Jason W Chin

List of Publications by Year
in descending order

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120	17,169	13865	20358
papers	citations	67 h-index	116 g-index

129	129	129	11669
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cryptochrome proteins regulate the circadian intracellular behavior and localization of PER2 in mouse suprachiasmatic nucleus neurons. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	20
2	Mechanism-based traps enable protease and hydrolase substrate discovery. Nature, 2022, 602, 701-707.	27.8	25
3	Discovery and Genetic Code Expansion of a Polyethylene Terephthalate (PET) Hydrolase from the Human Saliva Metagenome for the Degradation and Bioâ€Functionalization of PET. Angewandte Chemie - International Edition, 2022, 61, .	13.8	24
4	Reprogramming the genetic code. Nature Reviews Genetics, 2021, 22, 169-184.	16.3	147
5	Selective CRAF Inhibition Elicits Transactivation. Journal of the American Chemical Society, 2021, 143, 4600-4606.	13.7	15
6	Creating custom synthetic genomes in Escherichia coli with REXER and GENESIS. Nature Protocols, 2021, 16, 2345-2380.	12.0	11
7	Sense codon reassignment enables viral resistance and encoded polymer synthesis. Science, 2021, 372, 1057-1062.	12.6	90
8	A 68-codon genetic code to incorporate four distinct non-canonical amino acids enabled by automated orthogonal mRNA design. Nature Chemistry, 2021, 13, 1110-1117.	13.6	38
9	Precise optical control of gene expression in C elegans using improved genetic code expansion and Cre recombinase. ELife, 2021, 10, .	6.0	11
10	Cryo-EM structure of MukBEF reveals DNA loop entrapment at chromosomal unloading sites. Molecular Cell, 2021, 81, 4891-4906.e8.	9.7	49
11	Engineered triply orthogonal pyrrolysylâ€“tRNA synthetase/tRNA pairs enable the genetic encoding of three distinct non-canonical amino acids. Nature Chemistry, 2020, 12, 535-544.	13.6	93
12	Alcohol-derived DNA crosslinks are repaired by two distinct mechanisms. Nature, 2020, 579, 603-608.	27.8	82
13	Rapid discovery and evolution of orthogonal aminoacyl-tRNA synthetaseâ€“tRNA pairs. Nature Biotechnology, 2020, 38, 989-999.	17.5	67
14	Frontispiece: Efficient Phage Display with Multiple Distinct Non-Canonical Amino Acids Using Orthogonal Ribosome-Mediated Genetic Code Expansion. Angewandte Chemie - International Edition, 2019, 58, .	13.8	0
15	Programmed chromosome fission and fusion enable precise large-scale genome rearrangement and assembly. Science, 2019, 365, 922-926.	12.6	36
16	Efficient Phage Display with Multiple Distinct Nonâ€Canonical Amino Acids Using Orthogonal Ribosomeâ€Mediated Genetic Code Expansion. Angewandte Chemie, 2019, 131, 10960-10964.	2.0	4
17	Efficient Phage Display with Multiple Distinct Nonâ€Canonical Amino Acids Using Orthogonal Ribosomeâ€Mediated Genetic Code Expansion. Angewandte Chemie - International Edition, 2019, 58, 10844-10848.	13.8	41
18	Total synthesis of Escherichia coli with a recoded genome. Nature, 2019, 569, 514-518.	27.8	346

