Bonnie Bartel

List of Publications by Year
in descending order

110 papers	29,316 citations	18436 62 h-index	29081 104 g-index
112 all docs	112 docs citations	112 times ranked	32304 citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	4.3	4,701
2	MicroRNAs AND THEIR REGULATORY ROLES IN PLANTS. Annual Review of Plant Biology, 2006, 57, 19-53.	8.6	2,418
3	Prediction of Plant MicroRNA Targets. Cell, 2002, 110, 513-520.	13.5	2,088
4	Auxin: Regulation, Action, and Interaction. Annals of Botany, 2005, 95, 707-735.	1.4	1,876
5	MicroRNAs in plants. Genes and Development, 2002, 16, 1616-1626.	2.7	1,797
6	A uniform system for microRNA annotation. Rna, 2003, 9, 277-279.	1.6	1,620
7	Guidelines for the use and interpretation of assays for monitoring autophagy (4th) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 502 Td	4.3	1,430
8	Criteria for Annotation of Plant MicroRNAs. Plant Cell, 2008, 20, 3186-3190.	3.1	1,158
9	MicroRNA-Directed Regulation of Arabidopsis AUXIN RESPONSE FACTOR17 Is Essential for Proper Development and Modulates Expression of Early Auxin Response Genes. Plant Cell, 2005, 17, 1360-1375.	3.1	805
10	The tails of ubiquitin precursors are ribosomal proteins whose fusion to ubiquitin facilitates ribosome biogenesis. Nature, 1989, 338, 394-401.	13.7	697
11	MicroRNA Regulation of NAC-Domain Targets Is Required for Proper Formation and Separation of Adjacent Embryonic, Vegetative, and Floral Organs. Current Biology, 2004, 14, 1035-1046.	1.8	617
12	FKF1, a Clock-Controlled Gene that Regulates the Transition to Flowering in Arabidopsis. Cell, 2000, 101, 331-340.	13.5	444
13	Plant Peroxisomes: Biogenesis and Function. Plant Cell, 2012, 24, 2279-2303.	3.1	406
14	MicroRNAs: At the Root of Plant Development?. Plant Physiology, 2003, 132, 709-717.	2.3	389
15	A Gain-of-Function Mutation in IAA28 Suppresses Lateral Root Development. Plant Cell, 2001, 13, 465-480.	3.1	374
16	Biosynthetic diversity in plant triterpene cyclization. Current Opinion in Plant Biology, 2006, 9, 305-314.	3.5	326
17	The Arabidopsis <i>pxa1</i> Mutant Is Defective in an ATP-Binding Cassette Transporter-Like Protein Required for Peroxisomal Fatty Acid Î²-Oxidation. Plant Physiology, 2001, 127, 1266-1278.	2.3	300
18	AUXIN BIOSYNTHESIS. Annual Review of Plant Biology, 1997, 48, 51-66.	14.2	286

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19	The N-end rule is mediated by the UBC2(RAD6) ubiquitin-conjugating enzyme.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 7351-7355.	3.3	264
20	Characterization of a Family of IAA-Amino Acid Conjugate Hydrolases from Arabidopsis. Journal of Biological Chemistry, 2002, 277, 20446-20452.	1.6	262
21	ILR1, an amidohydrolase that releases active indole-3-acetic acid from conjugates. Science, 1995, 268, 1745-1748.	6.0	260
22	Genetic Analysis of Indole-3-butyric Acid Responses in<i>Arabidopsis thaliana</i>Reveals Four Mutant Classes. Genetics, 2000, 156, 1323-1337.	1.2	256
23	IAR3 Encodes an Auxin Conjugate Hydrolase from Arabidopsis. Plant Cell, 1999, 11, 365-376.	3.1	236
24	Sucrose induction of Arabidopsis miR398 represses two Cu/Zn superoxide dismutases. Plant Molecular Biology, 2008, 67, 403-417.	2.0	234
