

L Andrew Staehelin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2687430/publications.pdf>

Version: 2024-02-01

111
papers

11,832
citations

20817

60
h-index

27406

106
g-index

111
all docs

111
docs citations

111
times ranked

8067
citing authors

#	ARTICLE	IF	CITATIONS
1	Golgi Structure in Three Dimensions: Functional Insights from the Normal Rat Kidney Cell. <i>Journal of Cell Biology</i> , 1999, 144, 1135-1149.	5.2	607
2	Stop-and-Go Movements of Plant Golgi Stacks Are Mediated by the Acto-Myosin System. <i>Plant Physiology</i> , 1999, 121, 1127-1141.	4.8	546
3	The plant ER: a dynamic organelle composed of a large number of discrete functional domains. <i>Plant Journal</i> , 1997, 11, 1151-1165.	5.7	425
4	Plastoglobules Are Lipoprotein Subcompartments of the Chloroplast That Are Permanently Coupled to Thylakoid Membranes and Contain Biosynthetic Enzymes. <i>Plant Cell</i> , 2006, 18, 1693-1703.	6.6	401
5	Advances in ultrarapid freezing for the preservation of cellular ultrastructure. <i>Journal of Electron Microscopy Technique</i> , 1986, 3, 177-210.	1.1	399
6	Functional Compartmentation of the Golgi Apparatus of Plant Cells. <i>Plant Physiology</i> , 1992, 99, 1070-1083.	4.8	364
7	Reevaluation of the Effects of Brefeldin A on Plant Cells Using Tobacco Bright Yellow 2 Cells Expressing Golgi-Targeted Green Fluorescent Protein and COPI Antisera. <i>Plant Cell</i> , 2002, 14, 237-261.	6.6	329
8	High-pressure freezing for the preservation of biological structure: Theory and practice. <i>Journal of Electron Microscopy Technique</i> , 1989, 13, 165-174.	1.1	296
9	Senescence-associated vacuoles with intense proteolytic activity develop in leaves of Arabidopsis and soybean. <i>Plant Journal</i> , 2005, 41, 831-844.	5.7	296
10	Visualization of the supramolecular architecture of chlorosomes (chlorobium type vesicles) in freeze-fractured cells of <i>Chloroflexus aurantiacus</i> . <i>Archives of Microbiology</i> , 1978, 119, 269-277.	2.2	287
11	Electron Tomographic Analysis of Somatic Cell Plate Formation in Meristematic Cells of Arabidopsis Preserved by High-Pressure Freezing[W]. <i>Plant Cell</i> , 2004, 16, 836-856.	6.6	267
12	Supramolecular organization of chlorosomes (chlorobium vesicles) and of their membrane attachment sites in <i>Chlorobium limicola</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1980, 589, 30-45.	1.0	261
13	LUMENAL PLASMA MEMBRANE OF THE URINARY BLADDER. <i>Journal of Cell Biology</i> , 1972, 53, 73-91.	5.2	249
14	Electron Tomography of RabA4b and Plâ€4K ² 1â€Labeled <i>Trans</i> Golgi Network Compartments in <i>Arabidopsis</i>. <i>Traffic</i> , 2011, 12, 313-329.	2.7	246
15	Immunogold localization of the cell-wall-matrix polysaccharides rhamnogalacturonan I and xyloglucan during cell expansion and cytokinesis in <i>Trifolium pratense</i> L.; implication for secretory pathways. <i>Planta</i> , 1988, 174, 433-445.	3.2	209
16	The Proteolytic Processing of Seed Storage Proteins in Arabidopsis Embryo Cells Starts in the Multivesicular Bodies. <i>Plant Cell</i> , 2006, 18, 2567-2581.	6.6	188
17	STRUCTURAL DIFFERENTIATION OF STACKED AND UNSTACKED CHLOROPLAST MEMBRANES. <i>Journal of Cell Biology</i> , 1971, 48, 594-619.	5.2	183
18	Three-Dimensional Analysis of Syncytial-Type Cell Plates during Endosperm Cellularization Visualized by High Resolution Electron Tomography[W]. <i>Plant Cell</i> , 2001, 13, 2033-2051.	6.6	175