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19	Frontispiz: Efficient Phage Display with Multiple Distinct Nonâ€Canonical Amino Acids Using Orthogonal Ribosomeâ€Mediated Genetic Code Expansion. Angewandte Chemie, 2019, 131, .	2.0	0
20	Trapping biosynthetic acyl-enzyme intermediates with encoded 2,3-diaminopropionic acid. Nature, 2019, 565, 112-117.	27.8	78
21	An Evolved Methanomethylophilus alvus Pyrrolysyl-tRNA Synthetase/tRNA Pair Is Highly Active and Orthogonal in Mammalian Cells. Biochemistry, 2019, 58, 387-390.	2.5	50
22	Rapid and Efficient Generation of Stable Antibodyâ€“Drug Conjugates via an Encoded Cyclopropene and an Inverseâ€Electronâ€Demand Dielsâ€“Alder Reaction. Angewandte Chemie, 2018, 130, 2881-2884.	2.0	19
23	Detecting RNA base methylations in single cells by in situ hybridization. Nature Communications, 2018, 9, 655.	12.8	28
24	Toward an orthogonal central dogma. Nature Chemical Biology, 2018, 14, 103-106.	8.0	119
25	Rapid and Efficient Generation of Stable Antibodyâ€“Drug Conjugates via an Encoded Cyclopropene and an Inverseâ€Electronâ€Demand Dielsâ€“Alder Reaction. Angewandte Chemie - International Edition, 2018, 57, 2831-2834.	13.8	80
26	Labeling and identifying cell-specific proteomes in the mouse brain. Nature Biotechnology, 2018, 36, 156-159.	17.5	73
27	Mitotic spindle association of TACC3 requires Auroraâ€Aâ€dependent stabilization of a cryptic Î±â€helix. EMBO Journal, 2018, 37, .	7.8	55
28	Translational switching of Cry1 protein expression confers reversible control of circadian behavior in arrhythmic Cry-deficient mice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12388-E12397.	7.1	31
29	Controlling orthogonal ribosome subunit interactions enables evolution of new function. Nature, 2018, 564, 444-448.	27.8	79
30	A conformational sensor based on genetic code expansion reveals an autocatalytic component in EGFR activation. Nature Communications, 2018, 9, 3847.	12.8	29
31	Mutually orthogonal pyrrolysyl-tRNA synthetase/tRNA pairs. Nature Chemistry, 2018, 10, 831-837.	13.6	129
32	Genetically Encoded Protein Phosphorylation in Mammalian Cells. Cell Chemical Biology, 2018, 25, 1067-1074.e5.	5.2	47
33	Intracellular antibody signalling is regulated by phosphorylation of the Fc receptor TRIM21. ELife, 2018, 7, .	6.0	57
34	Mitotic phosphorylation regulates Hsp72 spindle localization by uncoupling ATP binding from substrate release. Science Signaling, 2018, 11, .	3.6	8
35	Biosynthesis and genetic encoding of phosphothreonine through parallel selection and deep sequencing. Nature Methods, 2017, 14, 729-736.	19.0	109
36	Protein modification via alkyne hydrosilylation using a substoichiometric amount of ruthenium(<scp>ii</scp>) catalyst. Chemical Science, 2017, 8, 3871-3878.	7.4	18

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37	Conformational transition of FGFR kinase activation revealed by site-specific unnatural amino acid reporter and single molecule FRET. Scientific Reports, 2017, 7, 39841.	3.3	6
38	Expanding and reprogramming the genetic code. Nature, 2017, 550, 53-60.	27.8	579
39	Computationally guided discovery of a reactive, hydrophilic trans-5-oxocene dienophile for bioorthogonal labeling. Organic and Biomolecular Chemistry, 2017, 15, 6640-6644.	2.8	37
40	Encoding optical control in LCK kinase to quantitatively investigate its activity in live cells. Nature Structural and Molecular Biology, 2017, 24, 1155-1163.	8.2	49
41	Synthesis of Isomeric Phosphoubiquitin Chains Reveals that Phosphorylation Controls Deubiquitinase Activity and Specificity. Cell Reports, 2016, 16, 1180-1193.	6.4	52
42	Genetic code expansion in the mouse brain. Nature Chemical Biology, 2016, 12, 776-778.	8.0	107
43	Tagging and Enriching Proteins Enables Cell-Specific Proteomics. Cell Chemical Biology, 2016, 23, 805-815.	5.2	42
44	Defining synonymous codon compression schemes by genome recoding. Nature, 2016, 539, 59-64.	27.8	133
45	Photoactivation of Mutant Isocitrate Dehydrogenase 2 Reveals Rapid Cancer-Associated Metabolic and Epigenetic Changes. Journal of the American Chemical Society, 2016, 138, 718-721.	13.7	39
46	Genetic code expansion in stable cell lines enables encoded chromatin modification. Nature Methods, 2016, 13, 158-164.	19.0	133
47	Structural and Mechanistic Insights into the Regulation of the Fundamental Rho Regulator RhoGDIÎ± by Lysine Acetylation. Journal of Biological Chemistry, 2016, 291, 5484-5499.	3.4	45
48	Ribosome Subunit Stapling for Orthogonal Translation in E.â€¦coli. Angewandte Chemie, 2015, 127, 12982-12985.	2.0	20
49	Efficient genetic encoding of phosphoserine and its nonhydrolyzable analog. Nature Chemical Biology, 2015, 11, 496-503.	8.0	189
50	Selective, rapid and optically switchable regulation of protein function in live mammalian cells. Nature Chemistry, 2015, 7, 554-561.	13.6	136
51	Ubiquitin C-terminal hydrolases cleave isopeptide- and peptide-linked ubiquitin from structured proteins but do not edit ubiquitin homopolymers. Biochemical Journal, 2015, 466, 489-498.	3.7	38
52	Ubiquitination of the Dishevelled DIX domain blocks its head-to-tail polymerization. Nature Communications, 2015, 6, 6718.	12.8	50
53	Genetic Code Expansion Enables Live-Cell and Super-Resolution Imaging of Site-Specifically Labeled Cellular Proteins. Journal of the American Chemical Society, 2015, 137, 4602-4605.	13.7	152
54	Ribosome Subunit Stapling for Orthogonal Translation in E.â€¦coli. Angewandte Chemie - International Edition, 2015, 54, 12791-12794.	13.8	61

