

Takuya Terai

List of Publications by Year in descending order

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91
papers

8,172
citations

53794

45
h-index

45317

90
g-index

99
all docs

99
docs citations

99
times ranked

9241
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of a Highly Selective Fluorescence Probe for Hydrogen Sulfide. <i>Journal of the American Chemical Society</i> , 2011, 133, 18003-18005.	13.7	614
2	Development of an Si-Rhodamine-Based Far-Red to Near-Infrared Fluorescence Probe Selective for Hypochlorous Acid and Its Applications for Biological Imaging. <i>Journal of the American Chemical Society</i> , 2011, 133, 5680-5682.	13.7	524
3	Fluorescent probes for bioimaging applications. <i>Current Opinion in Chemical Biology</i> , 2008, 12, 515-521.	6.1	370
4	Development of a Highly Sensitive Fluorescence Probe for Hydrogen Peroxide. <i>Journal of the American Chemical Society</i> , 2011, 133, 10629-10637.	13.7	340
5	Evolution of Group 14 Rhodamines as Platforms for Near-Infrared Fluorescence Probes Utilizing Photoinduced Electron Transfer. <i>ACS Chemical Biology</i> , 2011, 6, 600-608.	3.4	339
6	Development and Application of a Near-Infrared Fluorescence Probe for Oxidative Stress Based on Differential Reactivity of Linked Cyanine Dyes. <i>Journal of the American Chemical Society</i> , 2010, 132, 2795-2801.	13.7	329
7	Hypoxia-Sensitive Fluorescent Probes for <i>in Vivo</i> Real-Time Fluorescence Imaging of Acute Ischemia. <i>Journal of the American Chemical Society</i> , 2010, 132, 15846-15848.	13.7	321
8	Rational Design of Ratiometric Near-Infrared Fluorescent pH Probes with Various pK_a Values, Based on Aminocyanine. <i>Journal of the American Chemical Society</i> , 2011, 133, 3401-3409.	13.7	260
9	Development of NIR Fluorescent Dyes Based on Si-rhodamine for <i>in Vivo</i> Imaging. <i>Journal of the American Chemical Society</i> , 2012, 134, 5029-5031.	13.7	259
10	Development of Azo-Based Fluorescent Probes to Detect Different Levels of Hypoxia. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 13028-13032.	13.8	241
11	Small-molecule fluorophores and fluorescent probes for bioimaging. <i>Pflugers Archiv European Journal of Physiology</i> , 2013, 465, 347-359.	2.8	240
12	Rational Design of Highly Sensitive Fluorescence Probes for Protease and Glycosidase Based on Precisely Controlled Spirocyclization. <i>Journal of the American Chemical Society</i> , 2013, 135, 409-414.	13.7	231
13	Development of an Azo-Based Photosensitizer Activated under Mild Hypoxia for Photodynamic Therapy. <i>Journal of the American Chemical Society</i> , 2017, 139, 13713-13719.	13.7	206
14	Development of a Far-Red to Near-Infrared Fluorescence Probe for Calcium Ion and its Application to Multicolor Neuronal Imaging. <i>Journal of the American Chemical Society</i> , 2011, 133, 14157-14159.	13.7	176
15	Modulation of Luminescence Intensity of Lanthanide Complexes by Photoinduced Electron Transfer and Its Application to a Long-Lived Protease Probe. <i>Journal of the American Chemical Society</i> , 2006, 128, 6938-6946.	13.7	151
16	Design and Synthesis of a Highly Sensitive Off-On Fluorescent Chemosensor for Zinc Ions Utilizing Internal Charge Transfer. <i>Chemistry - A European Journal</i> , 2010, 16, 568-572.	3.3	151
17	Development of a fluorescein analogue, TokyoMagenta, as a novel scaffold for fluorescence probes in red region. <i>Chemical Communications</i> , 2011, 47, 4162.	4.1	151
18	A reversible near-infrared fluorescence probe for reactive oxygen species based on Te-rhodamine. <i>Chemical Communications</i> , 2012, 48, 3091.	4.1	147