#	ARTICLE	IF	CITATIONS
19	Nanoscale Architecture of Endoplasmic Reticulum Export Sites and of Golgi Membranes as Determined by Electron Tomography. <i>Plant Physiology</i> , 2008, 147, 1454-1468.	4.8	168
20	Selective Trafficking of Non-Cell-Autonomous Proteins Mediated by NtNCAPP1. <i>Science</i> , 2003, 299, 392-396.	12.6	165
21	Simulations of the static and dynamic molecular conformations of xyloglucan. The role of the fucosylated sidechain in surface-specific sidechain folding. <i>Plant Journal</i> , 1991, 1, 195-215.	5.7	162
22	Redistribution of Golgi Stacks and Other Organelles during Mitosis and Cytokinesis in Plant Cells. <i>Plant Physiology</i> , 2000, 124, 135-152.	4.8	162
23	Developing Seeds of Arabidopsis Store Different Minerals in Two Types of Vacuoles and in the Endoplasmic Reticulum. <i>Plant Cell</i> , 2002, 14, 1311-1327.	6.6	160
24	Chloroplast structure: from chlorophyll granules to supra-molecular architecture of thylakoid membranes. <i>Photosynthesis Research</i> , 2003, 76, 185-196.	2.9	160
25	A nomenclature for the genes encoding the chlorophylla/b-binding proteins of higher plants. <i>Plant Molecular Biology Reporter</i> , 1992, 10, 242-253.	1.8	155
26	<i>Arabidopsis</i> Protein Disulfide Isomerase-5 Inhibits Cysteine Proteases during Trafficking to Vacuoles before Programmed Cell Death of the Endothelium in Developing Seeds. <i>Plant Cell</i> , 2008, 20, 2205-2220.	6.6	155
27	Plant Cytokinesis: Terminology for Structures and Processes. <i>Trends in Cell Biology</i> , 2017, 27, 885-894.	7.9	155
28	Three-Dimensional Architecture of Grana and Stroma Thylakoids of Higher Plants as Determined by Electron Tomography. <i>Plant Physiology</i> , 2011, 155, 1601-1611.	4.8	148
29	Immunogold Localization of Xyloglucan and Rhamnogalacturonan I in the Cell Walls of Suspension-Cultured Sycamore Cells. <i>Plant Physiology</i> , 1986, 82, 787-794.	4.8	147
30	Statolith Sedimentation Kinetics and Force Transduction to the Cortical Endoplasmic Reticulum in Gravity-Sensing <i>Arabidopsis</i> Columella Cells. <i>Plant Cell</i> , 2009, 21, 843-860.	6.6	147
31	Tomographic Evidence for Continuous Turnover of Golgi Cisternae in <i>Pichia pastoris</i> . <i>Molecular Biology of the Cell</i> , 2003, 14, 2277-2291.	2.1	133
32	Identification and characterization of COPIa- and COPIb-type vesicle classes associated with plant and algal Golgi. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 163-168.	7.1	131
33	Amyloplast Sedimentation Dynamics in Maize Columella Cells Support a New Model for the Gravity-Sensing Apparatus of Roots. <i>Plant Physiology</i> , 2001, 125, 1045-1060.	4.8	130
34	<i>Caenorhabditis elegans</i> drp-1 and fis-2 Regulate Distinct Cell-Death Execution Pathways Downstream of ced-3 and Independent of ced-9. <i>Molecular Cell</i> , 2008, 31, 586-597.	9.7	128
35	Cytokinesis in flowering plants: more than one way to divide a cell. <i>Current Opinion in Plant Biology</i> , 2000, 3, 493-502.	7.1	127
36	Syncytial-Type Cell Plates: A Novel Kind of Cell Plate Involved in Endosperm Cellularization of <i>Arabidopsis</i> . <i>Plant Cell</i> , 2000, 12, 933-947.	6.6	124

