

Hui-wang Ai

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

3,443
citations

218677

26
h-index

161849

54
g-index

61
all docs

61
docs citations

61
times ranked

4772
citing authors

#	ARTICLE	IF	CITATIONS
1	Directed evolution of a monomeric, bright and photostable version of Clavularia cyan fluorescent protein: structural characterization and applications in fluorescence imaging. <i>Biochemical Journal</i> , 2006, 400, 531-540.	3.7	401
2	Fluorescent protein FRET pairs for ratiometric imaging of dual biosensors. <i>Nature Methods</i> , 2008, 5, 401-403.	19.0	320
3	Reaction-Based Genetically Encoded Fluorescent Hydrogen Sulfide Sensors. <i>Journal of the American Chemical Society</i> , 2012, 134, 9589-9592.	13.7	305
4	Exploration of New Chromophore Structures Leads to the Identification of Improved Blue Fluorescent Proteins. <i>Biochemistry</i> , 2007, 46, 5904-5910.	2.5	281
5	Structural basis for reversible photobleaching of a green fluorescent protein homologue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 6672-6677.	7.1	213
6	Genetically Encoded Fluorescent Probe for the Selective Detection of Peroxynitrite. <i>Journal of the American Chemical Society</i> , 2013, 135, 14940-14943.	13.7	148
7	Red-shifted luciferase-luciferin pairs for enhanced bioluminescence imaging. <i>Nature Methods</i> , 2017, 14, 971-974.	19.0	141
8	Hue-shifted monomeric variants of Clavulariacyan fluorescent protein: identification of the molecular determinants of color and applications in fluorescence imaging. <i>BMC Biology</i> , 2008, 6, 13.	3.8	127
9	Development and Applications of Bioluminescent and Chemiluminescent Reporters and Biosensors. <i>Annual Review of Analytical Chemistry</i> , 2019, 12, 129-150.	5.4	124
10	Probing Protein-Protein Interactions with a Genetically Encoded Photo-crosslinking Amino Acid. <i>ChemBioChem</i> , 2011, 12, 1854-1857.	2.6	105
11	Efficient viral delivery system for unnatural amino acid mutagenesis in mammalian cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 11803-11808.	7.1	103
12	Light Activation of Protein Splicing with a Photocaged Fast Intein. <i>Journal of the American Chemical Society</i> , 2015, 137, 2155-2158.	13.7	73
13	Monitoring Redox Dynamics in Living Cells with a Redox-Sensitive Red Fluorescent Protein. <i>Analytical Chemistry</i> , 2015, 87, 2802-2810.	6.5	64
14	Red Fluorescent Protein pH Biosensor to Detect Concentrative Nucleoside Transport. <i>Journal of Biological Chemistry</i> , 2009, 284, 20499-20511.	3.4	61
15	Monitoring thioredoxin redox with a genetically encoded red fluorescent biosensor. <i>Nature Chemical Biology</i> , 2017, 13, 1045-1052.	8.0	61
16	The N-B Interaction through a Water Bridge: Understanding the Chemoselectivity of a Fluorescent Protein Based Probe for Peroxynitrite. <i>Journal of the American Chemical Society</i> , 2016, 138, 4900-4907.	13.7	59
17	A Highly Responsive and Selective Fluorescent Probe for Imaging Physiological Hydrogen Sulfide. <i>Biochemistry</i> , 2014, 53, 5966-5974.	2.5	57
18	A Sensitive Near-Infrared Fluorescent Sensor for Mitochondrial Hydrogen Sulfide. <i>ACS Sensors</i> , 2018, 3, 992-997.	7.8	57