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55	EGF-dependent re-routing of vesicular recycling switches spontaneous phosphorylation suppression to EGFR signaling. ELife, 2015, 4, .	6.0	55
56	Optimized orthogonal translation of unnatural amino acids enables spontaneous protein double-labelling and FRET. Nature Chemistry, 2014, 6, 393-403.	13.6	233
57	Concerted, Rapid, Quantitative, and Site-Specific Dual Labeling of Proteins. Journal of the American Chemical Society, 2014, 136, 7785-7788.	13.7	132
58	Cellular Incorporation of Unnatural Amino Acids and Bioorthogonal Labeling of Proteins. Chemical Reviews, 2014, 114, 4764-4806.	47.7	861
59	Genetically Encoded Optochemical Probes for Simultaneous Fluorescence Reporting and Light Activation of Protein Function with Two-Photon Excitation. Journal of the American Chemical Society, 2014, 136, 15551-15558.	13.7	137
60	Efficient Multisite Unnatural Amino Acid Incorporation in Mammalian Cells via Optimized Pyrrolysyl tRNA Synthetase/tRNA Expression and Engineered eRF1. Journal of the American Chemical Society, 2014, 136, 15577-15583.	13.7	216
61	Conformationally strained trans-cyclooctene with improved stability and excellent reactivity in tetrazine ligation. Chemical Science, 2014, 5, 3770-3776.	7.4	201
62	Genetic code expansion and bioorthogonal labelling enables cell specific proteomics in an animal. Current Opinion in Chemical Biology, 2014, 21, 154-160.	6.1	28
63	Bioorthogonal Reactions for Labeling Proteins. ACS Chemical Biology, 2014, 9, 16-20.	3.4	467
64	Proteome labeling and protein identification in specific tissues and at specific developmental stages in an animal. Nature Biotechnology, 2014, 32, 465-472.	17.5	161
65	Expanding and Reprogramming the Genetic Code of Cells and Animals. Annual Review of Biochemistry, 2014, 83, 379-408.	11.1	425
66	Strain-promoted sydnone bicyclo-[6.1.0]-nonyne cycloaddition. Chemical Science, 2014, 5, 1742-1744.	7.4	98
67	Genetically Encoded Light-Activated Transcription for Spatiotemporal Control of Gene Expression and Gene Silencing in Mammalian Cells. Journal of the American Chemical Society, 2013, 135, 13433-13439.	13.7	83
68	Efficient and Rapid C. elegans Transgenesis by Bombardment and Hygromycin B Selection. PLoS ONE, 2013, 8, e76019.	2.5	66
69	A different life?. Current Opinion in Chemical Biology, 2012, 16, 243-244.	6.1	2
70	Genetically encoded norbornene directs site-specific cellular protein labelling via a rapid bioorthogonal reaction. Nature Chemistry, 2012, 4, 298-304.	13.6	424
71	Expanding the genetic code of Drosophila melanogaster. Nature Chemical Biology, 2012, 8, 748-750.	8.0	177
72	Reprogramming the Genetic Code. Science, 2012, 336, 428-429.	12.6	45

