Richard D Vierstra

List of Publications by Year
in descending order

202 papers	34,328 citations	4641 85 h-index	3815 178 g-index
211 all docs	211 docs citations	211 times ranked	36210 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	Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy, 2012, 8, 445-544.	4.3	3,122
3	The HPV-16 E6 and E6-AP complex functions as a ubiquitin-protein ligase in the ubiquitination of p53. Cell, 1993, 75, 495-505.	13.5	2,185
4	THE UBIQUITIN 26S PROTEASOME PROTEOLYTIC PATHWAY. Annual Review of Plant Biology, 2004, 55, 555-590.	8.6	1,188
5	The ubiquitinâ€“26S proteasome system at the nexus of plant biology. Nature Reviews Molecular Cell Biology, 2009, 10, 385-397.	16.1	1,061
6	Phytochrome B integrates light and temperature signals in Arabidopsis. Science, 2016, 354, 897-900.	6.0	637
7	The F-box subunit of the SCF E3 complex is encoded by a diverse superfamily of genes in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11519-11524.	3.3	604
8	Autophagic Nutrient Recycling in Arabidopsis Directed by the ATG8 and ATG12 Conjugation Pathways. Plant Physiology, 2005, 138, 2097-2110.	2.3	545
9	The APG8/12-activating Enzyme APG7 Is Required for Proper Nutrient Recycling and Senescence in Arabidopsis thaliana. Journal of Biological Chemistry, 2002, 277, 33105-33114.	1.6	521
10	The ubiquitin/26S proteasome pathway, the complex last chapter in the life of many plant proteins. Trends in Plant Science, 2003, 8, 135-142.	4.3	504
11	A light-sensing knot revealed by the structure of the chromophore-binding domain of phytochrome. Nature, 2005, 438, 325-331.	13.7	495
12	Arabidopsis EIN3-binding F-box 1 and 2 form ubiquitin-protein ligases that repress ethylene action and promote growth by directing EIN3 degradation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6803-6808.	3.3	410
13	The Cullin-RING Ubiquitin-Protein Ligases. Annual Review of Plant Biology, 2011, 62, 299-334.	8.6	410
14	The Small Ubiquitin-like Modifier (SUMO) Protein Modification System in Arabidopsis. Journal of Biological Chemistry, 2003, 278, 6862-6872.	1.6	386
15	Autophagy: The Master of Bulk and Selective Recycling. Annual Review of Plant Biology, 2018, 69, 173-208.	8.6	384
16	Soluble, highly fluorescent variants of green fluorescent protein (GFP) for use in higher plants. , 1998, 36, 521-528.		356
17	Autophagic Degradation of the 26S Proteasome Is Mediated by the Dual ATG8/Ubiquitin Receptor RPN10 in Arabidopsis. Molecular Cell, 2015, 58, 1053-1066.	4.5	354
18	Bacteriophytochromes: Phytochrome-Like Photoreceptors from Nonphotosynthetic Eubacteria. Science, 1999, 286, 2517-2520.	6.0	352

#	Article	IF	Citations
19	Autophagy: a multifaceted intracellular system for bulk and selective recycling. Trends in Plant Science, 2012, 17, 526-537.	4.3	349
20	KEEP ON GOING, a RING E3 Ligase Essential for Arabidopsis Growth and Development, Is Involved in Abscisic Acid Signaling. Plant Cell, 2007, 18, 3415-3428.	3.1	347
21	Proteolysis in plants: mechanisms and functions. Plant Molecular Biology, 1996, 32, 275-302.	2.0	328
22	Bacteriophytochromes are photochromic histidine kinases using a biliverdin chromophore. Nature, 2001, 414, 776-779.	13.7	299
23	The ATG12-Conjugating Enzyme ATG10 Is Essential for Autophagic Vesicle Formation in Arabidopsis thaliana. Genetics, 2008, 178, 1339-1353.	1.2	275
24	The ATG1/ATG13 Protein Kinase Complex Is Both a Regulator and a Target of Autophagic Recycling in Arabidopsis Â Â. Plant Cell, 2011, 23, 3761-3779.	3.1	274
25	The Arabidopsis EIN3 Binding F-Box Proteins EBF1 and EBF2 Have Distinct but Overlapping Roles in Ethylene Signaling. Plant Cell, 2007, 19, 509-523.	3.1	269
26	Autophagic recycling: lessons from yeast help define the process in plants. Current Opinion in Plant Biology, 2005, 8, 165-173.	3.5	268
27	ATG8 lipidation and ATG8-mediated autophagy in Arabidopsis require ATG12 expressed from the differentially controlled ATG12A AND ATG12B loci. Plant Journal, 2010, 62, 483-493.	2.8	254
