Peter J Shaw

List of Publications by Year in descending order

147 papers	9,327 citations	25034 57 h-index	43889 91 g-index
196 all docs	196 docs citations	196 times ranked	7171 citing authors

#	Article	IF	Citations
1	Dmc1 is a candidate for temperature tolerance during wheat meiosis. Theoretical and Applied Genetics, 2020, 133, 809-828.	3.6	23
2	A Co-Expression Network in Hexaploid Wheat Reveals Mostly Balanced Expression and Lack of Significant Gene Loss of Homeologous Meiotic Genes Upon Polyploidization. Frontiers in Plant Science, 2019, 10, 1325.	3.6	24
3	Genome-Wide Transcription During Early Wheat Meiosis Is Independent of Synapsis, Ploidy Level, and the Ph1 Locus. Frontiers in Plant Science, 2018, 9, 1791.	3.6	44
4	Magnesium Increases Homoeologous Crossover Frequency During Meiosis in ZIP4 (Ph1 Gene) Mutant Wheat-Wild Relative Hybrids. Frontiers in Plant Science, 2018, 9, 509.	3.6	96
5	Genome-wide identification of physically clustered genes suggests chromatin-level co-regulation in male reproductive development in Arabidopsis thaliana. Nucleic Acids Research, 2017, 45, 3253-3265.	14.5	35
6	Dual effect of the wheat Ph1 locus on chromosome synapsis and crossover. Chromosoma, 2017, 126, 669-680.	2.2	108
7	Exploiting the ZIP4 homologue within the wheat Ph1 locus has identified two lines exhibiting homoeologous crossover in wheat-wild relative hybrids. Molecular Breeding, 2017, 37, 95.	2.1	126
8	Isolation of Nuclei and Nucleoli. Methods in Molecular Biology, 2017, 1511, 31-44.	0.9	2
9	Immunolabeling and In Situ Labeling of Isolated Plant Interphase Nuclei. Methods in Molecular Biology, 2016, 1429, 65-76.	0.9	4
10	Cell Differentiation and Development inArabidopsisAre Associated with Changes in Histone Dynamics at the Single-Cell Level Â. Plant Cell, 2015, 26, 4821-4833.	6.6	66
11	Plasticity of Chromatin Organization in the Plant Interphase Nucleus. , 2015, , 57-79.		2
12	An optical imaging chamber for viewing living plant cells and tissues at high resolution for extended periods. Plant Methods, 2015, 11, 22.	4.3	24
13	Two-Photon Photoactivation to Measure Histone Exchange Dynamics in Plant Root Cells. Bio-protocol, 2015, 5, .	0.4	2
14	Licensing MLH1 sites for crossover during meiosis. Nature Communications, 2014, 5, 4580.	12.8	91
15	The Plant Nucleolus. , 2013, , 65-76.		4
16	Physical clustering of FLC alleles during Polycomb-mediated epigenetic silencing in vernalization. Genes and Development, 2013, 27, 1845-1850.	5.9	74
17	Insights into Chromatin Structure and Dynamics in Plants. Biology, 2013, 2, 1378-1410.	2.8	33
18	Quantitative Dynamics of Telomere Bouquet Formation. PLoS Computational Biology, 2012, 8, e1002812.	3.2	37