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73	Genetic Encoding of Bicyclononynes and trans-Cyclooctenes for Site-Specific Protein Labeling in Vitro and in Live Mammalian Cells via Rapid Fluorogenic Dielsâ€“Alder Reactions. Journal of the American Chemical Society, 2012, 134, 10317-10320.	13.7	456
74	Designer proteins: applications of genetic code expansion in cell biology. Nature Reviews Molecular Cell Biology, 2012, 13, 168-182.	37.0	313
75	Photocontrol of Tyrosine Phosphorylation in Mammalian Cells via Genetic Encoding of Photocaged Tyrosine. Journal of the American Chemical Society, 2012, 134, 11912-11915.	13.7	140
76	Reprogramming the Genetic Code: From Triplet to Quadruplet Codes. Angewandte Chemie - International Edition, 2012, 51, 2288-2297.	13.8	83
77	Light-Activated Kinases Enable Temporal Dissection of Signaling Networks in Living Cells. Journal of the American Chemical Society, 2011, 133, 2124-2127.	13.7	143
78	Genetically encoding an aliphatic diazirine for protein photocrosslinking. Chemical Science, 2011, 2, 480-483.	7.4	81
79	Traceless and Site-Specific Ubiquitination of Recombinant Proteins. Journal of the American Chemical Society, 2011, 133, 10708-10711.	13.7	161
80	Genetically Encoded 1,2-Aminothiols Facilitate Rapid and Site-Specific Protein Labeling via a Bio-orthogonal Cyanobenzothiazole Condensation. Journal of the American Chemical Society, 2011, 133, 11418-11421.	13.7	144
81	Orthogonal Gene Expression in Escherichia coli. Methods in Enzymology, 2011, 497, 115-134.	1.0	4
82	Expanding the Genetic Code of an Animal. Journal of the American Chemical Society, 2011, 133, 14196-14199.	13.7	218
83	Reprogramming the genetic code. EMBO Journal, 2011, 30, 2312-2324.	7.8	27
84	Acetylation of lysine 120 of p53 endows DNA-binding specificity at effective physiological salt concentration. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8251-8256.	7.1	81
85	Molecular basis for ubiquitin and ISG15 cross-reactivity in viral ovarian tumor domains. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2228-2233.	7.1	124
86	Genetically Directing É›-N, N-Dimethyl-l-Lysine in Recombinant Histones. Chemistry and Biology, 2010, 17, 1072-1076.	6.0	82
87	Encoding multiple unnatural amino acids via evolution of a quadruplet-decoding ribosome. Nature, 2010, 464, 441-444.	27.8	559
88	Acetylation regulates Cyclophilin A catalysis, immunosuppression and HIV isomerization. Nature Chemical Biology, 2010, 6, 331-337.	8.0	102
89	Engineered diubiquitin synthesis reveals Lys29-isopeptide specificity of an OTU deubiquitinase. Nature Chemical Biology, 2010, 6, 750-757.	8.0	269
90	Evolved orthogonal ribosome purification for in vitro characterization. Nucleic Acids Research, 2010, 38, 2682-2691.	14.5	27

