Amy E Palmer

List of Publications by Year
in descending order

81 papers	15,494 citations	134610 34 h-index	78623 77 g-index
94 all docs	94 docs citations	94 times ranked	25524 citing authors

#	Article	IF	Citations
1	Improved monomeric red, orange and yellow fluorescent proteins derived from Discosoma sp. red fluorescent protein. Nature Biotechnology, 2004, 22, 1567-1572.	9.4	4,135
2	A monomeric red fluorescent protein. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 7877-7882.	3.3	2,238
3	Fluorescent Sensors for Measuring Metal Ions in Living Systems. Chemical Reviews, 2014, 114, 4564-4601.	23.0	2,006
4	MICU1 encodes a mitochondrial EF hand protein required for Ca2+ uptake. Nature, 2010, 467, 291-296.	13.7	747
5	Bcl-2-mediated alterations in endoplasmic reticulum Ca2+ analyzed with an improved genetically encoded fluorescent sensor. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17404-17409.	3.3	571
6	The Growing and Glowing Toolbox of Fluorescent and Photoactive Proteins. Trends in Biochemical Sciences, 2017, 42, 111-129.	3.7	514
7	Ca2+ Indicators Based on Computationally Redesigned Calmodulin-Peptide Pairs. Chemistry and Biology, 2006, 13, 521-530.	6.2	455
8	Measuring calcium signaling using genetically targetable fluorescent indicators. Nature Protocols, 2006, 1, 1057-1065.	5.5	426
9	Advances in fluorescence labeling strategies for dynamic cellular imaging. Nature Chemical Biology, 2014, 10, 512-523.	3.9	412
10	A Critical and Comparative Review of Fluorescent Tools for Live-Cell Imaging. Annual Review of Physiology, 2017, 79, 93-117.	5.6	336
11	Measuring steady-state and dynamic endoplasmic reticulum and Golgi Zn ²⁺ with genetically encoded sensors. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7351-7356.	3.3	271
12	Design and application of genetically encoded biosensors. Trends in Biotechnology, 2011, 29, 144-152.	4.9	213
13	Fluorescent biosensors of protein function. Current Opinion in Chemical Biology, 2008, 12, 60-65.	2.8	196
14	Genetically Encoded Sensors to Elucidate Spatial Distribution of Cellular Zinc. Journal of Biological Chemistry, 2009, 284, 16289-16297.	1.6	188
15	Single-spike detection in vitro and in vivo with a genetic Ca2+ sensor. Nature Methods, 2008, 5, 797-804.	9.0	180
16	Imaging type-III secretion reveals dynamics and spatial segregation of Salmonella effectors. Nature Methods, 2010, 7, 325-330.	9.0	144
17	Genetically encoded biosensors for visualizing live-cell biochemical activity at super-resolution. Nature Methods, 2017, 14, 427-434.	9.0	138
18	Visualizing metal ions in cells: An overview of analytical techniques, approaches, and probes. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 1406-1415.	1.9	125