#	Article	IF	Citations
19	ThePh1Locus Suppresses Cdk2-Type Activity during Premeiosis and Meiosis in Wheat Â. Plant Cell, 2012, 24, 152-162.	6.6	109
20	Nucleoli: Composition, Function, and Dynamics. Plant Physiology, 2012, 158, 44-51.	4.8	109
21	Centromeres Cluster De Novo at the Beginning of Meiosis in Brachypodium distachyon. PLoS ONE, 2012, 7, e44681.	2.5	23
22	Organization and dynamics of plant interphase chromosomes. Trends in Plant Science, 2011, 16, 273-281.	8.8	77
23	The Structure of rDNA Chromatin. , 2011, , 43-55.		9
24	Mapping chromatin conformation. F1000 Biology Reports, 2010, 2, .	4.0	7
25	Inducing chromosome pairing through premature condensation: analysis of wheat interspecific hybrids. Functional and Integrative Genomics, 2010, 10, 603-608.	3.5	35
26	AtTRB1, a telomeric DNA-binding protein from Arabidopsis, is concentrated in the nucleolus and shows highly dynamic association with chromatin. Plant Journal, 2010, 61, 637-649.	5.7	29
27	Plant U13 orthologues and orphan snoRNAs identified by RNomics of RNA from Arabidopsis nucleoli. Nucleic Acids Research, 2010, 38, 3054-3067.	14.5	39
28	Cell Typeâ€“Specific Chromatin Decondensation of a Metabolic Gene Cluster in Oats Â Â. Plant Cell, 2010, 21, 3926-3936.	6.6	63
29	Mass spectrometry in plant proteomic analysis. Plant Biosystems, 2010, 144, 703-714.	1.6	8
30	Dynamic Behavior ofArabidopsiseIF4A-III, Putative Core Protein of Exon Junction Complex: Fast Relocation to Nucleolus and Splicing Speckles under Hypoxia. Plant Cell, 2009, 21, 1592-1606.	6.6	88
31	Aberrant mRNA Transcripts and the Nonsense-Mediated Decay Proteins UPF2 and UPF3 Are Enriched in theArabidopsisNucleolus Â. Plant Cell, 2009, 21, 2045-2057.	6.6	93
32	Chromatin: linking structure and function in the nucleolus. Chromosoma, 2009, 118, 11-23.	2.2	75
33	Improving the chances of finding the right partner. Current Opinion in Genetics and Development, 2009, 19, 99-104.	3.3	33
34	In situ Analysis of Gene Expression in Plants. Methods in Molecular Biology, 2009, 513, 229-242.	0.9	5
35	A cyclin-dependent protein kinase, CDKC2, colocalizes with and modulates the distribution of spliceosomal components in Arabidopsis. Plant Journal, 2008, 54, 220-235.	5.7	36
36	Chromatin and Arabidopsis root development. Seminars in Cell and Developmental Biology, 2008, 19, 580-585.	5.0	7

#	Article	IF	Citations
37	Effective chromosome pairing requires chromatin remodeling at the onset of meiosis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6075-6080.	7.1	97
38	Proximalâ€“distal patterns of transcription factor gene expression during Arabidopsis root development. Journal of Experimental Botany, 2008, 59, 235-245.	4.8	9
39	Interplay of Ribosomal DNA Loci in Nucleolar Dominance: Dominant NORs Are Up-Regulated by Chromatin Dynamics in the Wheat-Rye System. PLoS ONE, 2008, 3, e3824.	2.5	31
40	Preparation of Arabidopsis Nuclei and Nucleoli. Methods in Molecular Biology, 2008, 463, 67-75.	0.9	11
41	ArabidopsisPOT1A interacts with TERT-V(I8), an N-terminal splicing variant of telomerase. Journal of Cell Science, 2007, 120, 3678-3687.	2.0	123
42	Fluorescence in situ hybridization on vibratome sections of plant tissues. Nature Protocols, 2007, 2, 1831-1838.	12.0	42
43	â€˜Open mindedâ€™ cells: how cells can change fate. Trends in Cell Biology, 2007, 17, 101-106.	7.9	63
44	In situ methods to localize transgenes and transcripts in interphase nuclei: a tool for transgenic plant research. Plant Methods, 2006, 2, 18.	4.3	11
45	New Insights into Nucleolar Architecture and Activity. International Review of Cytology, 2006, 255, 177-235.	6.2	161
46	Chromatin organization and cell fate switch respond to positional information in Arabidopsis. Nature, 2006, 439, 493-496.	27.8	135
47	Comparison of Widefield/Deconvolution and Confocal Microscopy for Three-Dimensional Imaging. , 2006, , 453-467.		34
48	Structure and function of the nucleolus in the spotlight. Current Opinion in Cell Biology, 2006, 18, 325-334.	5.4	192
49	A Distant Coilin Homologue Is Required for the Formation of Cajal Bodies in Arabidopsis. Molecular Biology of the Cell, 2006, 17, 2942-2951.	2.1	122
50	Threeâ€dimensional modelling of wheat endosperm development. New Phytologist, 2005, 168, 253-262.	7.3	21
51	Gene activation and deactivation related changes in the three-dimensional structure of chromatin. Chromosoma, 2005, 114, 331-337.	2.2	36
52	Large-scale chromatin decondensation induced in a developmentally activated transgene locus. Journal of Cell Science, 2005, 118, 1021-1031.	2.0	22
53	Systematic Spatial Analysis of Gene Expression during Wheat Caryopsis Development. Plant Cell, 2005, 17, 2172-2185.	6.6	112
54	Proteomic Analysis of the Arabidopsis Nucleolus Suggests Novel Nucleolar Functions. Molecular Biology of the Cell, 2005, 16, 260-269.	2.1	352