#	ARTICLE	IF	CITATIONS
37	Cell cycle-dependent changes in Golgi stacks, vacuoles, clathrin-coated vesicles and multivesicular bodies in meristematic cells of <i>Arabidopsis thaliana</i> : A quantitative and spatial analysis. <i>Planta</i> , 2006, 223, 223-236.	3.2	118
38	Spatial relationship between microtubules and plasma-membrane rosettes during the deposition of primary wall microfibrils in <i>Closterium</i> sp.. <i>Planta</i> , 1988, 173, 22-30.	3.2	116
39	Xyloglucan sidechains modulate binding to cellulose during in vitro binding assays as predicted by conformational dynamics simulations. <i>Plant Journal</i> , 1997, 11, 373-386.	5.7	112
40	Electron tomographic analysis of post-meiotic cytokinesis during pollen development in <i>Arabidopsis thaliana</i> . <i>Planta</i> , 2004, 218, 501-515.	3.2	107
41	Dual-axis electron tomography: a new approach for investigating the spatial organization of wood cellulose microfibrils. <i>Wood Science and Technology</i> , 2007, 41, 101-116.	3.2	102
42	Isolation and Characterization of a New Minor Chlorophyll a/b-Protein Complex (CP24) from Spinach. <i>Plant Physiology</i> , 1986, 80, 429-434.	4.8	89
43	ER-to-Golgi transport by COPII vesicles in <i>Arabidopsis</i> involves a ribosome-excluding scaffold that is transferred with the vesicles to the Golgi matrix. <i>Protoplasma</i> , 2008, 234, 51-64.	2.1	88
44	Quantitative analysis of changes in spatial distribution and plus-end geometry of microtubules involved in plant-cell cytokinesis. <i>Journal of Cell Science</i> , 2005, 118, 3895-3903.	2.0	86
45	The Role of Carbohydrate in Maintaining Extensin in an Extended Conformation. <i>Plant Physiology</i> , 1986, 81, 242-246.	4.8	83
46	The cyclic nucleotide-gated calmodulin-binding channel AtCNGC10 localizes to the plasma membrane and influences numerous growth responses and starch accumulation in <i>Arabidopsis thaliana</i> . <i>Planta</i> , 2007, 225, 563-573.	3.2	81
47	A three-stage model of Golgi structure and function. <i>Histochemistry and Cell Biology</i> , 2013, 140, 239-249.	1.7	81
48	Cross-Linking Patterns in Salt-Extractable Extensin from Carrot Cell Walls. <i>Plant Physiology</i> , 1986, 81, 234-241.	4.8	79
49	Protein Storage Vacuoles Are Transformed into Lytic Vacuoles in Root Meristematic Cells of Germinating Seedlings by Multiple, Cell Type-Specific Mechanisms. <i>Plant Physiology</i> , 2011, 155, 2023-2035.	4.8	78
50	Antibody localization of extensin in cell walls of carrot storage roots. <i>Planta</i> , 1988, 174, 321-332.	3.2	77
51	Lateral Distribution of the Cytochrome b6/f and Coupling Factor ATP Synthetase Complexes of Chloroplast Thylakoid Membranes. <i>Plant Physiology</i> , 1985, 78, 199-202.	4.8	75
52	CC Golgi Cisternal Assembly and Biosynthetic Activation Occur Sequentially in Plants and Algae. <i>Traffic</i> , 2013, 14, 551-567.	2.7	75
53	Nodal Endoplasmic Reticulum, a Specialized Form of Endoplasmic Reticulum Found in Gravity-Sensing Root Tip Columella Cells. <i>Plant Physiology</i> , 2001, 125, 252-265.	4.8	73
54	The Mitochondrial Cycle of <i>Arabidopsis</i> Shoot Apical Meristem and Leaf Primordium Meristematic Cells Is Defined by a Perinuclear Tentaculate/Cage-Like Mitochondrion. <i>Plant Physiology</i> , 2008, 148, 1380-1393.	4.8	72