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19	Design and Synthesis of Highly Sensitive Fluorogenic Substrates for Glutathione S-Transferase and Application for Activity Imaging in Living Cells. <i>Journal of the American Chemical Society</i> , 2008, 130, 14533-14543.	13.7	139
20	Molecular Design Strategies for Near-Infrared Ratiometric Fluorescent Probes Based on the Unique Spectral Properties of Aminocyanines. <i>Chemistry - A European Journal</i> , 2009, 15, 9191-9200.	3.3	122
21	Design Strategy for a Near-Infrared Fluorescence Probe for Matrix Metalloproteinase Utilizing Highly Cell Permeable Boron Dipyrromethene. <i>Journal of the American Chemical Society</i> , 2012, 134, 13730-13737.	13.7	120
22	Highly Activatable and Environment-Insensitive Optical Highlighters for Selective Spatiotemporal Imaging of Target Proteins. <i>Journal of the American Chemical Society</i> , 2012, 134, 11153-11160.	13.7	115
23	Development of a Series of Practical Fluorescent Chemical Tools To Measure pH Values in Living Samples. <i>Journal of the American Chemical Society</i> , 2018, 140, 5925-5933.	13.7	115
24	Reversible Off-On Fluorescence Probe for Hypoxia and Imaging of Hypoxia-Normoxia Cycles in Live Cells. <i>Journal of the American Chemical Society</i> , 2012, 134, 19588-19591.	13.7	110
25	Development of a Series of Near-Infrared Dark Quenchers Based on Si-rhodamines and Their Application to Fluorescent Probes. <i>Journal of the American Chemical Society</i> , 2015, 137, 4759-4765.	13.7	109
26	A Simple and Effective Strategy To Increase the Sensitivity of Fluorescence Probes in Living Cells. <i>Journal of the American Chemical Society</i> , 2009, 131, 10189-10200.	13.7	104
27	Selective Ablation of β -Galactosidase-Expressing Cells with a Rationally Designed Activatable Photosensitizer. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 6772-6775.	13.8	102
28	Boron Dipyrromethene As a Fluorescent Caging Group for Single-Photon Uncaging with Long-Wavelength Visible Light. <i>ACS Chemical Biology</i> , 2014, 9, 2242-2246.	3.4	87
29	Glutathione Suppresses NF- κ B Activation by Selectively Inhibiting Linear Ubiquitin Chain Assembly Complex (LUBAC). <i>ACS Chemical Biology</i> , 2015, 10, 675-681.	3.4	77
30	Discovery and Mechanistic Characterization of Selective Inhibitors of H ₂ S-producing Enzyme: 3-Mercaptopyruvate Sulfurtransferase (3MST) Targeting Active-site Cysteine Persulfide. <i>Scientific Reports</i> , 2017, 7, 40227.	3.3	73
31	Design and Development of Enzymatically Activatable Photosensitizer Based on Unique Characteristics of Thiazole Orange. <i>Journal of the American Chemical Society</i> , 2009, 131, 6058-6059.	13.7	72
32	Development of 2,6-carboxy-substituted boron dipyrromethene (BODIPY) as a novel scaffold of ratiometric fluorescent probes for live cell imaging. <i>Chemical Communications</i> , 2009, , 7015.	4.1	71
33	Red Fluorescent Probe for Monitoring the Dynamics of Cytoplasmic Calcium Ions. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 3874-3877.	13.8	71
34	Development of a reversible fluorescent probe for reactive sulfur species, sulfane sulfur, and its biological application. <i>Chemical Communications</i> , 2017, 53, 1064-1067.	4.1	70
35	A Gd ³⁺ -Based Magnetic Resonance Imaging Contrast Agent Sensitive to β -Galactosidase Activity Utilizing a Receptor-Induced Magnetization Enhancement (RIME) Phenomenon. <i>Chemistry - A European Journal</i> , 2008, 14, 987-995.	3.3	67
36	Design and synthesis of a novel fluorescence probe for Zn ²⁺ based on the spirolactam ring-opening process of rhodamine derivatives. <i>Bioorganic and Medicinal Chemistry</i> , 2011, 19, 1072-1078.	3.0	63

