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	Specific Oxidative Cleavage of Carotenoids by VP14 of Maize. Science, 1997, 276, 1872-1874.	12.6	839
2	Molecular characterization of the Arabidopsis 9-cis epoxycarotenoid dioxygenase gene family. Plant Journal, 2003, 35, 44-56.	5.7	715
3	The Viviparous-1 developmental gene of maize encodes a novel transcriptional activator. Cell, 1991, 66, 895-905.	28.9	677
4	Seed filling in domesticated maize and rice depends on SWEET-mediated hexose transport. Nature Genetics, 2015, 47, 1489-1493.	21.4	360
5	Genetic Control and Integration of Maturation and Germination Pathways in Seed Development. Annual Review of Plant Biology, 1995, 46, 71-93.	14.3	272
6	Characterization of the ABA-deficient tomato mutantnotabilisand its relationship with maizeVp14. Plant Journal, 1999, 17, 427-431.	5.7	266
7	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
8	Steady-state transposon mutagenesis in inbred maize. Plant Journal, 2005, 44, 52-61.	5.7	234
9	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
10	The maize W22 genome provides a foundation for functional genomics and transposon biology. Nature Genetics, 2018, 50, 1282-1288.	21.4	183
11	Functional symmetry of the B3 network controlling seed development. Current Opinion in Plant Biology, 2008, 11, 548-553.	7.1	165
12	Genetic Resources for Maize Cell Wall Biology Â Â Â. Plant Physiology, 2009, 151, 1703-1728.	4.8	152
13	Maize VP1 complements Arabidopsisabi3 and confers a novel ABA/auxin interaction in roots. Plant Journal, 2002, 28, 409-418.	5.7	145
14	Conservation and Innovation in Plant Signaling Pathways. Cell, 2000, 103, 201-209.	28.9	135
15	Sequence-indexed mutations in maize using the UniformMu transposon-tagging population. BMC Genomics, 2007, 8, 116.	2.8	124
16	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
17	The Maize<i>DWARF1</i>Encodes a Gibberellin 3-Oxidase and Is Dual Localized to the Nucleus and Cytosol Â. Plant Physiology, 2014, 166, 2028-2039.	4.8	112
18	Molecular analysis of high-copy insertion sites in maize. Nucleic Acids Research, 2004, 32, e54-e54.	14.5	82

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19	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
20	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
21	Does Abiotic Stress Cause Functional B Vitamin Deficiency in Plants?. Plant Physiology, 2016, 172, 2082-2097.	4.8	65
22	The Maize<i>Viviparous8</i>Locus, 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
23	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
24	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
25	<i>Embryo defective12</i> encodes the plastid initiation factor 3 and is essential for embryogenesis in maize. Plant Journal, 2013, 74, 792-804.	5.7	53
26	Mu-seq: Sequence-Based Mapping and Identification of Transposon Induced Mutations. PLoS ONE, 2013, 8, e77172.	2.5	53
27	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
28	Arabidopsis <i>TH2</i> Encodes the Orphan Enzyme Thiamin Monophosphate Phosphatase. Plant Cell, 2016, 28, 2683-2696.	6.6	42
29	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
30	Effects of longâ€term exposure to elevated temperature on <i>Zea mays</i> endosperm development during grain fill. Plant Journal, 2019, 99, 23-40.	5.7	37
31	Structure and Origin of the <i>White Cap</i> Locus and Its Role in Evolution of Grain Color in Maize. Genetics, 2017, 206, 135-150.	2.9	36
32	Genetic and Molecular Analyses of UniformMu Transposon Insertion Lines. Methods in Molecular Biology, 2013, 1057, 157-166.	0.9	34
33	Chromosome-level genome assembly of a regenerable maize inbred line A188. Genome Biology, 2021, 22, 175.	8.8	32
34	Transposable elements employ distinct integration strategies with respect to transcriptional landscapes in eukaryotic genomes. Nucleic Acids Research, 2020, 48, 6685-6698.	14.5	30
35	Transposon Resources for Forward and Reverse Genetics in Maize. , 2009, , 561-584.		29
36	<i>BonnMu</i>: A Sequence-Indexed Resource of Transposon-Induced Maize Mutations for Functional Genomics Studies. Plant Physiology, 2020, 184, 620-631.	4.8	25

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37	Transposon Mutagenesis and Analysis of Mutants in UniformMu Maize (<i>Zea mays</i>). Current Protocols in Plant Biology, 2016, 1, 451-465.	2.8	24
38	Salvage of the thiamin pyrimidine moiety by plant TenA proteins lacking an active-site cysteine. Biochemical Journal, 2014, 463, 145-155.	3.7	22
39	Divisions of labor in the thiamin biosynthetic pathway among organs of maize. Frontiers in Plant Science, 2014, 5, 370.	3.6	21
40	Small kernel2 Encodes a Glutaminase in Vitamin B6 Biosynthesis Essential for Maize Seed Development. Plant Physiology, 2017, 174, 1127-1138.	4.8	21
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	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
43	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
44	<i>Embryo defective 14</i> encodes a plastidâ€targeted <scp>cGTP</scp>ase essential for embryogenesis in maize. Plant Journal, 2015, 84, 785-799.	5.7	19
45	Maize <i>defective kernel5</i> is a bacterial TamB homologue required for chloroplast envelope biogenesis. Journal of Cell Biology, 2019, 218, 2638-2658.	5.2	19
46	A Core Metabolome Response of Maize Leaves Subjected to Long-Duration Abiotic Stresses. Metabolites, 2021, 11, 797.	2.9	17
47	Rethinking the PDH Bypass and GABA Shunt as Thiamin-Deficiency Workarounds. Plant Physiology, 2019, 181, 389-393.	4.8	16
48	The <i>thick aleurone1</i> 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
49	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
50	Autonomous and nonâ€autonomous functions of the maize <i>Shohai1</i> 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
51	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
52	The SUMO ligase MMS21 profoundly influences maize development through its impact on genome activity and stability. PLoS Genetics, 2021, 17, e1009830.	3.5	10
53	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
54	The UniformMu Resource: Construction, Applications, and Opportunities. Compendium of Plant Genomes, 2018, , 131-142.	0.5	8

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55	<i>Emb15</i> encodes a plastid ribosomal assembly factor essential for embryogenesis in maize. Plant Journal, 2021, 106, 214-227.	5.7	6
56	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
57	The Moderately (D)efficient Enzyme: Catalysis-Related Damage <i>In Vivo</i> and Its Repair. Biochemistry, 2021, 60, 3555-3565.	2.5	5
58	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
59	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