#	ARTICLE	IF	CITATIONS
55	Temperature and contamination dependent freeze-etch images of frozen water and glycerol solutions. Journal of Ultrastructure Research, 1971, 37, 146-168.	1.1	70
56	LUMENAL PLASMA MEMBRANE OF THE URINARY BLADDER. Journal of Cell Biology, 1972, 53, 92-104.	5.2	70
57	Isolation of Photosystem I Complexes from Octyl Glucoside/Sodium Dodecyl Sulfate Solubilized Spinach Thylakoids. Plant Physiology, 1985, 78, 606-613.	4.8	70
58	THE ULTRASTRUCTURE OF <i>SCENEDESMUS</i> (CHLOROPHYCEAE). II. CELL DIVISION AND COLONY FORMATION ¹ . Journal of Phycology, 1975, 11, 186-202.	2.3	66
59	Freeze-fracture observations on the plasma membrane, the cell wall and the cuticle of growing protonemata of <i>Adiantum capillus-veneris</i> L. Planta, 1981, 151, 462-468.	3.2	62
60	THE ULTRASTRUCTURE OF <i>SCENEDESMUS</i> (CHLOROPHYCEAE). I. SPECIES WITH THE "RETICULATE" OR "WARTY" TYPE OF ORNAMENTAL LAYER ¹ . Journal of Phycology, 1975, 11, 163-185.	2.3	61
61	Electron tomography of ER, Golgi and related membrane systems. Methods, 2006, 39, 154-162.	3.8	60
62	The cyclic nucleotide gated cation channel AtCNGC10 traffics from the ER via Golgi vesicles to the plasma membrane of Arabidopsis root and leaf cells. BMC Plant Biology, 2007, 7, 48.	3.6	58
63	Observation of microplasmodesmata in both heterocyst-forming and non-heterocyst forming filamentous cyanobacteria by freeze-fracture electron microscopy. Archives of Microbiology, 1981, 129, 295-298.	2.2	53
64	Mitochondrial reticulation in shoot apical meristem cells of Arabidopsis provides a mechanism for homogenization of mtDNA prior to gamete formation. Plant Signaling and Behavior, 2009, 4, 168-171.	2.4	53
65	Analysis of xanthophyll cycle carotenoids and chlorophyll fluorescence in light intensity-dependent chlorophyll-deficient mutants of wheat and barley. Photosynthesis Research, 1994, 42, 191-202.	2.9	52
66	Structure, Composition, Functional Organization and Dynamic Properties of Thylakoid Membranes. Advances in Photosynthesis and Respiration, 1996, , 11-30.	1.0	52
67	Correlation between persistent forms of zeaxanthin-dependent energy dissipation and thylakoid protein phosphorylation. Photosynthesis Research, 2001, 67, 63-78.	2.9	51
68	Compensatory Alterations in the Photochemical Apparatus of a Photoregulatory, Chlorophyll <i>b</i> -Deficient Mutant of Maize. Plant Physiology, 1988, 87, 365-370.	4.8	50
69	THE ULTRASTRUCTURE OF <i>SCENEDESMUS</i> (CHLOROPHYCEAE). II. CELL DIVISION AND COLONY FORMATION ¹ . Journal of Phycology, 1975, 11, 186-202.	2.3	49
70	Caffeine inhibits cell plate formation by disrupting membrane reorganization just after the vesicle fusion step. Protoplasma, 1996, 195, 144-155.	2.1	48
71	Protein Disulfide Isomerase-2 of Arabidopsis Mediates Protein Folding and Localizes to Both the Secretory Pathway and Nucleus, Where It Interacts with Maternal Effect Embryo Arrest Factor. Molecules and Cells, 2011, 32, 459-476.	2.6	47
72	Structure and regulation of tobacco extensin. Plant Journal, 1993, 4, 1011-1022.	5.7	46