25	MicroRNA regulation of gene expression in plants. Current Opinion in Plant Biology, 2004, 7, 512-520.	3.5	221
26	A Family of Auxin-Conjugate Hydrolases That Contributes to Free Indole-3-Acetic Acid Levels during Arabidopsis Germination. Plant Physiology, 2004, 135, 978-988.	2.3	220
27	Isolation of an Arabidopsis thaliana gene encoding cycloartenol synthase by functional expression in a yeast mutant lacking lanosterol synthase by the use of a chromatographic screen.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 11628-11632.	3.3	216
28	Differential regulation of an auxin-producing nitrilase gene family in Arabidopsis thaliana.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 6649-6653.	3.3	188
29	The<i>Arabidopsis</i>PLEIOTROPIC DRUG RESISTANCE8/ABCG36 ATP Binding Cassette Transporter Modulates Sensitivity to the Auxin Precursor Indole-3-Butyric Acid Â. Plant Cell, 2009, 21, 1992-2007.	3.1	185
30	<i>Arabidopsis PIS1</i> encodes the ABCG37 transporter of auxinic compounds including the auxin precursor indole-3-butyric acid. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10749-10753.	3.3	183
31	An Auxin Transport Independent Pathway Is Involved in Phosphate Stress-Induced Root Architectural Alterations in Arabidopsis. Identification of BIG as a Mediator of Auxin in Pericycle Cell Activation. Plant Physiology, 2005, 137, 681-691.	2.3	181
32	Transport and Metabolism of the Endogenous Auxin Precursor Indole-3-Butyric Acid. Molecular Plant, 2011, 4, 477-486.	3.9	179
33	Inputs to the Active Indole-3-Acetic Acid Pool: De Novo Synthesis, Conjugate Hydrolysis, and Indole-3-Butyric Acid b-Oxidation. Journal of Plant Growth Regulation, 2001, 20, 198-216.	2.8	174
34	Redundancy as a way of life - IAA metabolism. Current Opinion in Plant Biology, 1999, 2, 207-213.	3.5	172
35	Conversion of Endogenous Indole-3-Butyric Acid to Indole-3-Acetic Acid Drives Cell Expansion in Arabidopsis Seedlings Â Â Â. Plant Physiology, 2010, 153, 1577-1586.	2.3	162
36	IBR5, a Dual-Specificity Phosphatase-Like Protein Modulating Auxin and Abscisic Acid Responsiveness in Arabidopsis. Plant Cell, 2003, 15, 2979-2991.	3.1	150

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37	Ethylene directs auxin to control root cell expansion. Plant Journal, 2010, 64, 874-884.	2.8	149
38	Multiple Facets of<i>Arabidopsis</i>Seedling Development Require  Indole-3-Butyric Acidâ€"Derived Auxin. Plant Cell, 2011, 23, 984-999.	3.1	149
39	Identification and Characterization of Arabidopsis Indole-3-Butyric Acid Response Mutants Defective in Novel Peroxisomal Enzymes. Genetics, 2008, 180, 237-251.	1.2	143
40	The Arabidopsis Peroxisomal Targeting Signal Type 2 Receptor PEX7 Is Necessary for Peroxisome Function and Dependent on PEX5. Molecular Biology of the Cell, 2005, 16, 573-583.	0.9	136
41	Peroxisome Function, Biogenesis, and Dynamics in Plants. Plant Physiology, 2018, 176, 162-177.	2.3	135
42	An Arabidopsis indole-3-butyric acid-response mutant defective in PEROXIN6, an apparent ATPase implicated in peroxisomal function. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1786-1791.	3.3	124
43	Cloning and characterization of the Arabidopsis thaliana lupeol synthase gene. Phytochemistry, 1998, 49, 1905-1911.	1.4	123