28	AUTOPHAGY-RELATED11 Plays a Critical Role in General Autophagy- and Senescence-Induced Mitophagy in Arabidopsis. Plant Cell, 2014, 26, 788-807.	3.1	245
29	Genetic Analysis of SUMOylation in Arabidopsis: Conjugation of SUMO1 and SUMO2 to Nuclear Proteins Is Essential. Plant Physiology, 2007, 145, 119-134.	2.3	244
30	Proteomic analyses identify a diverse array of nuclear processes affected by small ubiquitin-like modifier conjugation in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16512-16517.	3.3	244
31	The Pleiotropic Role of the 26S Proteasome Subunit RPN10 in Arabidopsis Growth and Development Supports a Substrate-Specific Function in Abscisic Acid Signaling. Plant Cell, 2003, 15, 965-980.	3.1	242
32	Advanced Proteomic Analyses Yield a Deep Catalog of Ubiquitylation Targets in Arabidopsis Â. Plant Cell, 2013, 25, 1523-1540.	3.1	235
33	ATG8-Binding UIM Proteins Define a New Class of Autophagy Adaptors and Receptors. Cell, 2019, 177, 766-781.e24.	13.5	235
34	High Resolution Structure of Deinococcus Bacteriophytochrome Yields New Insights into Phytochrome Architecture and Evolution. Journal of Biological Chemistry, 2007, 282, 12298-12309.	1.6	215
35	Autophagic Recycling Plays a Central Role in Maize Nitrogen Remobilization. Plant Cell, 2015, 27, 1389-1408.	3.1	211
36	The ATG Autophagic Conjugation System in Maize: ATG Transcripts and Abundance of the ATG8-Lipid Adduct Are Regulated by Development and Nutrient Availability Â Â. Plant Physiology, 2009, 149, 220-234.	2.3	203

#	Article	IF	Citations
37	Purification and initial characterization of 124 kDalton phytochrome from Avena. Biochemistry, 1983, 22, 2498-2505.	1.2	193
38	Mass Spectrometric Resolution of Reversible Protein Phosphorylation in Photosynthetic Membranes ofArabidopsis thaliana. Journal of Biological Chemistry, 2001, 276, 6959-6966.	1.6	191
39	Autophagy differentially controls plant basal immunity to biotrophic and necrotrophic pathogens. Plant Journal, 2011, 66, 818-830.	2.8	190
40	Crystal structure of the photosensing module from a red/far-red light-absorbing plant phytochrome. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10179-10184.	3.3	190
41	The HECT ubiquitin-protein ligase (UPL) family inArabidopsis: UPL3 has a specific role in trichome development. Plant Journal, 2003, 35, 729-742.	2.8	186
42	Phylogenetic analysis of the phytochrome superfamily reveals distinct microbial subfamilies of photoreceptors. Biochemical Journal, 2005, 392, 103-116.	1.7	185
43	The Expanding Universe of Ubiquitin and Ubiquitin-Like Modifiers. Plant Physiology, 2012, 160, 2-14.	2.3	184
44	Protein degradation in signaling. Current Opinion in Plant Biology, 2000, 3, 381-386.	3.5	183
45	Cytokinin Growth Responses in Arabidopsis Involve the 26S Proteasome Subunit RPN12. Plant Cell, 2002, 14, 17-32.	3.1	180
46	Mutational Analysis of Deinococcus radiodurans Bacteriophytochrome Reveals Key Amino Acids Necessary for the Photochromicity and Proton Exchange Cycle of Phytochromes. Journal of Biological Chemistry, 2008, 283, 12212-12226.	1.6	180
47	Multiubiquitin Chain Binding and Protein Degradation Are Mediated by Distinct Domains within the 26 S Proteasome Subunit Mcb1. Journal of Biological Chemistry, 1998, 273, 1970-1981.	1.6	168
48	The BTB ubiquitin ligases ETO1, EOL1 and EOL2 act collectively to regulate ethylene biosynthesis in Arabidopsis by controlling typeâ€2 ACC synthase levels. Plant Journal, 2009, 57, 332-345.	2.8	166
49	Phytochromes: An Atomic Perspective on Photoactivation and Signaling. Plant Cell, 2014, 26, 4568-4583.	3.1	161
50	Dynamic Regulation of the 26S Proteasome: From Synthesis to Degradation. Frontiers in Molecular Biosciences, 2019, 6, 40.	1.6	155
51	Purification of the Arabidopsis 26 S Proteasome. Journal of Biological Chemistry, 2004, 279, 6401-6413.	1.6	153
52	Drop-on-demand sample delivery for studying biocatalysts in action at X-ray free-electron lasers. Nature Methods, 2017, 14, 443-449.	9.0	150
53	The pair of bacteriophytochromes from Agrobacterium tumefaciens are histidine kinases with opposing photobiological properties. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2807-2812.	3.3	146