#	ARTICLE	IF	CITATIONS
73	Fine structure of the chloroplast membranes of <i>Euglena gracilis</i> as revealed by freeze-cleaving and deep-etching techniques. <i>Protoplasma</i> , 1973, 77, 55-78.	2.1	45
74	Partial blocks in the early steps of the chlorophyll synthesis pathway: A common feature of chlorophyllb-deficient mutants. <i>Physiologia Plantarum</i> , 1996, 97, 311-320.	5.2	44
75	Modulation of statolith mass and grouping in white clover (<i>Trifolium repens</i>) grown in 1-g, microgravity and on the clinostat. <i>Plant Journal</i> , 1997, 12, 1361-1373.	5.7	44
76	Identification of type 1 and type 2 light-harvesting chlorophyll a/b-binding proteins using monospecific antibodies. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1992, 1098, 191-200.	1.0	39
77	Ethylene-induced chitinase and β -1,3-glucanase accumulate specifically in the lower epidermis and along vascular strands of bean leaves. <i>Planta</i> , 1992, 186, 367-75.	3.2	39
78	Thylakoid-Bound Polysomes and a Dynamin-Related Protein, FZL, Mediate Critical Stages of the Linear Chloroplast Biogenesis Program in Greening <i>Arabidopsis</i> Cotyledons. <i>Plant Cell</i> , 2018, 30, 1476-1495.	6.6	39
79	Does Gibberellic Acid Induce the Transfer of Lipase from Protein Bodies to Lipid Bodies in Barley Aleurone Cells?. <i>Plant Physiology</i> , 1987, 85, 487-496.	4.8	36
80	Correlation of structure and function of chloroplast membranes at the supramolecular level. <i>Journal of Cellular Biochemistry</i> , 1984, 24, 261-269.	2.6	35
81	Biochemical Characterization of Photosystem II Antenna Polypeptides in Grana and Stroma Membranes of Spinach. <i>Plant Physiology</i> , 1992, 100, 1517-1526.	4.8	35
82	Improved specimen support cups and auxiliary devices for the Balzers high pressure freezing apparatus. <i>Journal of Microscopy</i> , 1987, 148, 103-106.	1.8	34
83	Feinstruktur von Zellwand und Plasmamembran bei <i>Micrasterias denticulata</i> Brückner nach Gefrierfärbung. <i>Protoplasma</i> , 1972, 74, 227-237.	2.1	31
84	Immunogold Localization of the L3 Protein of Maize Lipid Bodies during Germination and Seedling Growth. <i>Plant Physiology</i> , 1988, 86, 270-274.	4.8	28
85	The Ejectisomes of the Flagellate <i>Chilomonas paramecium</i> : Visualization by Freeze-Fracture and Isolation Techniques. <i>Journal of Protozoology</i> , 1984, 31, 259-267.	0.8	27
86	Species-related differences in the electrophoretic behavior of CP 29 and CP 26: An immunochemical analysis. <i>Photosynthesis Research</i> , 1992, 34, 249-262.	2.9	27
87	Association of the 33 kDa extrinsic polypeptide (water-splitting) with PS II particles: immunochemical quantification of residual polypeptide after membrane extraction. <i>Photosynthesis Research</i> , 1987, 13, 69-80.	2.9	25
88	STRUCTURAL POLARITY IN THE CHARA RHIZOID: A REEVALUATION. <i>American Journal of Botany</i> , 1993, 80, 273-282.	1.7	23
89	Improved method for visualizing coated pits, microfilaments, and microtubules in cryofixed and freeze-substituted plant cells. <i>Journal of Electron Microscopy</i> , 2002, 51, 133-136.	0.9	21
90	Single microfilaments mediate the early steps of microtubule bundling during preprophase band formation in onion cotyledon epidermal cells. <i>Molecular Biology of the Cell</i> , 2016, 27, 1809-1820.	2.1	20