#	Article	IF	Citations
55	The Nucleolus: Playing by Different Rules?. Cell Cycle, 2005, 4, 102-105.	2.6	57
56	A streamlined method for systematic, high resolution in situ analysis of mRNA distribution in plants. Plant Methods, 2005, 1, 8.	4.3	21
57	Chromosome organization in wheat endosperm and embryo. Cytogenetic and Genome Research, 2005, 109, 175-180.	1.1	10
58	CycD1, a Putative G1 Cyclin from Antirrhinum majus, Accelerates the Cell Cycle in Cultured Tobacco BY-2 Cells by Enhancing Both G1/S Entry and Progression through S and G2 Phases. Plant Cell, 2004, 16, 2364-2379.	6.6	93
59	High-throughput protein localization in Arabidopsis using Agrobacterium-mediated transient expression of GFP-ORF fusions. Plant Journal, 2004, 41, 162-174.	5.7	190
60	Homologue recognition during meiosis is associated with a change in chromatin conformation. Nature Cell Biology, 2004, 6, 906-908.	10.3	135
61	Plant nuclear bodies. Current Opinion in Plant Biology, 2004, 7, 614-620.	7.1	118
62	Chromosomes associate premeiotically and in xylem vessel cells via their telomeres and centromeres in diploid rice (Oryza sativa). Chromosoma, 2004, 112, 300-307.	2.2	71
63	Effect of 5-azacytidine and trichostatin A on somatic centromere association in wheat. Genome, 2004, 47, 399-403.	2.0	8
64	Interphase chromosomes and the Rabl configuration: does genome size matter?. Journal of Microscopy, 2004, 214, 201-206.	1.8	51
65	Arabidopsis nucleolar protein database (AtNoPDB). Nucleic Acids Research, 2004, 33, D633-D636.	14.5	68
66	AHP2 is required for bivalent formation and for segregation of homologous chromosomes in Arabidopsis meiosis. Plant Journal, 2003, 36, 1-11.	5.7	78
67	Chromosomes form into seven groups in hexaploid and tetraploid wheat as a prelude to meiosis. Plant Journal, 2003, 36, 21-29.	5.7	101
68	The architecture of interphase chromosomes and gene positioning are altered by changes in DNA methylation and histone acetylation. Journal of Cell Science, 2002, 115, 4597-4605.	2.0	59
69	The architecture of interphase chromosomes and nucleolar transcription sites in plants. Journal of Structural Biology, 2002, 140, 31-38.	2.8	34
70	3D gold in situ labelling in the EM. Plant Journal, 2002, 29, 237-243.	5.7	9
71	Single ribosomal transcription units are linear, compacted Christmas trees in plant nucleoli. Plant Journal, 2001, 27, 223-233.	5.7	55
72	The Ph1 locus is needed to ensure specific somatic and meiotic centromere association. Nature, 2001, 411, 204-207.	27.8	217