54	Mutant Analyses Define Multiple Roles for Phytochrome C in Arabidopsis Photomorphogenesis. Plant Cell, 2003, 15, 1981-1989.	3.1	145

#	Article	IF	Citations
55	Cullins 3a and 3b Assemble with Members of the Broad Complex/Tramtrack/Bric-a-Brac (BTB) Protein Family to Form Essential Ubiquitin-Protein Ligases (E3s) in Arabidopsis*. Journal of Biological Chemistry, 2005, 280, 18810-18821.	1.6	142
56	Genetic and Molecular Analysis of Phytochromes from the Filamentous Fungus Neurospora crassa. Eukaryotic Cell, 2005, 4, 2140-2152.	3.4	142
57	Tandem affinity purification and mass spectrometric analysis of ubiquitylated proteins in Arabidopsis. Plant Journal, 2009, 59, 344-358.	2.8	137
58	Delivery of Prolamins to the Protein Storage Vacuole in Maize Aleurone Cells. Plant Cell, 2011, 23, 769-784.	3.1	137
59	Autophagic Turnover of Inactive 26S Proteasomes in Yeast Is Directed by the Ubiquitin Receptor Cue5 and the Hsp42 Chaperone. Cell Reports, 2016, 16, 1717-1732.	2.9	129
60	Unified nomenclature for subunits of the Saccharomyces cerevisiae proteasome regulatory particle. Trends in Biochemical Sciences, 1998, 23, 244-245.	3.7	127
61	The Heme-Oxygenase Family Required for Phytochrome Chromophore Biosynthesis Is Necessary for Proper Photomorphogenesis in Higher Plants. Plant Physiology, 2001, 126, 656-669.	2.3	126
62	The Exoribonuclease XRN4 Is a Component of the Ethylene Response Pathway in Arabidopsis. Plant Cell, 2006, 18, 3047-3057.	3.1	126
63	Crystal Structure of Deinococcus Phytochrome in the Photoactivated State Reveals a Cascade of Structural Rearrangements during Photoconversion. Structure, 2016, 24, 448-457.	1.6	126
64	Quantitative Proteomics Reveals Factors Regulating RNA Biology as Dynamic Targets of Stress-induced SUMOylation in Arabidopsis. Molecular and Cellular Proteomics, 2013, 12, 449-463.	2.5	124
65	Maize multi-omics reveal roles for autophagic recycling in proteome remodelling and lipid turnover. Nature Plants, 2018, 4, 1056-1070.	4.7	124
66	The Ubiquitin-Specific Protease Family from Arabidopsis.AtUBP1 and 2 Are Required for the Resistance to the Amino Acid Analog Canavanine. Plant Physiology, 2000, 124, 1828-1843.	2.3	123
67	The ubiquitin-specific protease UBP14 is essential for early embryo development in Arabidopsis thaliana. Plant Journal, 2001, 27, 393-405.	2.8	120
68	SUMOylome Profiling Reveals a Diverse Array of Nuclear Targets Modified by the SUMO Ligase SIZ1 during Heat Stress. Plant Cell, 2018, 30, 1077-1099.	3.1	120
69	Affinity Purification of the Arabidopsis 26 S Proteasome Reveals a Diverse Array of Plant Proteolytic Complexes. Journal of Biological Chemistry, 2010, 285, 25554-25569.	1.6	119
70	Structural basis for the photoconversion of a phytochrome to the activated Pfr form. Nature, 2010, 463, 250-254.	13.7	118
71	Phylogenetic Comparison of F-Box (FBX) Gene Superfamily within the Plant Kingdom Reveals Divergent Evolutionary Histories Indicative of Genomic Drift. PLoS ONE, 2011, 6, e16219.	1.1	116
72	SUMOylation: re-wiring the plant nucleus during stress and development. Current Opinion in Plant Biology, 2018, 45, 143-154.	3.5	116

#	Article	IF	Citations
73	Identification of a Family of Closely Related Human Ubiquitin Conjugating Enzymes. Journal of Biological Chemistry, 1995, 270, 30408-30414.	1.6	114
74	The RAD23 Family Provides an Essential Connection between the 26S Proteasome and Ubiquitylated Proteins inArabidopsisÂ. Plant Cell, 2010, 22, 124-142.	3.1	113
75	The Endosomal Protein CHARGED MULTIVESICULAR BODY PROTEIN1 Regulates the Autophagic Turnover of Plastids in Arabidopsis. Plant Cell, 2015, 27, 391-402.	3.1	112
76	Characterization of a polyubiquitin gene from Arabidopsis thaliana. Molecular Genetics and Genomics, 1988, 213, 435-443.	2.4	111
77	Multiple Heme Oxygenase Family Members Contribute to the Biosynthesis of the Phytochrome Chromophore in Arabidopsis. Plant Physiology, 2006, 140, 856-868.	2.3	111
