

Amy E Palmer

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

15,494
citations

117625

34
h-index

69250

77
g-index

94
all docs

94
docs citations

94
times ranked

22749
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved monomeric red, orange and yellow fluorescent proteins derived from <i>Discosoma</i> sp. red fluorescent protein. <i>Nature Biotechnology</i> , 2004, 22, 1567-1572.	17.5	4,135
2	A monomeric red fluorescent protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 7877-7882.	7.1	2,238
3	Fluorescent Sensors for Measuring Metal Ions in Living Systems. <i>Chemical Reviews</i> , 2014, 114, 4564-4601.	47.7	2,006
4	MICU1 encodes a mitochondrial EF hand protein required for Ca ²⁺ uptake. <i>Nature</i> , 2010, 467, 291-296.	27.8	747
5	Bcl-2-mediated alterations in endoplasmic reticulum Ca ²⁺ analyzed with an improved genetically encoded fluorescent sensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 17404-17409.	7.1	571
6	The Growing and Glowing Toolbox of Fluorescent and Photoactive Proteins. <i>Trends in Biochemical Sciences</i> , 2017, 42, 111-129.	7.5	514
7	Ca ²⁺ Indicators Based on Computationally Redesigned Calmodulin-Peptide Pairs. <i>Chemistry and Biology</i> , 2006, 13, 521-530.	6.0	455
8	Measuring calcium signaling using genetically targetable fluorescent indicators. <i>Nature Protocols</i> , 2006, 1, 1057-1065.	12.0	426
9	Advances in fluorescence labeling strategies for dynamic cellular imaging. <i>Nature Chemical Biology</i> , 2014, 10, 512-523.	8.0	412
10	A Critical and Comparative Review of Fluorescent Tools for Live-Cell Imaging. <i>Annual Review of Physiology</i> , 2017, 79, 93-117.	13.1	336
11	Measuring steady-state and dynamic endoplasmic reticulum and Golgi Zn ²⁺ with genetically encoded sensors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 7351-7356.	7.1	271
12	Design and application of genetically encoded biosensors. <i>Trends in Biotechnology</i> , 2011, 29, 144-152.	9.3	213
13	Fluorescent biosensors of protein function. <i>Current Opinion in Chemical Biology</i> , 2008, 12, 60-65.	6.1	196
14	Genetically Encoded Sensors to Elucidate Spatial Distribution of Cellular Zinc. <i>Journal of Biological Chemistry</i> , 2009, 284, 16289-16297.	3.4	188
15	Single-spike detection in vitro and in vivo with a genetic Ca ²⁺ sensor. <i>Nature Methods</i> , 2008, 5, 797-804.	19.0	180
16	Imaging type-III secretion reveals dynamics and spatial segregation of <i>Salmonella</i> effectors. <i>Nature Methods</i> , 2010, 7, 325-330.	19.0	144
17	Genetically encoded biosensors for visualizing live-cell biochemical activity at super-resolution. <i>Nature Methods</i> , 2017, 14, 427-434.	19.0	138
18	Visualizing metal ions in cells: An overview of analytical techniques, approaches, and probes. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2012, 1823, 1406-1415.	4.1	125

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19	Atypical mitochondrial fission upon bacterial infection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 16003-16008.	7.1	118
20	Capzimin is a potent and specific inhibitor of proteasome isopeptidase Rpn11. <i>Nature Chemical Biology</i> , 2017, 13, 486-493.	8.0	117
21	A multicolor riboswitch-based platform for imaging of RNA in live mammalian cells. <i>Nature Chemical Biology</i> , 2018, 14, 964-971.	8.0	114
22	Measuring calcium dynamics in living cells with genetically encodable calcium indicators. <i>Methods</i> , 2008, 46, 152-159.	3.8	113
23	Bcl-1 Regulates Endoplasmic Reticulum Ca ²⁺ Homeostasis Downstream of Bcl-2 Family Proteins. <i>Journal of Biological Chemistry</i> , 2008, 283, 11477-11484.	3.4	98
24	Promotion of vesicular zinc efflux by ZIP13 and its implications for spondylocheiro dysplastic Ehlers-Danlos syndrome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E3530-8.	7.1	98
25	Thiolutin is a zinc chelator that inhibits the Rpn11 and other JAMM metalloproteases. <i>Nature Chemical Biology</i> , 2017, 13, 709-714.	8.0	95
26	New Sensors for Quantitative Measurement of Mitochondrial Zn ²⁺ . <i>ACS Chemical Biology</i> , 2012, 7, 1636-1640.	3.4	92
27	Distinct mechanisms regulating mechanical force-induced Ca ²⁺ signals at the plasma membrane and the ER in human MSCs. <i>ELife</i> , 2015, 4, e04876.	6.0	90
28	Direct Comparison of a Genetically Encoded Sensor and Small Molecule Indicator: Implications for Quantification of Cytosolic Zn ²⁺ . <i>ACS Chemical Biology</i> , 2013, 8, 2366-2371.	3.4	80
29	Recent Advances in Development of Genetically Encoded Fluorescent Sensors. <i>Methods in Enzymology</i> , 2017, 589, 1-49.	1.0	79
30	New Alternately Colored FRET Sensors for Simultaneous Monitoring of Zn ²⁺ in Multiple Cellular Locations. <i>PLoS ONE</i> , 2012, 7, e49371.	2.5	77
31	Analysis of Red-Fluorescent Proteins Provides Insight into Dark-State Conversion and Photodegradation. <i>Biophysical Journal</i> , 2011, 101, 961-969.	0.5	73
32	Illuminating RNA Biology: Tools for Imaging RNA in Live Mammalian Cells. <i>Cell Chemical Biology</i> , 2020, 27, 891-903.	5.2	62
33	Quantification of Real-Time Salmonella Effector Type III Secretion Kinetics Reveals Differential Secretion Rates for SopE2 and SptP. <i>Chemistry and Biology</i> , 2008, 15, 619-628.	6.0	59
34	Discovery of a ZIP7 inhibitor from a Notch pathway screen. <i>Nature Chemical Biology</i> , 2019, 15, 179-188.	8.0	46
35	Droplet Microfluidic Flow Cytometer For Sorting On Transient Cellular Responses Of Genetically-Encoded Sensors. <i>Analytical Chemistry</i> , 2017, 89, 711-719.	6.5	41
36	Intracellular Zn ²⁺ transients modulate global gene expression in dissociated rat hippocampal neurons. <i>Scientific Reports</i> , 2019, 9, 9411.	3.3	41