#	Article	IF	Citations
73	A pea homologue of human DNA helicase I is localized within the dense fibrillar component of the nucleolus and stimulated by phosphorylation with CK2 and cdc2 protein kinases. Plant Journal, 2001, 25, 9-17.	5.7	7
74	KOJAK encodes a cellulose synthase-like protein required for root hair cell morphogenesis in Arabidopsis. Genes and Development, 2001, 15, 79-89.	5.9	232
75	A pea homologue of human DNA helicase I is localized within the dense fibrillar component of the nucleolus and stimulated by phosphorylation with CK2 and cdc2 protein kinases. Plant Journal, 2001, 25, 9-17.	5.7	36
76	Native and Artificial Reticuloplasmins Co-Accumulate in Distinct Domains of the Endoplasmic Reticulum and in Post-Endoplasmic Reticulum Compartments. Plant Physiology, 2001, 127, 1212-1223.	4.8	6
77	The nucleus: a highly organized but dynamic structure. Journal of Microscopy, 2000, 198, 199-207.	1.8	20
78	Association of Phosphatidylinositol 3-Kinase with Nuclear Transcription Sites in Higher Plants. Plant Cell, 2000, 12, 1679.	6.6	0
79	Association of Phosphatidylinositol 3-Kinase with Nuclear Transcription Sites in Higher Plants. Plant Cell, 2000, 12, 1679-1687.	6.6	87
80	Polyploidy Induces Centromere Association. Journal of Cell Biology, 2000, 148, 233-238.	5.2	80
81	ATP-dependent regulation of nuclear Ca2+levels in plant cells. FEBS Letters, 2000, 476, 145-149.	2.8	27
82	Widely separated multiple transgene integration sites in wheat chromosomes are brought together at interphase. Plant Journal, 2000, 24, 713-723.	5.7	5
83	Widely separated multiple transgene integration sites in wheat chromosomes are brought together at interphase. Plant Journal, 2000, 24, 713-723.	5.7	66
84	The Movement of Coiled Bodies Visualized in Living Plant Cells by the Green Fluorescent Protein. Molecular Biology of the Cell, 1999, 10, 2297-2307.	2.1	138
85	Splicing-independent processing of plant box C/D and box H/ACA small nucleolar RNAs. Plant Molecular Biology, 1999, 39, 1091-1100.	3.9	32
86	Cell biology: From molecules to cells to organisms. Current Opinion in Plant Biology, 1999, 2, 437-439.	7.1	0
87	Meiosis: vive la difference!. Current Opinion in Plant Biology, 1998, 1, 458-462.	7.1	16
88	The use of vibratome sections of cereal spikelets to study anther development and meiosis. Plant Journal, 1998, 14, 503-508.	5.7	16
89	Small Nucleolar RNAs and Pre-rRNA Processing in Plants. Plant Cell, 1998, 10, 649.	6.6	2
90	Transcription Sites Are Not Correlated with Chromosome Territories in Wheat Nuclei. Journal of Cell Biology, 1998, 143, 5-12.	5.2	135

#	Article	IF	Citations
91	Small Nucleolar RNAs and Pre-rRNA Processing in Plants. Plant Cell, 1998, 10, 649-657.	6.6	58
92	Ca2+Oscillations in Plant Cells: Initiation by Rapid Elevation in Cytosolic Free Ca2+Levels. Biochemical and Biophysical Research Communications, 1997, 234, 690-694.	2.1	20
93	Association of homologous chromosomes during floral development. Current Biology, 1997, 7, 905-908.	3.9	95
94	Clusters of multiple different small nucleolar RNA genes in plants are expressed as and processed from polycistronic pre-snoRNAs. EMBO Journal, 1997, 16, 5742-5751.	7.8	93
95	PIS1, a negative regulator of the action of auxin transport inhibitors in Arabidopsis thaliana. Plant Journal, 1997, 12, 583-595.	5.7	69
96	Microinjection of fluorescent tubulin into plant cells provides a representative picture of the cortical microtubule array. Plant Journal, 1997, 12, 229-234.	5.7	14
97	Nucleolar organizer expression inAllium cepa L. chromosomes. Chromosoma, 1996, 105, 12-19.	2.2	23
98	Gibberellicâ€acidâ€induced reorientation of cortical microtubules in living plant cells. Journal of Microscopy, 1996, 181, 140-144.	1.8	48
99	Nucleolar organizer expression in Allium cepa L. chromosomes. Chromosoma, 1996, 105, 12-19.	2.2	6
100	Nuclear Ca2+-fluxes and phosphoinositides in plants. Biochemical Society Transactions, 1995, 23, 581S-581S.	3.4	1
101	Dynamic microtubules under the radial and outer tangential walls of microinjected pea epidermal cells observed by computer reconstruction. Plant Journal, 1995, 7, 17-23.	5.7	67
102	The Nucleolus. Annual Review of Cell and Developmental Biology, 1995, 11, 93-121.	9.4	394
103	Cloning and Characterization of a Dihydrolipoamide Acetyltransferase (E2) Subunit of the Pyruvate Dehydrogenase Complex from Arabidopsis thaliana. Journal of Biological Chemistry, 1995, 270, 5412-5417.	3.4	32
104	Association of Multiple GTP-Binding Proteins with the Plant Cytoskeleton and Nuclear Matrix. Biochemical and Biophysical Research Communications, 1995, 210, 7-13.	2.1	16
105	Dissecting the centromere of the human Y chromosome with cloned telomeric DNA. Human Molecular Genetics, 1994, 3, 1227-1237.	2.9	99
106	Molecular characterisation of plant U14 small nucleolar RNA genes: closely linked genes are transcribed as polycistronic U14 transcripts. Nucleic Acids Research, 1994, 22, 5196-5203.	14.5	46
107	Deconvolution in 3-D optical microscopy. The Histochemical Journal, 1994, 26, 687-694.	0.6	60
108	Microinjected profilin affects cytoplasmic streaming in plant cells by rapidly depolymerizing actin microfilaments. Current Biology, 1994, 4, 215-219.	3.9	215

