Donald R Mccarty

List of Publications by Year
in descending order

59 papers	6,202 citations	172457 29 h-index	138484 58 g-index
61 all docs	61 docs citations	61 times ranked	6212 citing authors

#	Article	IF	Citations
1	Emb15 encodes a plastid ribosomal assembly factor essential for embryogenesis in maize. Plant Journal, 2021, 106, 214-227.	5.7	6
2	The number of catalytic cycles in an enzymeâ€™s lifetime and why it matters to metabolic engineering. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	41
3	Structural variation affecting DNA backbone interactions underlies adaptation of B3 DNA binding domains to constraints imposed by protein architecture. Nucleic Acids Research, 2021, 49, 4989-5002.	14.5	4
4	Chromosome-level genome assembly of a regenerable maize inbred line A188. Genome Biology, 2021, 22, 175.	8.8	32
5	The Thiamin-Requiring 3 Mutation of Arabidopsis 5-Deoxyxylulose-Phosphate Synthase 1 Highlights How the Thiamin Economy Impacts the Methylerythritol 4-Phosphate Pathway. Frontiers in Plant Science, 2021, 12, 721391.	3.6	3
6	The SUMO ligase MMS21 profoundly influences maize development through its impact on genome activity and stability. PLoS Genetics, 2021, 17, e1009830.	3.5	10
7	The Moderately (D)efficient Enzyme: Catalysis-Related Damage In Vivo and Its Repair. Biochemistry, 2021, 60, 3555-3565.	2.5	5
8	A Core Metabolome Response of Maize Leaves Subjected to Long-Duration Abiotic Stresses. Metabolites, 2021, 11, 797.	2.9	17
9	Construction and applications of a B vitamin genetic resource for investigation of vitaminâ€dependent metabolism in maize. Plant Journal, 2020, 101, 442-454.	5.7	9
10	BonnMu: A Sequence-Indexed Resource of Transposon-Induced Maize Mutations for Functional Genomics Studies. Plant Physiology, 2020, 184, 620-631.	4.8	25
11	The thick aleurone1 Gene Encodes a NOT1 Subunit of the CCR4-NOT Complex and Regulates Cell Patterning in Endosperm. Plant Physiology, 2020, 184, 960-972.	4.8	13
12	Transposable elements employ distinct integration strategies with respect to transcriptional landscapes in eukaryotic genomes. Nucleic Acids Research, 2020, 48, 6685-6698.	14.5	30
13	Maize defective kernel5 is a bacterial TamB homologue required for chloroplast envelope biogenesis. Journal of Cell Biology, 2019, 218, 2638-2658.	5.2	19
14	Effects of longâ€term exposure to elevated temperature on Zea mays endosperm development during grain fill. Plant Journal, 2019, 99, 23-40.	5.7	37
15	Rethinking the PDH Bypass and GABA Shunt as Thiamin-Deficiency Workarounds. Plant Physiology, 2019, 181, 389-393.	4.8	16
16	Restorer-of-Fertility Mutations Recovered in Transposon-Active Lines of S Male-Sterile Maize. G3: Genes, Genomes, Genetics, 2018, 8, 291-302.	1.8	5
17	The UniformMu Resource: Construction, Applications, and Opportunities. Compendium of Plant Genomes, 2018, , 131-142.	0.5	8
18	The maize W22 genome provides a foundation for functional genomics and transposon biology. Nature Genetics, 2018, 50, 1282-1288.	21.4	183

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19	Autonomous and nonâ€autonomous functions of the maize Shohai1 gene, encoding a <scp>RWP</scp>â€<scp>RK</scp> putative transcription factor, in regulation of embryo and endosperm development. Plant Journal, 2018, 95, 892-908.	5.7	11
20	Structure and Origin of the White Cap Locus and Its Role in Evolution of Grain Color in Maize. Genetics, 2017, 206, 135-150.	2.9	36
21	Small kernel2 Encodes a Glutaminase in Vitamin B6 Biosynthesis Essential for Maize Seed Development. Plant Physiology, 2017, 174, 1127-1138.	4.8	21
22	Arabidopsis TH2 Encodes the Orphan Enzyme Thiamin Monophosphate Phosphatase. Plant Cell, 2016, 28, 2683-2696.	6.6	42
23	Transposon Mutagenesis and Analysis of Mutants in UniformMu Maize (Zea mays). Current Protocols in Plant Biology, 2016, 1, 451-465.	2.8	24
24	Essential role of conserved DUF177A protein in plastid 23S rRNA accumulation and plant embryogenesis. Journal of Experimental Botany, 2016, 67, 5447-5460.	4.8	12
25	Does Abiotic Stress Cause Functional B Vitamin Deficiency in Plants?. Plant Physiology, 2016, 172, 2082-2097.	4.8	65
26	Embryo defective 14 encodes a plastidâ€targeted <scp>cGTP</scp>ase essential for embryogenesis in maize. Plant Journal, 2015, 84, 785-799.	5.7	19
27	Seed filling in domesticated maize and rice depends on SWEET-mediated hexose transport. Nature Genetics, 2015, 47, 1489-1493.	21.4	360
28	Conserved Functions of the MATE Transporter BIG EMBRYO1 in Regulation of Lateral Organ Size and Initiation Rate. Plant Cell, 2015, 27, 2288-2300.	6.6	66
29	Phenotype to genotype using forward-genetic Mu-seq for identification and functional classification of maize mutants. Frontiers in Plant Science, 2014, 4, 545.	3.6	20
30	Divisions of labor in the thiamin biosynthetic pathway among organs of maize. Frontiers in Plant Science, 2014, 5, 370.	3.6	21
31	Salvage of the thiamin pyrimidine moiety by plant TenA proteins lacking an active-site cysteine. Biochemical Journal, 2014, 463, 145-155.	3.7	22
32	The MaizeDWARF1Encodes a Gibberellin 3-Oxidase and Is Dual Localized to the Nucleus and Cytosol Â. Plant Physiology, 2014, 166, 2028-2039.	4.8	112
33	Regulation of the seed to seedling developmental phase transition by the <scp>LAFL</scp> and <scp>VAL</scp> transcription factor networks. Wiley Interdisciplinary Reviews: Developmental Biology, 2014, 3, 135-145.	5.9	113
34	Distinct functions of COAR and B3 domains of maize VP1 in induction of ectopic gene expression and plant developmental phenotypes in Arabidopsis. Plant Molecular Biology, 2014, 85, 179-191.	3.9	10
35	Distinct Roles of LAFL Network Genes in Promoting the Embryonic Seedling Fate in the Absence of VAL Repression Â Â. Plant Physiology, 2013, 163, 1293-1305.	4.8	79
36	Embryo defective12 encodes the plastid initiation factor 3 and is essential for embryogenesis in maize. Plant Journal, 2013, 74, 792-804.	5.7	53