44	A role for the root cap in root branching revealed by the non-auxin probe naxillin. Nature Chemical Biology, 2012, 8, 798-805.	3.9	118
45	Molecular cloning, characterization, and overexpression of ERG7, the Saccharomyces cerevisiae gene encoding lanosterol synthase.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 2211-2215.	3.3	117
46	Disrupting Autophagy Restores Peroxisome Function to an<i>Arabidopsis lon2</i>Mutant and Reveals a Role for the LON2 Protease in Peroxisomal Matrix Protein Degradation Â. Plant Cell, 2013, 25, 4085-4100.	3.1	116
47	Identification and Functional Characterization of Arabidopsis PEROXIN4 and the Interacting Protein PEROXIN22[W]. Plant Cell, 2005, 17, 3422-3435.	3.1	112
48	A gain-of-function mutation in IAA16 confers reduced responses to auxin and abscisic acid and impedes plant growth and fertility. Plant Molecular Biology, 2012, 79, 359-373.	2.0	107
49	Mutations in Arabidopsis acyl-CoA oxidase genes reveal distinct and overlapping roles in Î²-oxidation. Plant Journal, 2005, 41, 859-874.	2.8	103
50	IBR3, a novel peroxisomal acyl-CoA dehydrogenase-like protein required for indole-3-butyric acid response. Plant Molecular Biology, 2007, 64, 59-72.	2.0	102
51	An Arabidopsis Basic Helix-Loop-Helix Leucine Zipper Protein Modulates Metal Homeostasis and Auxin Conjugate Responsiveness. Genetics, 2006, 174, 1841-1857.	1.2	98
52	Cloning and Characterization of IAR1, a Gene Required for Auxin Conjugate Sensitivity in Arabidopsis. Plant Cell, 2000, 12, 2395-2408.	3.1	97
53	chy1, an Arabidopsis Mutant with Impaired Î²-Oxidation, Is Defective in a Peroxisomal Î²-Hydroxyisobutyryl-CoA Hydrolase. Journal of Biological Chemistry, 2001, 276, 31037-31046.	1.6	95
54	Peroxisome-associated matrix protein degradation in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4561-4566.	3.3	94

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55	Arabidopsis thaliana Squalene Epoxidase 1 Is Essential for Root and Seed Development. Journal of Biological Chemistry, 2007, 282, 17002-17013.	1.6	89
56	MicroRNAs directing siRNA biogenesis. Nature Structural and Molecular Biology, 2005, 12, 569-571.	3.6	85
57	Plant peroxisomes: recent discoveries in functional complexity, organelle homeostasis, and morphological dynamics. Current Opinion in Plant Biology, 2016, 34, 17-26.	3.5	83
58	Silver Ions Increase Auxin Efflux Independently of Effects on Ethylene Response. Plant Cell, 2009, 21, 3585-3590.	3.1	80
59	A Receptor for Auxin. Plant Cell, 2005, 17, 2425-2429.	3.1	79
60	Disruption of Arabidopsis CHY1 Reveals an Important Role of Metabolic Status in Plant Cold Stress Signaling. Molecular Plant, 2009, 2, 59-72.	3.9	79
61	Arabidopsis LON2 Is Necessary for Peroxisomal Function and Sustained Matrix Protein Import. Plant Physiology, 2009, 151, 1354-1365.	2.3	77
62	A library of Arabidopsis 35S-cDNA lines for identifying novel mutants. , 2001, 46, 695-703.		76
63	The IBR5 phosphatase promotes Arabidopsis auxin responses through a novel mechanism distinct from TIR1-mediated repressor degradation. BMC Plant Biology, 2008, 8, 41.	1.6	71
64	Auxin Signaling. Developmental Cell, 2001, 1, 595-604.	3.1	61
65	Interdependence of the Peroxisome-targeting Receptors in<i>Arabidopsis thaliana</i>: PEX7 Facilitates PEX5 Accumulation and Import of PTS1 Cargo into Peroxisomes. Molecular Biology of the Cell, 2010, 21, 1263-1271.	0.9	54