#	Article	IF	Citations
109	Dynamic reorientation of cortical microtubules, from transverse to longitudinal, in living plant cells.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 6050-6053.	7.1	197
110	Confocal microscopy, image restoration, and nuclear structure. Proceedings Annual Meeting Electron Microscopy Society of America, 1993, 51, 146-147.	0.0	0
111	Confocal microscopy and image processing in the study of plant nuclear structure. Journal of Microscopy, 1992, 166, 87-97.	1.8	18
112	Confocal laser microscopy and threeâ€dimensional reconstruction of nucleusâ€associated microtubules in the division plane of vacuolated plant cells. Journal of Microscopy, 1992, 166, 99-109.	1.8	34
113	Widely dispersed DNA within plant and animal nucleoli visualised by 3-D fluorescence microscopy. Chromosoma, 1992, 101, 478-482.	2.2	21
114	Identification and localisation of a nucleoporin-like protein component of the plant nuclear matrix. Planta, 1992, 187, 414-20.	3.2	17
115	Cellâ€cycleâ€dependent changes in labelling of specific phosphoproteins by the monoclonal antibody MPMâ€2 in plant cells. Plant Journal, 1992, 2, 723-732.	5.7	37
116	The cell wall of the chlamydomonad flagellate,Gloeomonas kupfferi (Volvocales, Chlorophyta). Protoplasma, 1992, 168, 95-105.	2.1	5
117	Scale biogenesis in the green alga,Mesostigma viride. Protoplasma, 1992, 167, 19-32.	2.1	17
118	Three-dimensional fluorescence microscopy. Progress in Biophysics and Molecular Biology, 1991, 56, 187-213.	2.9	28
119	Microtubules rich in post-translationally modified Î±-tubulin form distinct arrays in frog lens epithelial cells. Experimental Eye Research, 1991, 52, 743-753.	2.6	11
120	The pointâ€spread function of a confocal microscope: its measurement and use in deconvolution of 3â€D data. Journal of Microscopy, 1991, 163, 151-165.	1.8	156
121	Localization of telomeres in plant interphase nuclei by in situ hybridization and 3D confocal microscopy. Chromosoma, 1991, 100, 424-431.	2.2	86
122	Monoclonal antibodies to plant nuclear matrix reveal intermediate filament- related components within the nucleus. Journal of Cell Science, 1991, 98, 293-302.	2.0	74
123	Nucleus-associated microtubules help determine the division plane of plant epidermal cells: avoidance of four-way junctions and the role of cell geometry.. Journal of Cell Biology, 1990, 110, 1111-1122.	5.2	99
124	Three-dimensional organization of ribosomal DNA in interphase nuclei ofPisum sativum by in situ hybridization and optical tomography. Chromosoma, 1990, 99, 143-151.	2.2	71
125	Cell wall glycoproteins of : Negative stain electron microscopy and epitope mapping of the molecules. Cell Biology International Reports, 1990, 14, 47-58.	0.6	2
126	Localization of ribosomal and telomeric DNA sequences in intact plant nuclei by inâ€situ hybridization and threeâ€dimensional optical microscopy. Journal of Microscopy, 1990, 157, 83-89.	1.8	33