78	Bacteria Exploit Autophagy for Proteasome Degradation and Enhanced Virulence in Plants. Plant Cell, 2018, 30, 668-685.	3.1	106
79	Molecular Organization of the 20S Proteasome Gene Family from Arabidopsis thaliana. Genetics, 1998, 149, 677-692.	1.2	103
80	Photochemistry of 124 Kilodalton Avena Phytochrome In Vitro. Plant Physiology, 1983, 72, 264-267.	2.3	99
81	The ubiquitin-activating enzyme (E1) gene family in Arabidopsis thaliana. Plant Journal, 1997, 11, 213-226.	2.8	98
82	Functional analysis of the proteasome regulatory particle. Molecular Biology Reports, 1999, 26, 21-28.	1.0	97
83	Genetic Analyses of the Arabidopsis ATG1 Kinase Complex Reveal Both Kinase-Dependent and Independent Autophagic Routes during Fixed-Carbon Starvation. Plant Cell, 2019, 31, 2973-2995.	3.1	97
84	Large-Scale, Lineage-Specific Expansion of a Bric-a-Brac/Tramtrack/Broad Complex Ubiquitin-Ligase Gene Family in Rice. Plant Cell, 2007, 19, 2329-2348.	3.1	96
85	Crystallographic and Electron Microscopic Analyses of a Bacterial Phytochrome Reveal Local and Global Rearrangements during Photoconversion. Journal of Biological Chemistry, 2014, 289, 24573-24587.	1.6	96
86	Multiubiquitin Chain Binding Subunit MCB1 (RPN10) of the 26S Proteasome Is Essential for Developmental Progression in Physcomitrella patens. Plant Cell, 1999, 11, 1457-1471.	3.1	94
87	A Photo-Labile Thioether Linkage to Phycoviolobilin Provides the Foundation for the Blue/Green Photocycles in DXCF-Cyanobacteriochromes. Structure, 2013, 21, 88-97.	1.6	92
88	Native phytochrome: immunoblot analysis of relative molecular mass and in-vitro proteolytic degradation for several plant species. Planta, 1984, 160, 521-528.	1.6	86
89	Light-regulated overexpression of an Arabidopsis phytochrome A gene in rice alters plant architecture and increases grain yield. Planta, 2006, 223, 627-636.	1.6	84
90	The HWE Histidine Kinases, a New Family of Bacterial Two-Component Sensor Kinases with Potentially Diverse Roles in Environmental Signaling. Journal of Bacteriology, 2004, 186, 445-453.	1.0	83

#	Article	IF	Citations
91	Proteolysis alters the spectral properties of 124 kdalton phytochrome from Avena. Planta, 1982, 156, 158-165.	1.6	82
92	Characterization of Tobacco Expressing Functional Oat Phytochrome. Plant Physiology, 1991, 96, 775-785.	2.3	81
93	Use of Ubiquitin Fusions to Augment Protein Expression in Transgenic Plants1. Plant Physiology, 1999, 119, 713-724.	2.3	81
94	Sequences within both the N- and C-terminal domains of phytochrome A are required for PFR ubiquitination and degradation. Plant Journal, 1999, 17, 155-167.	2.8	80
95	Structural and functional analysis of the six regulatory particle triple-A ATPase subunits from the Arabidopsis 26S proteasome. Plant Journal, 1999, 18, 529-539.	2.8	80
96	HSP101 Interacts with the Proteasome and Promotes the Clearance of Ubiquitylated Protein Aggregates. Plant Physiology, 2019, 180, 1829-1847.	2.3	80
97	Ubiquitin C-terminal hydrolases 1 and 2 affect shoot architecture in Arabidopsis. Plant Journal, 2007, 51, 441-457.	2.8	79
98	Two cDNAs from Arabidopsis thaliana encode putative RNA binding proteins containing glycine-rich domains. Plant Molecular Biology, 1993, 21, 695-699.	2.0	76
99	Evidence for a physical association of the COP9 signalosome, the proteasome, and specific SCF E3 ligases in vivo. Current Biology, 2003, 13, R504-R505.	1.8	76
100	The RPN5 Subunit of the 26s Proteasome Is Essential for Gametogenesis, Sporophyte Development, and Complex Assembly inArabidopsisÂ. Plant Cell, 2009, 21, 460-478.	3.1	76
101	Cyanochromes Are Blue/Green Light Photoreversible Photoreceptors Defined by a Stable Double Cysteine Linkage to a Phycoviolobilin-type Chromophore. Journal of Biological Chemistry, 2009, 284, 29757-29772.	1.6	75
102	Inhibition of Ubiquitin-mediated Proteolysis by the Arabidopsis 26 S Protease Subunit S5a. Journal of Biological Chemistry, 1995, 270, 29660-29663.	1.6	74
103	The Proteasome Stress Regulon Is Controlled by a Pair of NAC Transcription Factors in Arabidopsis. Plant Cell, 2016, 28, 1279-1296.	3.1	72