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19	Atypical mitochondrial fission upon bacterial infection. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16003-16008.	3.3	118
20	Capzimin is a potent and specific inhibitor of proteasome isopeptidase Rpn11. Nature Chemical Biology, 2017, 13, 486-493.	3.9	117
21	A multicolor riboswitch-based platform for imaging of RNA in live mammalian cells. Nature Chemical Biology, 2018, 14, 964-971.	3.9	114
22	Measuring calcium dynamics in living cells with genetically encodable calcium indicators. Methods, 2008, 46, 152-159.	1.9	113
23	BI-1 Regulates Endoplasmic Reticulum Ca2+ Homeostasis Downstream of Bcl-2 Family Proteins. Journal of Biological Chemistry, 2008, 283, 11477-11484.	1.6	98
24	Promotion of vesicular zinc efflux by ZIP13 and its implications for spondylocheiro dysplastic Ehlersâ€“Danlos syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3530-8.	3.3	98
25	Thiolutin is a zinc chelator that inhibits the Rpn11 and other JAMM metalloproteases. Nature Chemical Biology, 2017, 13, 709-714.	3.9	95
26	New Sensors for Quantitative Measurement of Mitochondrial Zn²⁺. ACS Chemical Biology, 2012, 7, 1636-1640.	1.6	92
27	Distinct mechanisms regulating mechanical force-induced Ca2+ signals at the plasma membrane and the ER in human MSCs. ELife, 2015, 4, e04876.	2.8	90
28	Direct Comparison of a Genetically Encoded Sensor and Small Molecule Indicator: Implications for Quantification of Cytosolic Zn²⁺. ACS Chemical Biology, 2013, 8, 2366-2371.	1.6	80
29	Recent Advances in Development of Genetically Encoded Fluorescent Sensors. Methods in Enzymology, 2017, 589, 1-49.	0.4	79
30	New Alternately Colored FRET Sensors for Simultaneous Monitoring of Zn2+ in Multiple Cellular Locations. PLoS ONE, 2012, 7, e49371.	1.1	77
31	Analysis of Red-Fluorescent Proteins Provides Insight into Dark-State Conversion and Photodegradation. Biophysical Journal, 2011, 101, 961-969.	0.2	73
32	Illuminating RNA Biology: Tools for Imaging RNA in Live Mammalian Cells. Cell Chemical Biology, 2020, 27, 891-903.	2.5	62
33	Quantification of Real-Time Salmonella Effector Type III Secretion Kinetics Reveals Differential Secretion Rates for SopE2 and SptP. Chemistry and Biology, 2008, 15, 619-628.	6.2	59
34	Discovery of a ZIP7 inhibitor from a Notch pathway screen. Nature Chemical Biology, 2019, 15, 179-188.	3.9	46
35	Droplet Microfluidic Flow Cytometer For Sorting On Transient Cellular Responses Of Genetically-Encoded Sensors. Analytical Chemistry, 2017, 89, 711-719.	3.2	41
36	Intracellular Zn2+ transients modulate global gene expression in dissociated rat hippocampal neurons. Scientific Reports, 2019, 9, 9411.	1.6	41

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37	Tools and techniques for illuminating the cell biology of zinc. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 118865.	1.9	39
38	Single cell analysis reveals multiple requirements for zinc in the mammalian cell cycle. ELife, 2020, 9, .	2.8	37
39	Development of an Optical Zn²⁺ Probe Based on a Single Fluorescent Protein. ACS Chemical Biology, 2016, 11, 2744-2751.	1.6	36
40	Differential Effects of Procaspase-3 Activating Compounds in the Induction of Cancer Cell Death. Molecular Pharmaceutics, 2012, 9, 1425-1434.	2.3	34
41	Techniques for measuring cellular zinc. Archives of Biochemistry and Biophysics, 2016, 611, 20-29.	1.4	33
42	High-Speed Multiparameter Photophysical Analyses of Fluorophore Libraries. Analytical Chemistry, 2015, 87, 5026-5030.	3.2	30
43	Long-term live-cell imaging reveals new roles forSalmonellaeffector proteins SseG and SteA. Cellular Microbiology, 2017, 19, e12641.	1.1	29
44	Using a genetically targeted sensor to investigate the role of presenilin-1 in ER Ca2+ levels and dynamics. Molecular BioSystems, 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. Analytical Chemistry, 2017, 89, 9601-9608.	3.2	26
46	Microfluidic Flow Cytometer for Quantifying Photobleaching of Fluorescent Proteins in Cells. Analytical Chemistry, 2012, 84, 3929-3937.	3.2	25
47	Microfluidics-based selection of red-fluorescent proteins with decreased rates of photobleaching. Integrative Biology (United Kingdom), 2015, 7, 263-273.	0.6	25
48	Zn ²⁺ influx activates ERK and Akt signaling pathways. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	24
49	Quantitative Measurement of Ca2+ and Zn2+ in Mammalian Cells Using Genetically Encoded Fluorescent Biosensors. Methods in Molecular Biology, 2014, 1071, 29-47.	0.4	23
50	Zinc transporters belonging to the Cation Diffusion Facilitator (CDF) family have complementary roles in transporting zinc out of the cytosol. PLoS Genetics, 2018, 14, e1007262.	1.5	23
51	Microfluidic cell sorter for use in developing red fluorescent proteins with improved photostability. Lab on A Chip, 2013, 13, 2320.	3.1	22
52	Directed evolution of excited state lifetime and brightness in FusionRed using a microfluidic sorter. Integrative Biology (United Kingdom), 2018, 10, 516-526.	0.6	22
53	Superiority of SpiroZin2 Versus FluoZin-3 for monitoring vesicular Zn2+ allows tracking of lysosomal Zn2+ pools. Scientific Reports, 2018, 8, 15034.	1.6	21
54	FACSâ€Based Selection of Tandem Tetracysteine Peptides with Improved ReAsH Brightness in Live Cells. ChemBioChem, 2010, 11, 489-493.	1.3	20