#	Article	IF	Citations
127	Chapter 13 Fluorescence Microscopy in Three Dimensions. Methods in Cell Biology, 1989, 30, 353-377.	1.1	595
128	Tilted view reconstruction in optical microscopy. Three-dimensional reconstruction of Drosophila melanogaster embryo nuclei. Biophysical Journal, 1989, 55, 101-110.	0.5	111
129	An actin network is present in the cytoplasm throughout the cell cycle of carrot cells and associates with the dividing nucleus.. Journal of Cell Biology, 1987, 105, 387-395.	5.2	340
130	Monoclonal antibodies to the plant nuclear matrix. Cell Biology International Reports, 1987, 11, 244.	0.6	0
131	Assembly of cell-wall glycoproteins of Chlamydomonas reinhardii: Oligosaccharides are added in medial and trans Golgi compartments. Planta, 1987, 171, 302-312.	3.2	31
132	The zygote cell wall of Chlamydomonas reinhardii: a structural, chemical and immunological approach. Planta, 1987, 170, 433-445.	3.2	27
133	Endoplasmic microtubules connect the advancing nucleus to the tip of legume root hairs, but F-actin is involved in basipetal migration. Cytoskeleton, 1987, 8, 27-36.	4.4	105
134	An analysis of seed development inPisum sativum V. Fluorescence triple staining for investigating cotyledon cell development. Protoplasma, 1987, 140, 164-172.	2.1	18
135	Immuno-gold localization of cytochrome f, light-harvesting complex, ATP synthase and ribulose 1,5-bisphosphate carboxylase/oxygenase. Planta, 1985, 165, 333-339.	3.2	42
136	Subunit arrangement of spinach ribulose 1,5-bisphosphate carboxylase/oxygenase. Planta, 1985, 163, 141-144.	3.2	8
137	Three-dimensional architecture of the cell sheath and septa of Methanospirillum hungatei. Journal of Bacteriology, 1985, 161, 750-757.	2.2	46
138	Constrained least-squares fitting of the lattice lines in three-dimensional reconstruction of monolayer crystals. Ultramicroscopy, 1984, 14, 363-365.	1.9	12
139	Three-dimensional structure of a cell wall glycoprotein. Journal of Molecular Biology, 1982, 162, 459-471.	4.2	15
140	The low-resolution structure of human muscle aldolase. Philosophical Transactions of the Royal Society of London Series B, Biological Sciences, 1981, 293, 209-214.	2.3	16
141	The formation of two-dimensional arrays of isometric plant viruses in the presence of polyethylene glycol. Micron (1969), 1981, 12, 37-45.	0.1	1
142	A flat-bed scanning microdensitometer for computer image processing of electron micrographs. Micron (1969), 1981, 12, 123-130.	0.1	1
143	Tilted specimen in the electron microscope: A simple specimen holder and the calculation of tilt angles for crystalline specimens. Micron (1969), 1981, 12, 279-282.	0.1	12
144	The formation of two-dimensional arrays of isometric plant viruses in the presence of polyethylene glycol. Micron (1969), 1980, 11, 373-374.	0.1	0

#	Article	IF	Citations
145	Crystallographic structure analysis of glucose 6-phosphate isomerase at 3Â·5 Ã... resolution. Journal of Molecular Biology, 1977, 109, 475-485.	4.2	54
146	The active site of glucose phosphate isomerase. FEBS Letters, 1976, 65, 50-55.	2.8	42
147	Three-dimensional structure of pig muscle phosphoglucose isomerase at 6 Ã... resolution. Journal of Molecular Biology, 1974, 89, 195-203.	4.2	19