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19	Förster Resonance Energy Transfer-Based Biosensors for Multiparameter Ratiometric Imaging of Ca ²⁺ Dynamics and Caspase-3 Activity in Single Cells. <i>Analytical Chemistry</i> , 2011, 83, 9687-9693.	6.5	52
20	Engineering and characterizing monomeric fluorescent proteins for live-cell imaging applications. <i>Nature Protocols</i> , 2014, 9, 910-928.	12.0	51
21	ATP-Independent Bioluminescent Reporter Variants To Improve in Vivo Imaging. <i>ACS Chemical Biology</i> , 2019, 14, 959-965.	3.4	50
22	Single Fluorescent Protein-Based Indicators for Zinc Ion (Zn ²⁺). <i>Analytical Chemistry</i> , 2016, 88, 9029-9036.	6.5	45
23	A Genetically Encoded, Ratiometric Fluorescent Biosensor for Hydrogen Sulfide. <i>ACS Sensors</i> , 2019, 4, 1626-1632.	7.8	38
24	Biochemical analysis with the expanded genetic lexicon. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 403, 2089-2102.	3.7	37
25	Evolution of Iron(II)-Finger Peptides by Using a Bipyridyl Amino Acid. <i>ChemBioChem</i> , 2014, 15, 822-825.	2.6	35
26	An Intramolecular Interaction of UHRF1 Reveals Dual Control for Its Histone Association. <i>Structure</i> , 2018, 26, 304-311.e3.	3.3	32
27	Identification of Factors Complicating Bioluminescence Imaging. <i>Biochemistry</i> , 2019, 58, 1689-1697.	2.5	28
28	Genetically Encoded Fluorescent Redox Probes. <i>Sensors</i> , 2013, 13, 15422-15433.	3.8	26
29	Molecular Tools to Generate Reactive Oxygen Species in Biological Systems. <i>Bioconjugate Chemistry</i> , 2019, 30, 1297-1303.	3.6	26
30	Fluorescent-protein-based probes: general principles and practices. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 9-15.	3.7	22
31	Identification of Sites Within a Monomeric Red Fluorescent Protein that Tolerate Peptide Insertion and Testing of Corresponding Circular Permutations. <i>Photochemistry and Photobiology</i> , 2007, 84, 071018085748006-???	2.5	21
32	Engineering and exploiting synthetic allostery of NanoLuc luciferase. <i>Nature Communications</i> , 2022, 13, 789.	12.8	21
33	Genetically Encoded, Photostable Indicators to Image Dynamic Zn ²⁺ Secretion of Pancreatic Islets. <i>Analytical Chemistry</i> , 2019, 91, 12212-12219.	6.5	20
34	A general strategy to red-shift green fluorescent protein-based biosensors. <i>Nature Chemical Biology</i> , 2020, 16, 1434-1439.	8.0	20
35	Illuminating Brain Activities with Fluorescent Protein-Based Biosensors. <i>Chemosensors</i> , 2017, 5, 32.	3.6	19
36	Expanding the Genetic Code for a Dinitrophenyl Hapten. <i>ChemBioChem</i> , 2015, 16, 2007-2010.	2.6	16

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37	Study of the Binding Energies between Unnatural Amino Acids and Engineered Orthogonal Tyrosyl-tRNA Synthetases. <i>Scientific Reports</i> , 2015, 5, 12632.	3.3	16
38	Development of redox-sensitive red fluorescent proteins for imaging redox dynamics in cellular compartments. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 2901-2911.	3.7	16
39	Fluorescent Sensors for Biological Applications. <i>Sensors</i> , 2014, 14, 17829-17831.	3.8	15
40	A Genetically Encoded FRET Sensor for Hypoxia and Prolyl Hydroxylases. <i>ACS Chemical Biology</i> , 2016, 11, 2492-2498.	3.4	15
41	Enabling technologies in super-resolution fluorescence microscopy: reporters, labeling, and methods of measurement. <i>Current Opinion in Structural Biology</i> , 2019, 58, 224-232.	5.7	15
42	A high-performance genetically encoded fluorescent biosensor for imaging physiological peroxynitrite. <i>Cell Chemical Biology</i> , 2021, 28, 1542-1553.e5.	5.2	14
43	A luciferase prosubstrate and a red bioluminescent calcium indicator for imaging neuronal activity in mice. <i>Nature Communications</i> , 2022, 13, .	12.8	13
44	Peptide sequencing through N-terminal phosphorylation and electrospray ionization mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2005, 40, 772-776.	1.6	12
45	A membrane-activatable near-infrared fluorescent probe with ultra-photostability for mitochondrial membrane potentials. <i>Analyst</i> , The, 2016, 141, 3679-3685.	3.5	9
46	Genetically Encoded Fluorescent Redox Indicators for Unveiling Redox Signaling and Oxidative Toxicity. <i>Chemical Research in Toxicology</i> , 2021, 34, 1826-1845.	3.3	9
47	Circularly Permuted Far-Red Fluorescent Proteins. <i>Biosensors</i> , 2021, 11, 438.	4.7	9
48	Complexities of the chemogenetic toolkit: Differential mDAAO activation by d-amino substrates and subcellular targeting. <i>Free Radical Biology and Medicine</i> , 2021, 177, 132-142.	2.9	8
49	Genetically Encoded Green Fluorescent Biosensors for Monitoring UDP-GlcNAc in Live Cells. <i>ACS Central Science</i> , 2021, 7, 1763-1770.	11.3	7
50	Improved Red Fluorescent Redox Indicators for Monitoring Cytosolic and Mitochondrial Thioredoxin Redox Dynamics. <i>Biochemistry</i> , 2022, 61, 377-384.	2.5	5
51	A Smartphone-Fluidic Digital Imaging Analysis System for Pancreatic Islet Mass Quantification. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 692686.	4.1	4
52	Ratiometric Imaging of Mitochondrial Hydrogen Peroxide in A β ² -Mediated Neurotoxicity. <i>ACS Sensors</i> , 2022, 7, 722-729.	7.8	2
53	Photocontrol of the Src Kinase in Mammalian Cells with a Photocaged Intein. <i>Methods in Molecular Biology</i> , 2017, 1495, 217-226.	0.9	1