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37	New Class of Bioluminogenic Probe Based on Bioluminescent Enzyme-Induced Electron Transfer: BioLeT. <i>Journal of the American Chemical Society</i> , 2015, 137, 4010-4013.	13.7	63
38	Development of Luciferin Analogues Bearing an Amino Group and Their Application as BRET Donors. <i>Chemistry - an Asian Journal</i> , 2010, 5, 2053-2061.	3.3	62
39	Aminoluciferins as Functional Bioluminogenic Substrates of Firefly Luciferase. <i>Chemistry - an Asian Journal</i> , 2011, 6, 1800-1810.	3.3	58
40	Development of a Sensitive Bioluminogenic Probe for Imaging Highly Reactive Oxygen Species in Living Rats. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14768-14771.	13.8	57
41	Near-Infrared Fluorescence Probes for Enzymes Based on Binding Affinity Modulation of Squarylium Dye Scaffold. <i>Analytical Chemistry</i> , 2012, 84, 4404-4410.	6.5	55
42	Rational design of boron dipyrromethene (BODIPY)-based photobleaching-resistant fluorophores applicable to a protein dynamics study. <i>Chemical Communications</i> , 2011, 47, 10055.	4.1	54
43	Protein-Coupled Fluorescent Probe To Visualize Potassium Ion Transition on Cellular Membranes. <i>Analytical Chemistry</i> , 2016, 88, 2693-2700.	6.5	54
44	Analysis of Chemical Equilibrium of Silicon-Substituted Fluorescein and Its Application to Develop a Scaffold for Red Fluorescent Probes. <i>Analytical Chemistry</i> , 2015, 87, 9061-9069.	6.5	49
45	Development of hypoxia-sensitive Gd ³⁺ -based MRI contrast agents. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 2798-2802.	2.2	47
46	Red fluorescent scaffold for highly sensitive protease activity probes. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 3908-3911.	2.2	44
47	A long-lived luminescent probe to sensitively detect arylamine N-acetyltransferase (NAT) activity of cells. <i>Chemical Communications</i> , 2012, 48, 2234.	4.1	40
48	Fluorescence Probe for Lysophospholipase C/NPP6 Activity and a Potent NPP6 Inhibitor. <i>Journal of the American Chemical Society</i> , 2011, 133, 12021-12030.	13.7	37
49	Synthesis of unsymmetrical Si-rhodamine fluorophores and application to a far-red to near-infrared fluorescence probe for hypoxia. <i>Chemical Communications</i> , 2018, 54, 6939-6942.	4.1	36
50	A Time-Resolved Fluorescence Probe for Dipeptidyl Peptidase 4 and Its Application in Inhibitor Screening. <i>Chemistry - A European Journal</i> , 2010, 16, 13479-13486.	3.3	34
51	Development of a highly selective fluorescence probe for alkaline phosphatase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 5088-5091.	2.2	34
52	Rational Development of Caged-Biotin Protein-Labeling Agents and Some Applications in Live Cells. <i>Chemistry and Biology</i> , 2011, 18, 1261-1272.	6.0	34
53	Development of an Azoreductase-based Reporter System with Synthetic Fluorogenic Substrates. <i>ACS Chemical Biology</i> , 2017, 12, 558-563.	3.4	33
54	A practical strategy to create near-infrared luminescent probes: conversion from fluorescein-based sensors. <i>Chemical Communications</i> , 2012, 48, 2840.	4.1	32

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55	Thermal or Mechanical Stimuli-Induced Photoluminescence Color Change of a Molecular Assembly Composed of an Amphiphilic Anthracene Derivative in Water. <i>Chemistry - A European Journal</i> , 2014, 20, 10397-10403.	3.3	32
56	Development of a potassium ion-selective fluorescent sensor based on 3-styrylated BODIPY. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 6090-6093.	2.2	31
57	Diced Electrophoresis Gel Assay for Screening Enzymes with Specified Activities. <i>Journal of the American Chemical Society</i> , 2013, 135, 6002-6005.	13.7	31
58	Practical fluorescence detection of acrolein in human plasma via a two-step tethering approach. <i>Chemical Communications</i> , 2014, 50, 14946-14948.	4.1	26
59	Salicylic Acid Derivatives as Antennae for Ratiometric Luminescent Probes Based on Lanthanide Complexes. <i>Chemistry - A European Journal</i> , 2012, 18, 7377-7381.	3.3	24
60	Development of practical red fluorescent probe for cytoplasmic calcium ions with greatly improved cell-membrane permeability. <i>Cell Calcium</i> , 2016, 60, 256-265.	2.4	24
61	TokyoGreen derivatives as specific and practical fluorescent probes for UDP-glucuronosyltransferase (UGT) 1A1. <i>Chemical Communications</i> , 2013, 49, 3101.	4.1	23
62	Sensitive Detection of Acrolein in Serum Using Time-Resolved Luminescence. <i>Organic Letters</i> , 2010, 12, 1704-1707.	4.6	22
63	Detection of NAD(P)H-dependent enzyme activity with dynamic luminescence quenching of terbium complexes. <i>Chemical Communications</i> , 2015, 51, 8319-8322.	4.1	22
64	Artificial Ligands of Streptavidin (ALiS): Discovery, Characterization, and Application for Reversible Control of Intracellular Protein Transport. <i>Journal of the American Chemical Society</i> , 2015, 137, 10464-10467.	13.7	22
65	Identification of Tissue-Restricted Bioreaction Suitable for in Vivo Targeting by Fluorescent Substrate Library-Based Enzyme Discovery. <i>Journal of the American Chemical Society</i> , 2015, 137, 12187-12190.	13.7	20
66	In Situ Evaluation of Kinetic Resolution Catalysts for Nitroaldol by Rationally Designed Fluorescence Probe. <i>Journal of Organic Chemistry</i> , 2011, 76, 3616-3625.	3.2	18
67	Discovery of Cell-Type-Specific and Disease-Related Enzymatic Activity Changes via Global Evaluation of Peptide Metabolism. <i>Journal of the American Chemical Society</i> , 2017, 139, 3465-3472.	13.7	17
68	Unexpected Photo-instability of 2,6-Sulfonamide-Substituted BODIPYs and Its Application to Caged GABA. <i>ChemBioChem</i> , 2016, 17, 1233-1240.	2.6	16
69	Development of a novel fluorescent probe for fluorescence correlation spectroscopic detection of kinase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 3752-3755.	2.2	14
70	A novel immuno-PCR method using cDNA display. <i>Analytical Biochemistry</i> , 2019, 578, 1-6.	2.4	14
71	Rapidly rendering cells phagocytic through a cell surface display technique and concurrent Rac activation. <i>Science Signaling</i> , 2014, 7, rs4.	3.6	13
72	A design strategy for small molecule-based targeted MRI contrast agents: their application for detection of atherosclerotic plaques. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 8611-8618.	2.8	13