66	Pexophagy and peroxisomal protein turnover in plants. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 999-1005.	1.9	54
67	A new path to auxin. Nature Chemical Biology, 2008, 4, 337-339.	3.9	51
68	Genetic Dissection of Peroxisome-Associated Matrix Protein Degradation in <i>Arabidopsis thaliana</i>. Genetics, 2013, 193, 125-141.	1.2	51
69	Arabidopsis <i>iba response5</i> Suppressors Separate Responses to Various Hormones. Genetics, 2008, 180, 2019-2031.	1.2	49
70	A facile forward-genetic screen for<i>Arabidopsis</i>autophagy mutants reveals twenty-one loss-of-function mutations disrupting six<i>ATG</i>genes. Autophagy, 2019, 15, 941-959.	4.3	42
71	ILR2, a novel gene regulating IAA conjugate sensitivity and metal transport in Arabidopsis thaliana. Plant Journal, 2003, 35, 523-534.	2.8	41
72	Matrix proteins are inefficiently imported into Arabidopsis peroxisomes lacking the receptor-docking peroxin PEX14. Plant Molecular Biology, 2011, 77, 1-15.	2.0	39

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73	IAR4, a Gene Required for Auxin Conjugate Sensitivity in Arabidopsis, Encodes a Pyruvate Dehydrogenase E1Î± Homolog. Plant Physiology, 2004, 135, 989-999.	2.3	38
74	Biology in Bloom: A Primer on the <i>Arabidopsis thaliana</i> Model System. Genetics, 2018, 208, 1337-1349.	1.2	38
75	A Gain-of-Function Mutation in IAA28 Suppresses Lateral Root Development. Plant Cell, 2001, 13, 465.	3.1	32
76	Reducing <i>PEX13</i> Expression Ameliorates Physiological Defects of Lateâ€Acting Peroxin Mutants. Traffic, 2011, 12, 121-134.	1.3	31
77	Peroxisomal Ubiquitin-Protein Ligases Peroxin2 and Peroxin10 Have Distinct But Synergistic Roles in Matrix Protein Import and Peroxin5 Retrotranslocation in Arabidopsis Â Â. Plant Physiology, 2014, 166, 1329-1344.	2.3	31
78	Hypersensitivity to heavy water: A new conditional phenotype. Cell, 1988, 52, 935-941.	13.5	30
79	Mutation of E1-CONJUGATING ENZYME-RELATED1 Decreases RELATED TO UBIQUITIN Conjugation and Alters Auxin Response and Development. Plant Physiology, 2007, 144, 976-987.	2.3	30
80	The Roles of Î²-Oxidation and Cofactor Homeostasis in Peroxisome Distribution and Function in <i>Arabidopsis thaliana</i>. Genetics, 2016, 204, 1089-1115.	1.2	30
81	Mutation of the<i>Arabidopsis</i>LON2 peroxisomal protease enhances pexophagy. Autophagy, 2014, 10, 518-519.	4.3	22
82	A viable Arabidopsis pex13 missense allele confers severe peroxisomal defects and decreases PEX5 association with peroxisomes. Plant Molecular Biology, 2014, 86, 201-214.	2.0	22
83	Peroxisomes form intralumenal vesicles with roles in fatty acid catabolism and protein compartmentalization in Arabidopsis. Nature Communications, 2020, 11, 6221.	5.8	22
84	Trinorlupeol: A Major Nonsterol Triterpenoid in Arabidopsis. Organic Letters, 2008, 10, 1897-1900.	2.4	20
85	Focus on Ubiquitin in Plant Biology. Plant Physiology, 2012, 160, 1-1.	2.3	20
86	Elevated growth temperature decreases levels of the PEX5 peroxisome-targeting signal receptor and ameliorates defects of Arabidopsis mutants with an impaired PEX4 ubiquitin-conjugating enzyme. BMC Plant Biology, 2015, 15, 224.	1.6	20