104	Quaternary organization of a phytochrome dimer as revealed by cryoelectron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10872-10877.	3.3	69
105	Phytochrome structure and photochemistry: recent advances toward a complete molecular picture. Current Opinion in Plant Biology, 2011, 14, 498-506.	3.5	69
106	Arabidopsis cargo receptor NBR1 mediates selective autophagy of defective proteins. Journal of Experimental Botany, 2020, 71, 73-89.	2.4	69
107	Selective autophagy regulates heat stress memory in Arabidopsis by NBR1-mediated targeting of HSP90.1 and ROF1. Autophagy, 2021, 17, 2184-2199.	4.3	68
108	Oxidation and alkylation stresses activate ribosome-quality control. Nature Communications, 2019, 10, 5611.	5.8	65

#	Article	IF	Citations
109	Chromophore Heterogeneity and Photoconversion in Phytochrome Crystals and Solution Studied by Resonance Raman Spectroscopy. Angewandte Chemie - International Edition, 2008, 47, 4753-4755.	7.2	64
110	Kaempferol 3-O-Galactoside, 7-O-Rhamnoside is the Major Green Fluorescing Compound in the Epidermis of Vicia faba. Plant Physiology, 1982, 69, 522-525.	2.3	62
111	The Serine-Rich N-Terminal Domain of Oat Phytochrome A Helps Regulate Light Responses and Subnuclear Localization of the Photoreceptor. Plant Physiology, 2002, 129, 1127-1137.	2.3	62
112	The Ubiquitin-Specific Protease Subfamily UBP3/UBP4 Is Essential for Pollen Development and Transmission in Arabidopsis. Plant Physiology, 2007, 145, 801-813.	2.3	61
113	Defining the SUMO System in Maize: SUMOylation Is Up-Regulated during Endosperm Development and Rapidly Induced by Stress. Plant Physiology, 2016, 171, 2191-2210.	2.3	58
114	COMPARISON OF THE PROTEIN CONFORMATIONS BETWEEN DIFFERENT FORMS (P_r AND) Tj ETQq0 0 0 rgBT /Overlock 10 Photochemistry and Photobiology, 1987, 45, 429-432.	1.3	57
115	The amino-terminus of phytochrome A contains two distinct functional domains. Plant Journal, 1996, 9, 243-257.	2.8	57
116	Tetranitromethane Oxidation of Phytochrome Chromophore as a Function of Spectral Form and Molecular Weight. Plant Physiology, 1984, 74, 755-758.	2.3	56
117	Polypeptide tags, ubiquitous modifiers for plant protein regulation. , 1999, 41, 435-442.		55
118	Dynamic Structural Changes Underpin Photoconversion of a Blue/Green Cyanobacteriochrome between Its Dark and Photoactivated States. Journal of Biological Chemistry, 2014, 289, 3055-3065.	1.6	55
119	Tripeptidyl Peptidase II. An Oligomeric Protease Complex from Arabidopsis. Plant Physiology, 2005, 138, 1046-1057.	2.3	54
120	Role of Carotenoids in the Phototropic Response of Corn Seedlings. Plant Physiology, 1981, 68, 798-801.	2.3	53
121	Solution Structure of a Cyanobacterial Phytochrome GAF Domain in the Red-Light-Absorbing Ground State. Journal of Molecular Biology, 2008, 383, 403-413.	2.0	53
122	KELCH F-BOX protein positively influences Arabidopsis seed germination by targeting PHYTOCHROME-INTERACTING FACTOR1. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4120-E4129.	3.3	53
123	Autophagy Plays Prominent Roles in Amino Acid, Nucleotide, and Carbohydrate Metabolism during Fixed-Carbon Starvation in Maize. Plant Cell, 2020, 32, 2699-2724.	3.1	53
124	Reticulon proteins modulate autophagy of the endoplasmic reticulum in maize endosperm. ELife, 2020, 9, .	2.8	53
125	MUBs, a Family of Ubiquitin-fold Proteins That Are Plasma Membrane-anchored by Prenylation. Journal of Biological Chemistry, 2006, 281, 27145-27157.	1.6	51
126	Characterization of Two Thermostable Cyanobacterial Phytochromes Reveals Global Movements in the Chromophore-binding Domain during Photoconversion. Journal of Biological Chemistry, 2008, 283, 21251-21266.	1.6	51

#	Article	IF	Citations
127	A BLUE LIGHT-SENSITIVE CYTOCHROME-FLAVIN COMPLEX FROM CORN COLEOPTILES. FURTHER CHARACTERIZATION. Photochemistry and Photobiology, 1981, 34, 697-703.	1.3	51
128	Homologs of the essential ubiquitin conjugating enzymes UBC1, 4, and 5 in yeast are encoded by a multigene family in Arabidopsis thaliana. Plant Journal, 1993, 3, 545-552.	2.8	50