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73	Selection of Peptides that Associate with Dye-Conjugated Solid Surfaces in a pH-Dependent Manner Using cDNA Display. <i>ACS Omega</i> , 2019, 4, 7378-7384.	3.5	13
74	In vitro selection of anti-gliadin single-domain antibodies from a naïve library for cDNA-display mediated immuno-PCR. <i>Analytical Biochemistry</i> , 2020, 589, 113490.	2.4	13
75	In vitro selection of random peptides against artificial lipid bilayers: a potential tool to immobilize molecules on membranes. <i>Chemical Communications</i> , 2017, 53, 3458-3461.	4.1	12
76	A protein-coupled fluorescent probe for organelle-specific imaging of Na ⁺ . <i>Sensors and Actuators B: Chemical</i> , 2018, 265, 575-581.	7.8	12
77	Development of Chemical Tools to Monitor and Control Isoaspartyl Peptide Methyltransferase Activity. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 153-157.	13.8	11
78	Selective Two-Step Labeling of Proteins with an Off/On Fluorescent Probe. <i>Chemistry - A European Journal</i> , 2011, 17, 14763-14771.	3.3	10
79	Detection of NAD(P)H-dependent enzyme activity by time-domain ratiometry of terbium luminescence. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 2314-2317.	2.2	8
80	Discovery of a pyruvylated peptide-metabolizing enzyme using a fluorescent substrate-based protein discovery technique. <i>Chemical Communications</i> , 2016, 52, 4377-4380.	4.1	7
81	Fluorometric assay of integrin activity with a small-molecular probe that senses the binding site microenvironment. <i>Chemical Communications</i> , 2014, 50, 15894-15896.	4.1	6
82	Enhanced mRNA-protein fusion efficiency of a single-domain antibody by selection of mRNA display with additional random sequences in the terminal translated regions. <i>Biophysics and Physicobiology</i> , 2017, 14, 23-28.	1.0	6
83	Identification of Lung Inflammation-Related Elevation of Acylamino Acid Releasing Enzyme (APEH) Activity Using an Enzymomics Approach. <i>Chemical and Pharmaceutical Bulletin</i> , 2016, 64, 1533-1538.	1.3	5
84	Photocrosslinking of cDNA Display Molecules with Their Target Proteins as a New Strategy for Peptide Selection. <i>Molecules</i> , 2020, 25, 1472.	3.8	3
85	cDNA Display Mediated Immuno-PCR (cD-IPCR): A Novel PCR-based Antigen Detection Method. <i>Bio-protocol</i> , 2019, 9, e3457.	0.4	3
86	Site-Specific Oxidative Stress Induction. <i>Chemistry and Biology</i> , 2007, 14, 877-878.	6.0	2
87	In Vitro Construction of Large-scale DNA Libraries from Fragments Containing Random Regions using Deoxyinosine-containing Oligonucleotides and Endonuclease V. <i>ACS Combinatorial Science</i> , 2020, 22, 165-171.	3.8	2
88	Interleukin-17A Peptide Aptamers with an Unexpected Binding Moiety Selected by cDNA Display under Heterogenous Conditions. <i>ACS Medicinal Chemistry Letters</i> , 2021, 12, 1427-1434.	2.8	2
89	Improving the Solubility of Artificial Ligands of Streptavidin to Enable More Practical Reversible Switching of Protein Localization in Cells. <i>ChemBioChem</i> , 2017, 18, 358-362.	2.6	1
90	Development of Chemical Tools to Monitor and Control Isoaspartyl Peptide Methyltransferase Activity. <i>Angewandte Chemie</i> , 2017, 129, 159-163.	2.0	1

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91	Synthesis of practical red fluorescent probe for cytoplasmic calcium ions with greatly improved cell-membrane permeability. Data in Brief, 2017, 12, 351-357.	1.0	1