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37	Tools and techniques for illuminating the cell biology of zinc. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, 1868, 118865.	4.1	39
38	Single cell analysis reveals multiple requirements for zinc in the mammalian cell cycle. <i>ELife</i> , 2020, 9, .	6.0	37
39	Development of an Optical Zn ²⁺ Probe Based on a Single Fluorescent Protein. <i>ACS Chemical Biology</i> , 2016, 11, 2744-2751.	3.4	36
40	Differential Effects of Procaspase-3 Activating Compounds in the Induction of Cancer Cell Death. <i>Molecular Pharmaceutics</i> , 2012, 9, 1425-1434.	4.6	34
41	Techniques for measuring cellular zinc. <i>Archives of Biochemistry and Biophysics</i> , 2016, 611, 20-29.	3.0	33
42	High-Speed Multiparameter Photophysical Analyses of Fluorophore Libraries. <i>Analytical Chemistry</i> , 2015, 87, 5026-5030.	6.5	30
43	Long-term live-cell imaging reveals new roles for <i>Salmonella</i> effector proteins SseG and SteA. <i>Cellular Microbiology</i> , 2017, 19, e12641.	2.1	29
44	Using a genetically targeted sensor to investigate the role of presenilin-1 in ER Ca ²⁺ levels and dynamics. <i>Molecular BioSystems</i> , 2010, 6, 1640.	2.9	28
45	Critical Comparison of FRET-Sensor Functionality in the Cytosol and Endoplasmic Reticulum and Implications for Quantification of Ions. <i>Analytical Chemistry</i> , 2017, 89, 9601-9608.	6.5	26
46	Microfluidic Flow Cytometer for Quantifying Photobleaching of Fluorescent Proteins in Cells. <i>Analytical Chemistry</i> , 2012, 84, 3929-3937.	6.5	25
47	Microfluidics-based selection of red-fluorescent proteins with decreased rates of photobleaching. <i>Integrative Biology (United Kingdom)</i> , 2015, 7, 263-273.	1.3	25
48	Zn ²⁺ influx activates ERK and Akt signaling pathways. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	24
49	Quantitative Measurement of Ca ²⁺ and Zn ²⁺ in Mammalian Cells Using Genetically Encoded Fluorescent Biosensors. <i>Methods in Molecular Biology</i> , 2014, 1071, 29-47.	0.9	23
50	Zinc transporters belonging to the Cation Diffusion Facilitator (CDF) family have complementary roles in transporting zinc out of the cytosol. <i>PLoS Genetics</i> , 2018, 14, e1007262.	3.5	23
51	Microfluidic cell sorter for use in developing red fluorescent proteins with improved photostability. <i>Lab on A Chip</i> , 2013, 13, 2320.	6.0	22
52	Directed evolution of excited state lifetime and brightness in FusionRed using a microfluidic sorter. <i>Integrative Biology (United Kingdom)</i> , 2018, 10, 516-526.	1.3	22
53	Superiority of SpiroZin2 Versus FluoZin-3 for monitoring vesicular Zn ²⁺ allows tracking of lysosomal Zn ²⁺ pools. <i>Scientific Reports</i> , 2018, 8, 15034.	3.3	21
54	FACS-Based Selection of Tandem Tetracysteine Peptides with Improved ReAsH Brightness in Live Cells. <i>ChemBioChem</i> , 2010, 11, 489-493.	2.6	20