129	Comparison of the effects of exogenous native phytochrome and in-vivo irradiation on in-vitro transcription in isolated nuclei from barley (Hordeum vulgare). Planta, 1987, 170, 505-514.	1.6	49
130	The Light-Response BTB1 and BTB2 Proteins Assemble Nuclear Ubiquitin Ligases That Modify Phytochrome B and D Signaling in Arabidopsis Â Â. Plant Physiology, 2012, 160, 118-134.	2.3	49
131	PCH1 regulates light, temperature, and circadian signaling as a structural component of phytochrome B-photobodies in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8603-8608.	3.3	49
132	Structure and functional analysis of the 26S proteasome subunits from plants. Molecular Biology Reports, 1999, 26, 137-146.	1.0	48
133	The Cellular Level of PR500, a Protein Complex Related to the 19S Regulatory Particle of the Proteasome, Is Regulated in Response to Stresses in Plants. Molecular Biology of the Cell, 2001, 12, 383-392.	0.9	48
134	ArabidopsisATG11, a scaffold that links the ATG1-ATG13 kinase complex to general autophagy and selective mitophagy. Autophagy, 2014, 10, 1466-1467.	4.3	47
135	The RPT2 Subunit of the 26S Proteasome Directs Complex Assembly, Histone Dynamics, and Gametophyte and Sporophyte Development inArabidopsisÂ. Plant Cell, 2011, 23, 4298-4317.	3.1	46
136	Phytochrome signaling: solving the Gordian knot with microbial relatives. Trends in Plant Science, 2011, 16, 417-426.	4.3	44
137	UPL1 and 2, two 405â€ƒkDa ubiquitin-protein ligases from Arabidopsis thaliana related to the HECT-domain protein family. Plant Journal, 1999, 20, 183-195.	2.8	42
138	Structure-Guided Engineering of Plant Phytochrome B with Altered Photochemistry and Light Signaling Â Â. Plant Physiology, 2013, 161, 1445-1457.	2.3	42
139	Red Light-Induced Accumulation of Ubiquitin-Phytochrome Conjugates in Both Monocots and Dicots. Plant Physiology, 1989, 90, 380-384.	2.3	41
140	Dual function of Rpn5 in two PCI complexes, the 26S proteasome and COP9 signalosome. Molecular Biology of the Cell, 2011, 22, 911-920.	0.9	40
141	Photosensing and Thermosensing by Phytochrome B Require Both Proximal and Distal Allosteric Features within the Dimeric Photoreceptor. Scientific Reports, 2017, 7, 13648.	1.6	39
142	AUXIN UP-REGULATED F-BOX PROTEIN1 Regulates the Cross Talk between Auxin Transport and Cytokinin Signaling during Plant Root Growth Â Â. Plant Physiology, 2011, 156, 1878-1893.	2.3	36
143	AUTOPHAGY-RELATED14 and Its Associated Phosphatidylinositol 3-Kinase Complex Promote Autophagy in Arabidopsis. Plant Cell, 2020, 32, 3939-3960.	3.1	36
144	Mass spectrometric identification of SUMO substrates provides insights into heat stress-induced SUMOylation in plants. Plant Signaling and Behavior, 2011, 6, 130-133.	1.2	35

#	Article	IF	Citations
145	Homologues of wheat ubiquitin-conjugating enzymes - TaUBC1 and TaUBC4 are encoded by small multigene families in Arabidopsis thaliana. Plant Molecular Biology, 1994, 24, 651-661.	2.0	33
146	Eat or be eaten: The autophagic plight of inactive 26S proteasomes. Autophagy, 2015, 11, 1927-1928.	4.3	33
147	Spectral Characterization and Proteolytic Mapping of Native 120-Kilodalton Phytochrome from Cucurbita pepo L.. Plant Physiology, 1985, 77, 990-998.	2.3	32
148	Demonstration of ATP-Dependent, Ubiquitin-Conjugating Activities in Higher Plants. Plant Physiology, 1987, 84, 332-336.	2.3	32
149	Ubiquitin, a key component in the degradation of plant proteins. Physiologia Plantarum, 1987, 70, 103-106.	2.6	32
150	CHROMOPHORE ROTATION IN 124â€kD ALTON A vena sativa PHYTOCHROME AS MEASURED BY LIGHTâ€INDUCED CHANGES IN LINEAR DICHROISM. Photochemistry and Photobiology, 1985, 41, 221-223.	1.3	31
151	Mass Spectrometric Analyses Reveal a Central Role for Ubiquitylation in Remodeling theÂ Arabidopsis Proteome during Photomorphogenesis. Molecular Plant, 2017, 10, 846-865.	3.9	31
152	The Vacuolar Protein Sorting-38 Subunit of the Arabidopsis Phosphatidylinositol-3-Kinase Complex Plays Critical Roles in Autophagy, Endosome Sorting, and Gravitropism. Frontiers in Plant Science, 2018, 9, 781.	1.7	31