#	ARTICLE	IF	CITATIONS
91	A brief history of how microscopic studies led to the elucidation of the 3D architecture and macromolecular organization of higher plant thylakoids. <i>Photosynthesis Research</i> , 2020, 145, 237-258.	2.9	20
92	A new organelle related to osmoregulation in ultrarapidly frozen <i>Pelvetia</i> embryos. <i>Planta</i> , 1989, 178, 425-435.	3.2	18
93	Plant Cytokinesis – Insights Gained from Electron Tomography Studies. <i>Plant Cell Monographs</i> , 2007, , 251-287.	0.4	18
94	THE ULTRASTRUCTURE OF <i>SCENEDESMUS</i> (CHLOROPHYCEAE). I. SPECIES WITH THE “RETICULATE” OR “WARTY” TYPE OF ORNAMENTAL LAYER ¹ . <i>Journal of Phycology</i> , 1975, 11, 163-185.	2.3	17
95	Implications of cytochrome <i>b</i> 6/ <i>f</i> location for thylakoidal electron transport. <i>Journal of Bioenergetics and Biomembranes</i> , 1986, 18, 419-436.	2.3	16
96	Dynamic simulations of the molecular conformations of wild type and mutant xanthan polymers suggest that conformational differences may contribute to observed differences in viscosity. , 1998, 38, 251-272.		15
97	Immunolocalization of the CHL <i>a/b</i> -Light Harvesting Complex and CP29 under Conditions Favoring Phosphorylation and Dephosphorylation of Thylakoid Membranes (State 1- State 2 Transitions). , 1987, , 701-704.		15
98	Membrane adhesion in photosynthetic bacterial membranes. Light harvesting complex I (LHI) appears to be the main adhesion factor. <i>Archives of Microbiology</i> , 1985, 141, 290-296.	2.2	14
99	Electron tomographic characterization of a vacuolar reticulum and of six vesicle types that occupy different cytoplasmic domains in the apex of tip-growing <i>Chara</i> rhizoids. <i>Planta</i> , 2008, 227, 1101-1114.	3.2	14
100	A role of endocytosis in plant cytokinesis. <i>Communicative and Integrative Biology</i> , 2010, 3, 36-38.	1.4	14
101	A Second Extensin-Like Hydroxyproline-Rich Glycoprotein from Carrot Cell Walls. <i>Plant Physiology</i> , 1987, 84, 820-825.	4.8	13
102	Plasma membrane “Rosettes” in carrot and sycamore suspension culture cells. <i>Journal of Ultrastructure Research</i> , 1985, 93, 87-91.	1.1	11
103	Freeze-Fracture (-Etch) Electron Microscopy. , 1986, , 213-240.		11
104	3D electron tomographic and biochemical analysis of ER, Golgi and trans Golgi network membrane systems in stimulated Venus flytrap (<i>Dionaea muscipula</i>) glandular cells. <i>Journal of Biological Research</i> , 2018, 25, 15.	2.1	10
105	Structural Polarity in the <i>Chara</i> rhizoid: A Reevaluation. <i>American Journal of Botany</i> , 1993, 80, 273.	1.7	10
106	New methods for making chloroplast lipid liposomes and for reconstituting chlorophyll-protein complexes isolated from SDS polyacrylamide gels. <i>Photosynthesis Research</i> , 1984, 5, 293-296.	2.9	8
107	A rich and bountiful harvest: Key discoveries in plant cell biology. <i>Plant Cell</i> , 2022, 34, 53-71.	6.6	7
108	Evaluation of IgG molecules, Fab' fragments and IgG-chorseradish peroxidase conjugates as surface labels for freeze-etched membranes. <i>Journal of Microscopy</i> , 1979, 117, 363-373.	1.8	5

#	ARTICLE	IF	CITATIONS
109	Actin-Microtubule Interaction in Plants. , 0, , .		5
110	A new type of storage container for freeze-etch specimens. Journal of Microscopy, 1973, 99, 349-352.	1.8	4
111	C2-O-02Dimorphic secretory vesicles produced from the Golgi stacks of mucilage secreting root cap cells. Microscopy (Oxford, England), 2015, 64, i65.1-i65.	1.5	0