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55	High-Throughput Examination of Fluorescence Resonance Energy Transfer-Detected Metal-Ion Response in Mammalian Cells. <i>Journal of the American Chemical Society</i> , 2012, 134, 2488-2491.	13.7	19
56	Optimized Fluorescence Complementation Platform for Visualizing <i>Salmonella</i> Effector Proteins Reveals Distinctly Different Intracellular Niches in Different Cell Types. <i>ACS Infectious Diseases</i> , 2017, 3, 575-584.	3.8	19
57	Dissociated Hippocampal Neurons Exhibit Distinct Zn ²⁺ Dynamics in a Stimulation-Method-Dependent Manner. <i>ACS Chemical Neuroscience</i> , 2020, 11, 508-514.	3.5	19
58	Directed Evolution of a Bright Variant of mCherry: Suppression of Nonradiative Decay by Fluorescence Lifetime Selections. <i>Journal of Physical Chemistry B</i> , 2022, 126, 4659-4668.	2.6	19
59	Expanding the Repertoire of Fluorescent Calcium Sensors. <i>ACS Chemical Biology</i> , 2009, 4, 157-159.	3.4	16
60	Ionic osmolytes and intracellular calcium regulate tissue production in chondrocytes cultured in a 3D charged hydrogel. <i>Matrix Biology</i> , 2014, 40, 17-26.	3.6	15
61	Engineering of a Brighter Variant of the FusionRed Fluorescent Protein Using Lifetime Flow Cytometry and Structure-Guided Mutations. <i>Biochemistry</i> , 2020, 59, 3669-3682.	2.5	15
62	A Multicolor Split-Fluorescent Protein Approach to Visualize <i>Listeria</i> Protein Secretion in Infection. <i>Biophysical Journal</i> , 2018, 115, 251-262.	0.5	11
63	Measuring the In Situ K _d of a Genetically Encoded Ca ²⁺ -Sensor. <i>Cold Spring Harbor Protocols</i> , 2015, 2015, pdb.prot076554.	0.3	10
64	Properties and Use of Genetically Encoded FRET Sensors for Cytosolic and Organellar Ca ²⁺ Measurements. <i>Cold Spring Harbor Protocols</i> , 2015, 2015, pdb.top066043.	0.3	7
65	Methods to Illuminate the Role of <i>Salmonella</i> Effector Proteins during Infection: A Review. <i>Frontiers in Cellular and Infection Microbiology</i> , 2017, 7, 363.	3.9	7
66	Native and engineered sensors for Ca ²⁺ and Zn ²⁺ : lessons from calmodulin and MTF1. <i>Essays in Biochemistry</i> , 2017, 61, 237-243.	4.7	7
67	Remodeling of Zn ²⁺ -homeostasis upon differentiation of mammary epithelial cells. <i>Metallomics</i> , 2020, 12, 346-362.	2.4	7
68	Verifying the Function and Localization of Genetically Encoded Ca ²⁺ -Sensors and Converting FRET Ratios to Ca ²⁺ -Concentrations. <i>Cold Spring Harbor Protocols</i> , 2015, 2015, pdb.prot076547.	0.3	6
69	A multicolor riboswitch-based platform for imaging of RNA in live mammalian cells. <i>Methods in Enzymology</i> , 2020, 641, 343-372.	1.0	6
70	Systematic Comparison of Vesicular Targeting Signals Leads to the Development of Genetically Encoded Vesicular Fluorescent Zn ²⁺ and pH Sensors. <i>ACS Sensors</i> , 2020, 5, 3879-3891.	7.8	5
71	Intramolecular Fluorescent Protein Association in a Class of Zinc FRET Sensors Leads to Increased Dynamic Range. <i>Journal of Physical Chemistry B</i> , 2019, 123, 3079-3085.	2.6	3
72	Stage-specific differential expression of zinc transporter SLC30A and SLC39A family proteins during prostate tumorigenesis. <i>Molecular Carcinogenesis</i> , 2022, 61, 454-471.	2.7	3

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73	SNAP-Shots of Hydrogen Peroxide in Cells. Chemistry and Biology, 2010, 17, 318-319.	6.0	2
74	Unraveling the mystery of the ring: Tracking heme dynamics in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7296-7297.	7.1	2
75	Characterization of Global Gene Expression, Regulation of Metal Ions, and Infection Outcomes in Immune-Competent 129S6 Mouse Macrophages. Infection and Immunity, 2021, 89, e0027321.	2.2	2
76	Roger Y. Tsien 1952–2016. Nature Chemical Biology, 2016, 12, 887-887.	8.0	1
77	Editorial overview: Molecular imaging. Current Opinion in Chemical Biology, 2020, 57, A5-A7.	6.1	1
78	Genetically encoded sensors for calcium and zinc. , 2008, , .		0
79	Zinc differently. Nature Chemistry, 2015, 7, 96-97.	13.6	0
80	Exploring the intersection of cellular zinc and kinase activity with single cell imaging. FASEB Journal, 2018, 32, lb129.	0.5	0
81	Discovery of new roles for zinc in biology from quantitative mapping of zinc in mammalian cells. FASEB Journal, 2018, 32, 477.4.	0.5	0