153	Ubiquitylome analysis reveals a central role for the ubiquitin-proteasome system in plant innate immunity. Plant Physiology, 2021, 185, 1943-1965.	2.3	30
154	Arabidopsis Membrane-anchored Ubiquitin-fold (MUB) Proteins Localize a Specific Subset of Ubiquitin-conjugating (E2) Enzymes to the Plasma Membrane. Journal of Biological Chemistry, 2011, 286, 14913-14921.	1.6	29
155	Plant phytochrome B is an asymmetric dimer with unique signalling potential. Nature, 2022, 604, 127-133.	13.7	29
156	High Performance Liquid Chromatography Resolution of Ubiquitin Pathway Enzymes from Wheat Germ. Plant Physiology, 1990, 94, 710-716.	2.3	28
157	The Arabidopsis thaliana UBC7/13/14 Genes Encode a Family of Multiubiquitin Chain-forming E2 Enzymes. Journal of Biological Chemistry, 1996, 271, 12150-12158.	1.6	28
158	ROSEOFLAVIN AS A BLUE LIGHT RECEPTOR ANALOG: SPECTROSCOPIC CHARACTERIZATION. Photochemistry and Photobiology, 1980, 32, 393-398.	1.3	26
159	Effect of Xenon on the Excited States of Phototropic Receptor Flavin in Corn Seedlings. Plant Physiology, 1981, 67, 996-998.	2.3	26
160	Epigenomic programming contributes to the genomic drift evolution of the F-Box protein superfamily in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16927-16932.	3.3	25
161	Improved Spirodela polyrhiza genome and proteomic analyses reveal a conserved chromosomal structure with high abundance of chloroplastic proteins favoring energy production. Journal of Experimental Botany, 2021, 72, 2491-2500.	2.4	25
162	Differing biophysical properties underpin the unique signaling potentials within the plant phytochrome photoreceptor families. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	24

#	Article	IF	Citations
163	ATPase and ubiquitin-binding proteins of the yeast proteasome. Molecular Biology Reports, 1997, 24, 17-26.	1.0	22
164	ATG7contributes to plant basal immunity towards fungal infection. Plant Signaling and Behavior, 2011, 6, 1040-1042.	1.2	22
165	Mechanism of Specific Inhibition of Phototropism by Phenylacetic Acid in Corn Seedling. Plant Physiology, 1981, 67, 1011-1015.	2.3	21
166	Members of two gene families encoding ubiquitin-conjugating enzymes, AtUBC1-3 and AtUBC4-6, fromArabidopsis thaliana are differentially expressed. Plant Molecular Biology, 1996, 31, 493-505.	2.0	21
167	Revised nomenclature and functional overview of the ULP gene family of plant deSUMOylating proteases. Journal of Experimental Botany, 2018, 69, 4505-4509.	2.4	20
168	Characterization and Quantification of Intact 26S Proteasome Proteins by Real-Time Measurement of Intrinsic Fluorescence Prior to Top-down Mass Spectrometry. PLoS ONE, 2013, 8, e58157.	1.1	20
169	Photoreversible interconversion of a phytochrome photosensory module in the crystalline state. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 300-307.	3.3	19
170	X-ray Radiation Induces Deprotonation of the Bilin Chromophore in Crystalline D. radiodurans Phytochrome. Journal of the American Chemical Society, 2015, 137, 2792-2795.	6.6	17
171	Proteomic analysis of affinity-purified 26S proteasomes identifies a suite of assembly chaperones in Arabidopsis. Journal of Biological Chemistry, 2019, 294, 17570-17592.	1.6	17
172	Ubiquitin carboxyl-terminal hydrolases are required for period maintenance of the circadian clock at high temperature in Arabidopsis. Scientific Reports, 2019, 9, 17030.	1.6	17
173	Phytochromes in Microorganisms. , 2005, , 171-195.		16
174	A ubiquitin-based vector for the co-ordinated synthesis of multiple proteins in plants. Plant Biotechnology Journal, 2007, 5, 413-421.	4.1	15
175	Fluorescence Analysis of Oat phyA Deletion Mutants Expressed in Tobacco Suggests that the N-Terminal Domain Determines the Photochemical and Spectroscopic Distinctions between phyA' and phyA"â€. Photochemistry and Photobiology, 1999, 69, 728-732.	1.3	14
176	Novel applications of the ubiquitin-dependent proteolytic pathway in plant genetic engineering. Current Opinion in Biotechnology, 1992, 3, 147-151.	3.3	13