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37	Genetic and Molecular Analyses of UniformMu Transposon Insertion Lines. Methods in Molecular Biology, 2013, 1057, 157-166.	0.9	34
38	Mu-seq: Sequence-Based Mapping and Identification of Transposon Induced Mutations. PLoS ONE, 2013, 8, e77172.	2.5	53
39	Identification and Characterization of the Missing Pyrimidine Reductase in the Plant Riboflavin Biosynthesis Pathway Â Â. Plant Physiology, 2012, 161, 48-56.	4.8	20
40	Cellulose Synthase-Like D1 Is Integral to Normal Cell Division, Expansion, and Leaf Development in Maize Â Â. Plant Physiology, 2012, 158, 708-724.	4.8	60
41	POPcorn: An Online Resource Providing Access to Distributed and Diverse Maize Project Data. International Journal of Plant Genomics, 2011, 2011, 1-10.	2.2	20
42	Genetic Resources for Maize Cell Wall Biology Â Â Â. Plant Physiology, 2009, 151, 1703-1728.	4.8	152
43	Transposon Resources for Forward and Reverse Genetics in Maize. , 2009, , 561-584.		29
44	Functional symmetry of the B3 network controlling seed development. Current Opinion in Plant Biology, 2008, 11, 548-553.	7.1	165
45	The Carotenoid Cleavage Dioxygenase 1 Enzyme Has Broad Substrate Specificity, Cleaving Multiple Carotenoids at Two Different Bond Positions. Journal of Biological Chemistry, 2008, 283, 11364-11373.	3.4	237
46	The MaizeViviparous8Locus, Encoding a Putative ALTERED MERISTEM PROGRAM1-Like Peptidase, Regulates Abscisic Acid Accumulation and Coordinates Embryo and Endosperm Development Â. Plant Physiology, 2008, 146, 1193-1206.	4.8	61
47	Repression of the LEAFY COTYLEDON 1/B3 Regulatory Network in Plant Embryo Development by VP1/ABSCISIC ACID INSENSITIVE 3-LIKE B3 Genes. Plant Physiology, 2007, 143, 902-911.	4.8	226
48	Sequence-indexed mutations in maize using the UniformMu transposon-tagging population. BMC Genomics, 2007, 8, 116.	2.8	124
49	Steady-state transposon mutagenesis in inbred maize. Plant Journal, 2005, 44, 52-61.	5.7	234
50	Molecular analysis of high-copy insertion sites in maize. Nucleic Acids Research, 2004, 32, e54-e54.	14.5	82
51	Molecular characterization of the Arabidopsis 9-cis epoxycarotenoid dioxygenase gene family. Plant Journal, 2003, 35, 44-56.	5.7	715
52	Maize VP1 complements Arabidopsisabi3 and confers a novel ABA/auxin interaction in roots. Plant Journal, 2002, 28, 409-418.	5.7	145
53	Conservation and Innovation in Plant Signaling Pathways. Cell, 2000, 103, 201-209.	28.9	135
54	Characterization of the ABA-deficient tomato mutantnotabilisand its relationship with maizeVp14. Plant Journal, 1999, 17, 427-431.	5.7	266

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55	Signaling from the embryo conditions Vp1-mediated repression of alpha-amylase genes in the aleurone of developing maize seeds. Plant Journal, 1999, 19, 371-377.	5.7	47
56	Specific Oxidative Cleavage of Carotenoids by VP14 of Maize. Science, 1997, 276, 1872-1874.	12.6	839
57	The quiescent/colorless alleles of viviparous1 show that the conserved B3 domain of VP1 is not essential for ABA-regulated gene expression in the seed. Plant Journal, 1997, 12, 1231-1240.	5.7	58
58	Genetic Control and Integration of Maturation and Germination Pathways in Seed Development. Annual Review of Plant Biology, 1995, 46, 71-93.	14.3	272
59	The Viviparous-1 developmental gene of maize encodes a novel transcriptional activator. Cell, 1991, 66, 895-905.	28.9	677