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91	De Novo Generation of Mutually Orthogonal Aminoacyl-tRNA Synthetase/tRNA Pairs. Journal of the American Chemical Society, 2010, 132, 2142-2144.	13.7	79
92	Expanding the Genetic Code of Yeast for Incorporation of Diverse Unnatural Amino Acids via a Pyrrolysyl-tRNA Synthetase/tRNA Pair. Journal of the American Chemical Society, 2010, 132, 14819-14824.	13.7	187
93	Genetically Encoded Photocontrol of Protein Localization in Mammalian Cells. Journal of the American Chemical Society, 2010, 132, 4086-4088.	13.7	232
94	Journal club. Nature, 2009, 457, 239-239.	27.8	0
95	Genetic Encoding and Labeling of Aliphatic Azides and Alkynes in Recombinant Proteins via a Pyrrolysyl-tRNA Synthetase/tRNA_{CUA} Pair and Click Chemistry. Journal of the American Chemical Society, 2009, 131, 8720-8721.	13.7	285
96	A Method for Genetically Installing Site-Specific Acetylation in Recombinant Histones Defines the Effects of H3 K56 Acetylation. Molecular Cell, 2009, 36, 153-163.	9.7	453
97	Genetically Encoding N^{Ïµ}-Methyl-<scp>l</scp>-lysine in Recombinant Histones. Journal of the American Chemical Society, 2009, 131, 14194-14195.	13.7	151
98	Synthesis of orthogonal transcription-translation networks. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8477-8482.	7.1	118
99	Genetically encoding NÎµ-acetyllysine in recombinant proteins. Nature Chemical Biology, 2008, 4, 232-234.	8.0	530
100	Genetically Encoding Protein Oxidative Damage. Journal of the American Chemical Society, 2008, 130, 4028-4033.	13.7	104
101	Evolved orthogonal ribosomes enhance the efficiency of synthetic genetic code expansion. Nature Biotechnology, 2007, 25, 770-777.	17.5	272
102	Functional epitopes at the ribosome subunit interface. , 2006, 2, 254-258.		30
103	Modular approaches to expanding the functions of living matter. Nature Chemical Biology, 2006, 2, 304-311.	8.0	69
104	Programming and engineering biological networks. Current Opinion in Structural Biology, 2006, 16, 551-556.	5.7	34
105	A genetically encoded fluorescent amino acid. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9785-9789.	7.1	243
106	A network of orthogonal ribosomeÂ·mRNA pairs. , 2005, 1, 159-166.		262
107	Photo-cross-linking interacting proteins with a genetically encoded benzophenone. Nature Methods, 2005, 2, 377-384.	19.0	154
108	Cellular Logic with Orthogonal Ribosomes. Journal of the American Chemical Society, 2005, 127, 17584-17585.	13.7	78

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109	Substrate recognition by the AAA+ chaperone ClpB. Nature Structural and Molecular Biology, 2004, 11, 607-615.	8.2	219
110	Progress Toward an Expanded Eukaryotic Genetic Code. Chemistry and Biology, 2003, 10, 511-519.	6.0	83
111	An Expanded Eukaryotic Genetic Code. Science, 2003, 301, 964-967.	12.6	726
112	Adding Amino Acids with Novel Reactivity to the Genetic Code of Saccharomyces Cerevisiae. Journal of the American Chemical Society, 2003, 125, 11782-11783.	13.7	371
113	Addition of a photocrosslinking amino acid to the genetic code of Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11020-11024.	7.1	617
114	Addition ofp-Azido-l-phenylalanine to the Genetic Code ofEscherichiacoli. Journal of the American Chemical Society, 2002, 124, 9026-9027.	13.7	655
115	In Vivo Photocrosslinking with Unnatural Amino Acid Mutagenesis. ChemBioChem, 2002, 3, 1135-1137.	2.6	135
116	Concerted Evolution of Structure and Function in a Miniature Protein. Journal of the American Chemical Society, 2001, 123, 2929-2930.	13.7	98
117	Methodology for optimizing functional miniature proteins based on avian pancreatic polypeptide using phage display. Bioorganic and Medicinal Chemistry Letters, 2001, 11, 1501-1505.	2.2	34
118	Design and Evolution of a Miniature Bcl-2 Binding Protein. Angewandte Chemie - International Edition, 2001, 40, 3806-3809.	13.8	95
119	Design and Evolution of a Miniature Bcl-2 Binding Protein We thank the UHMI Biopolymer/Keck Foundation Biotechnology Resource Laboratory (Yale University School of Medicine, New Haven, CT) for oligonucleotide and peptide synthesis and amino acid analysis and Professor Jennifer Doudna (Yale University) for use of a Perseptive Voyager-DE (MALDI-TOF) mass spectrometer. We are grateful also to Dr. Junying Yuan and Dr. Alexi Degterev (Harvard Medical School) for a generous gift of	13.8	26
120	Discovery and Genetic Code Expansion of a Polyethylene Terephthalate (PET) Hydrolase from the Human Saliva Metagenome for the Degradation and Bioâ€Functionalization of PET. Angewandte Chemie, 0, , .	2.0	2