177	To save or degrade: balancing proteasome homeostasis to maximize cell survival. Autophagy, 2018, 14, 2029-2031.	4.3	13
178	Fluorescence Analysis of Oat phyA Deletion Mutants Expressed in Tobacco Suggests that the N-Terminal Domain Determines the Photochemical and Spectroscopic Distinctions between phyAâ€² and phyAâ€²â€². Photochemistry and Photobiology, 1999, 69, 728.	1.3	13
179	Is the far-red-absorbing form of Avena phytochrome A that is present at the end of the day able to sustain stem-growth inhibition during the night in transgenic tobacco and tomato seedlings?. Planta, 1995, 197, 225.	1.6	12
180	Carboxy-Terminal Deletion Analysis of Oat Phytochrome A Reveals the Presence of Separate Domains Required for Structure and Biological Activity. Plant Cell, 1993, 5, 565.	3.1	11

#	Article	IF	Citations
181	Varshavsky's Contributions. Science, 2004, 306, 1290-1292.	6.0	11
182	The Next Generation of Training for Arabidopsis Researchers: Bioinformatics and Quantitative Biology. Plant Physiology, 2017, 175, 1499-1509.	2.3	11
183	Microautophagy Mediates Vacuolar Delivery of Storage Proteins in Maize Aleurone Cells. Frontiers in Plant Science, 2022, 13, 833612.	1.7	11
184	Prevention of aggregation after refolding by balanced stabilizationâ€“destabilization: production of the Arabidopsis thaliana protein APG8a (At4g21980) for NMR structure determination. Protein Expression and Purification, 2004, 34, 280-283.	0.6	10
185	The SUMO ligase MMS21 profoundly influences maize development through its impact on genome activity and stability. PLoS Genetics, 2021, 17, e1009830.	1.5	10
186	Variation in upstream open reading frames contributes to allelic diversity in maize protein abundance. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112516119.	3.3	10
187	Ubiquitin Goes Green. Trends in Cell Biology, 2016, 26, 3-5.	3.6	9
188	Purification of 26S Proteasomes and Their Subcomplexes from Plants. Methods in Molecular Biology, 2017, 1511, 301-334.	0.4	8
189	Sex and self-denial. Nature, 2003, 423, 229-230.	13.7	7
190	Regulator and substrate. Autophagy, 2012, 8, 982-984.	4.3	7
191	Morpheus Spectral Counter: A computational tool for labelâ€free quantitative mass spectrometry using the Morpheus search engine. Proteomics, 2016, 16, 920-924.	1.3	7
192	Crystallization and preliminary X-ray investigation of a ubiquitin carrier protein (E2) from Arabidopsis thaliana. Journal of Molecular Biology, 1992, 223, 1183-1186.	2.0	6
193	Purification of SUMO Conjugates from Arabidopsis for Mass Spectrometry Analysis. Methods in Molecular Biology, 2016, 1475, 257-281.	0.4	6
194	Genetic analyses of the Arabidopsis 26S proteasome regulatory particle reveal its importance during light stress and a specific role for the N-Terminus of RPT2 in development.. Plant Signaling and Behavior, 2012, 7, 973-978.	1.2	4
195	THE TRANSMISSION OF COMBINED NEUTRAL DENSITY FILTERS. Photochemistry and Photobiology, 1984, 39, 119-122.	1.3	3
196	A trio of ubiquitin ligases sequentially drives ubiquitylation and autophagic degradation of dysfunctional yeast proteasomes. Cell Reports, 2022, 38, 110535.	2.9	3
197	A misannotated locus positively influencing Arabidopsis seed germination is deconvoluted using multiple methods, including surrogate splicing. Plant Gene, 2017, 10, 74-85.	1.4	2
198	An evolutionarily distinct chaperone promotes 20S proteasome Î±-ring assembly in plants. Journal of Cell Science, 2020, 133, .	1.2	2

#	Article	IF	Citations
199	Use of Staphylococcus aureus Protein-A Subdomains as a Tag for the Sensitive Detection of Recombinant Fusion Proteins. BioTechniques, 1998, 25, 374-378.	0.8	1
200	Corrigendum to: The ATG1/ATG13 Protein Kinase Complex Is Both a Regulator and a Target of Autophagic Recycling in Arabidopsis. Plant Cell, 2021, 33, 3743-3744.	3.1	1
201	Reply: Internal Membranes in Maize Aleurone Protein Storage Vacuoles: Beyond Autophagy. Plant Cell, 2011, 23, 4171-4172.	3.1	0
202	Editorial: Intracellular Proteasome Dynamics. Frontiers in Molecular Biosciences, 2020, 7, 143.	1.6	0