87	Genetic Interactions between PEROXIN12 and Other Peroxisome-Associated Ubiquitination Components. Plant Physiology, 2016, 172, 1643-1656.	2.3	19
88	PLANT BIOLOGY: Seeing Red. Science, 2003, 299, 352-353.	6.0	18
89	The PEX1 ATPase Stabilizes PEX6 and Plays Essential Roles in Peroxisome Biology. Plant Physiology, 2017, 174, 2231-2247.	2.3	18
90	A <i>pex1</i> missense mutation improves peroxisome function in a subset of <i>Arabidopsis pex6</i> mutants without restoring PEX5 recycling. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3163-E3172.	3.3	18

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91	Disparate peroxisomeâ€related defects in Arabidopsis <i>pex6</i> and <i>pex26</i> mutants link peroxisomal retrotranslocation and oil body utilization. Plant Journal, 2017, 92, 110-128.	2.8	17
92	The Early-Acting Peroxin PEX19 Is Redundantly Encoded, Farnesylated, and Essential for Viability in Arabidopsis thaliana. PLoS ONE, 2016, 11, e0148335.	1.1	15
93	Behavior and brain neurotransmitters: Correlations in different strains of mice. Behavioral and Neural Biology, 1986, 46, 30-45.	2.3	12
94	Compensatory Mutations in Predicted Metal Transporters Modulate Auxin Conjugate Responsiveness in <i>Arabidopsis</i>. G3: Genes, Genomes, Genetics, 2013, 3, 131-141.	0.8	10
95	Protein Transport In and Out of Plant Peroxisomes. , 2014, , 325-345.		8
96	Proteaphagyâ€"Selective Autophagy of Inactive Proteasomes. Molecular Cell, 2015, 58, 970-971.	4.5	7
97	Molecular Genetics of the Ubiquitin System. , 1988, , 39-75.		7
98	PEX16 contributions to peroxisome import and metabolism revealed by viable Arabidopsis pex16 mutants. Journal of Integrative Plant Biology, 2019, 61, 853-870.	4.1	5
99	The Structure of the Arabidopsis PEX4-PEX22 Peroxin Complexâ€"Insights Into Ubiquitination at the Peroxisomal Membrane. Frontiers in Cell and Developmental Biology, 2022, 10, 838923.	1.8	5
100	A PEX 5 missense allele preferentially disrupts PTS 1 cargo import into Arabidopsis peroxisomes. Plant Direct, 2019, 3, e00128.	0.8	4
101	Cloning and Characterization of IAR1, a Gene Required for Auxin Conjugate Sensitivity in Arabidopsis. Plant Cell, 2000, 12, 2395.	3.1	3
102	Cell signaling and gene regulation. Current Opinion in Plant Biology, 2008, 11, 471-473.	3.5	3
103	Competencies: A Cure for Pre-Med Curriculum. Science, 2011, 334, 760-761.	6.0	2
104	IAR3 Encodes an Auxin Conjugate Hydrolase from Arabidopsis. Plant Cell, 1999, 11, 365.	3.1	1
105	Plant peroxisome proteostasisâ€"establishing, renovating, and dismantling the peroxisomal proteome. Essays in Biochemistry, 2022, , .	2.1	1
106	An Arabidopsis<i>pre-RNA processing8a (prp8a)</i>missense allele restores splicing of a subset of mis-spliced mRNAs. Plant Physiology, 2022, 189, 2175-2192.	2.3	1
107	Arabidopsis Mutants Resistant to the Auxin Effects of Indole-3-Acetonitrile Are Defective in the Nitrilase Encoded by the NIT1 Gene. Plant Cell, 1997, 9, 1781.	3.1	0
108	Weed Power, Translating Arabidopsis. Plant Physiology, 2004, 135, 601-601.	2.3	0

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109	Plant Physiology Celebrates Its 25,000th Article!. Plant Physiology, 2010, 154, 433-433.	2.3	0
110	The 2012 Genetics Society of America Medal. Genetics, 2012, 191, 297-298.	1.2	0