7.8	78
28	Implications of 15N-metabolic labeling for automated peptide identification in Arabidopsis thaliana. *Proteomics*, **2007**, 7, 1279-92	4.8	101
27	Comparison of full versus partial metabolic labeling for quantitative proteomics analysis in Arabidopsis thaliana. *Molecular and Cellular Proteomics*, **2007**, 6, 860-81	7.6	89
26	Enzymatic Reaction Mechanisms **2007**,		156
25	A quantitative analysis of Arabidopsis plasma membrane using trypsin-catalyzed (18)O labeling. *Molecular and Cellular Proteomics*, **2006**, 5, 1382-95	7.6	79
24	A transcriptome-based characterization of habituation in plant tissue culture. *Plant Physiology*, **2006**, 140, 1255-78	6.6	79
23	Free radical mechanisms in enzymology. *Chemical Reviews*, **2006**, 106, 3302-16	68.1	109
22	A phyloproteomic characterization of in vitro autophosphorylation in calcium-dependent protein kinases. *Proteomics*, **2006**, 6, 3649-64	4.8	67
21	NEW BIOINFORMATICS RESOURCES FOR METABOLOMICS **2006**,		17
20	Identification of transcribed sequences in Arabidopsis thaliana by using high-resolution genome tiling arrays. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 4453-8	11.5	136
19	Autophosphorylation and subcellular localization dynamics of a salt- and water deficit-induced calcium-dependent protein kinase from ice plant. *Plant Physiology*, **2004**, 135, 1430-46	6.6	86
18	Crystal structure of the protein from gene At3g17210 of Arabidopsis thaliana. *Proteins: Structure, Function and Bioinformatics*, **2004**, 57, 218-20	4.2	5
17	Crystal structure of At2g03760, a putative steroid sulfotransferase from Arabidopsis thaliana. *Proteins: Structure, Function and Bioinformatics*, **2004**, 57, 854-7	4.2	14
16	An isotope labeling strategy for quantifying the degree of phosphorylation at multiple sites in proteins. *Journal of the American Society for Mass Spectrometry*, **2004**, 15, 647-53	3.5	53

15	The structure of NADH in the enzyme dTDP-d-glucose dehydratase (RmlB). *Journal of the American Chemical Society*, **2003**, 125, 11872-8	16.4	47
14	Role of Nucleic Acid and Protein Manipulation Technologies in High-throughput Structural Biology Efforts **2003**,		2
13	Toward a structural understanding of the dehydratase mechanism. *Structure*, **2002**, 10, 81-92	5.2	81
12	Concerted and stepwise dehydration mechanisms observed in wild-type and mutated Escherichia coli dTDP-glucose 4,6-dehydratase. *Biochemistry*, **2002**, 41, 2797-804	3.2	26
11	Probing catalysis by Escherichia coli dTDP-glucose-4,6-dehydratase: identification and preliminary characterization of functional amino acid residues at the active site. *Biochemistry*, **2001**, 40, 6598-610	3.2	36
10	Dehydration is catalyzed by glutamate-136 and aspartic acid-135 active site residues in Escherichia coli dTDP-glucose 4,6-dehydratase. *Biochemistry*, **2001**, 40, 12497-504	3.2	27
9	Characterization of enzymatic processes by rapid mix-quench mass spectrometry: the case of dTDP-glucose 4,6-dehydratase. *Biochemistry*, **2000**, 39, 13633-40	3.2	49
8	Structural analysis of UDP-sugar binding to UDP-galactose 4-epimerase from Escherichia coli. *Biochemistry*, **1997**, 36, 6294-304	3.2	107
7	Novel genes expressed in the chick otocyst during development: identification using differential display of RNA. *International Journal of Developmental Neuroscience*, **1997**, 15, 585-94	2.7	2
6	Expression of mal is associated with urothelial differentiation in vitro: identification by differential display reverse-transcriptase polymerase chain reaction. *Differentiation*, **1997**, 61, 177-85	3.5	80
5	Neoglycopolymers produced by aqueous ring-opening metathesis polymerization: decreasing saccharide density increases activity. *Journal of Molecular Catalysis A*, **1997**, 116, 209-216		55
4	Identification of genes expressed after noise exposure in the chick basilar papilla. *Hearing Research*, **1996**, 96, 20-32	3.9	53
3	Sequence of the cDNA for the heart/muscle isoform of mouse cytochrome c oxidase subunit VIII. *Biochimica Et Biophysica Acta Gene Regulatory Mechanisms*, **1995**, 1261, 311-4		7
2	An extremely mild 3-aza-claisen reaction. 2. New conditions and the rearrangement of heteroatom substituted amides. *Tetrahedron Letters*, **1993**, 34, 1453-1456	2	21
1	Metabolic signatures of Arabidopsis thaliana abiotic stress responses elucidate patterns in stress priming, acclimation, and recovery. *Stress Biology*,1		5