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55	High-Throughput Examination of Fluorescence Resonance Energy Transfer-Detected Metal-Ion Response in Mammalian Cells. Journal of the American Chemical Society, 2012, 134, 2488-2491.	6.6	19
56	Optimized Fluorescence Complementation Platform for Visualizing <i>Salmonella</i> Effector Proteins Reveals Distinctly Different Intracellular Niches in Different Cell Types. ACS Infectious Diseases, 2017, 3, 575-584.	1.8	19
57	Dissociated Hippocampal Neurons Exhibit Distinct Zn²⁺ Dynamics in a Stimulation-Method-Dependent Manner. ACS Chemical Neuroscience, 2020, 11, 508-514.	1.7	19
58	Directed Evolution of a Bright Variant of mCherry: Suppression of Nonradiative Decay by Fluorescence Lifetime Selections. Journal of Physical Chemistry B, 2022, 126, 4659-4668.	1.2	19
59	Expanding the Repertoire of Fluorescent Calcium Sensors. ACS Chemical Biology, 2009, 4, 157-159.	1.6	16
60	Ionic osmolytes and intracellular calcium regulate tissue production in chondrocytes cultured in a 3D charged hydrogel. Matrix Biology, 2014, 40, 17-26.	1.5	15
61	Engineering of a Brighter Variant of the FusionRed Fluorescent Protein Using Lifetime Flow Cytometry and Structure-Guided Mutations. Biochemistry, 2020, 59, 3669-3682.	1.2	15
62	A Multicolor Split-Fluorescent Protein Approach to Visualize Listeria Protein Secretion in Infection. Biophysical Journal, 2018, 115, 251-262.	0.2	11
63	Measuring the In SituKdof a Genetically Encoded Ca2+Sensor. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot076554.	0.2	10
64	Properties and Use of Genetically Encoded FRET Sensors for Cytosolic and Organellar Ca²⁺ Measurements. Cold Spring Harbor Protocols, 2015, 2015, pdb.top066043.	0.2	7
65	Methods to Illuminate the Role of Salmonella Effector Proteins during Infection: A Review. Frontiers in Cellular and Infection Microbiology, 2017, 7, 363.	1.8	7
66	Native and engineered sensors for Ca2+ and Zn2+: lessons from calmodulin and MTF1. Essays in Biochemistry, 2017, 61, 237-243.	2.1	7
67	Remodeling of Zn2+homeostasis upon differentiation of mammary epithelial cells. Metallomics, 2020, 12, 346-362.	1.0	7
68	Verifying the Function and Localization of Genetically Encoded Ca2+Sensors and Converting FRET Ratios to Ca2+Concentrations. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot076547.	0.2	6
69	A multicolor riboswitch-based platform for imaging of RNA in live mammalian cells. Methods in Enzymology, 2020, 641, 343-372.	0.4	6
70	Systematic Comparison of Vesicular Targeting Signals Leads to the Development of Genetically Encoded Vesicular Fluorescent Zn²⁺ and pH Sensors. ACS Sensors, 2020, 5, 3879-3891.	4.0	5
71	Intramolecular Fluorescent Protein Association in a Class of Zinc FRET Sensors Leads to Increased Dynamic Range. Journal of Physical Chemistry B, 2019, 123, 3079-3085.	1.2	3
72	Stageâ€specific differential expression of zinc transporter SLC30A and SLC39A family proteins during prostate tumorigenesis. Molecular Carcinogenesis, 2022, 61, 454-471.	1.3	3

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73	SNAP-Shots of Hydrogen Peroxide in Cells. Chemistry and Biology, 2010, 17, 318-319.	6.2	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.	3.3	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.	1.0	2
76	Roger Y. Tsien 1952â€"2016. Nature Chemical Biology, 2016, 12, 887-887.	3.9	1
77	Editorial overview: Molecular imaging. Current Opinion in Chemical Biology, 2020, 57, A5-A7.	2.8	1
78	Genetically encoded sensors for calcium and zinc. , 2008, , .		0
79	Zinc differently. Nature Chemistry, 2015, 7, 96-97.	6.6	0
80	Exploring the intersection of cellular zinc and kinase activity with single cell imaging. FASEB Journal, 2018, 32, lb129.	0.2	0
81	Discovery of new roles for zinc in biology from quantitative mapping of zinc in mammalian cells. FASEB Journal, 2018, 32, 477.4.	0.2	0