

# Takuya Terai

## List of Publications by Citations

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95  
papers

6,879  
citations

43  
h-index

82  
g-index

99  
ext. papers

7,599  
ext. citations

8.3  
avg, IF

5.69  
L-index

#	Paper	IF	Citations
95	Development of a highly selective fluorescence probe for hydrogen sulfide. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 18003-5	16.4	550
94	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> , <b>2011</b> , 133, 5680-2	16.4	463
93	Fluorescent probes for bioimaging applications. <i>Current Opinion in Chemical Biology</i> , <b>2008</b> , 12, 515-21	9.7	313
92	Development of a highly sensitive fluorescence probe for hydrogen peroxide. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 10629-37	16.4	284
91	Hypoxia-sensitive fluorescent probes for in vivo real-time fluorescence imaging of acute ischemia. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 15846-8	16.4	279
90	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> , <b>2010</b> , 132, 2795-801	16.4	276
89	Evolution of group 14 rhodamines as platforms for near-infrared fluorescence probes utilizing photoinduced electron transfer. <i>ACS Chemical Biology</i> , <b>2011</b> , 6, 600-8	4.9	264
88	Rational design of ratiometric near-infrared fluorescent pH probes with various pKa values, based on aminocyanine. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 3401-9	16.4	227
87	Development of NIR fluorescent dyes based on Si-rhodamine for in vivo imaging. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 5029-31	16.4	211
86	Development of azo-based fluorescent probes to detect different levels of hypoxia. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 13028-32	16.4	204
85	Small-molecule fluorophores and fluorescent probes for bioimaging. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2013</b> , 465, 347-59	4.6	198
84	Rational design of highly sensitive fluorescence probes for protease and glycosidase based on precisely controlled spirocyclization. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 409-14	16.4	182
83	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> , <b>2011</b> , 133, 14157-9	16.4	160
82	Development of an Azo-Based Photosensitizer Activated under Mild Hypoxia for Photodynamic Therapy. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 13713-13719	16.4	142
81	Design and synthesis of a highly sensitive off-on fluorescent chemosensor for zinc ions utilizing internal charge transfer. <i>Chemistry - A European Journal</i> , <b>2010</b> , 16, 568-72	4.8	142
80	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> , <b>2006</b> , 128, 6938-46	16.4	138
79	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> , <b>2008</b> , 130, 14533-43	16.4	131

78	Development of a fluorescein analogue, TokyoMagenta, as a novel scaffold for fluorescence probes in red region. <i>Chemical Communications</i> , <b>2011</b> , 47, 4162-4	5.8	130
77	A reversible near-infrared fluorescence probe for reactive oxygen species based on Te-rhodamine. <i>Chemical Communications</i> , <b>2012</b> , 48, 3091-3	5.8	127
76	Molecular design strategies for near-infrared ratiometric fluorescent probes based on the unique spectral properties of aminocyanines. <i>Chemistry - A European Journal</i> , <b>2009</b> , 15, 9191-200	4.8	108
75	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> , <b>2012</b> , 134, 13730-7	16.4	102
74	Highly activatable and environment-insensitive optical highlighters for selective spatiotemporal imaging of target proteins. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 11153-60	16.4	98
73	Reversible off-on fluorescence probe for hypoxia and imaging of hypoxia-normoxia cycles in live cells. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 19588-91	16.4	95
72	A simple and effective strategy to increase the sensitivity of fluorescence probes in living cells. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 10189-200	16.4	91
71	Development of a Series of Practical Fluorescent Chemical Tools To Measure pH Values in Living Samples. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 5925-5933	16.4	88
70	Selective ablation of $\beta$ -galactosidase-expressing cells with a rationally designed activatable photosensitizer. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 6772-5	16.4	85
69	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> , <b>2015</b> , 137, 4759-65	16.4	76
68	Boron dipyrromethene as a fluorescent caging group for single-photon uncaging with long-wavelength visible light. <i>ACS Chemical Biology</i> , <b>2014</b> , 9, 2242-6	4.9	70
67	A $Gd^{3+}$ -based magnetic resonance imaging contrast agent sensitive to beta-galactosidase activity utilizing a receptor-induced magnetization enhancement (RIME) phenomenon. <i>Chemistry - A European Journal</i> , <b>2008</b> , 14, 987-95	4.8	65
66	Red fluorescent probe for monitoring the dynamics of cytoplasmic calcium ions. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 3874-7	16.4	63
65	Design and development of enzymatically activatable photosensitizer based on unique characteristics of thiazole orange. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 6058-9	16.4	63
64	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> , <b>2009</b> , 7015-7	5.8	60
63	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> , <b>2011</b> , 19, 1072-8	3.4	59
62	Glutotoxin suppresses NF- $\kappa$ B activation by selectively inhibiting linear ubiquitin chain assembly complex (LUBAC). <i>ACS Chemical Biology</i> , <b>2015</b> , 10, 675-81	4.9	58
61	Development of a reversible fluorescent probe for reactive sulfur species, sulfane sulfur, and its biological application. <i>Chemical Communications</i> , <b>2017</b> , 53, 1064-1067	5.8	55

60	New class of bioluminogenic probe based on bioluminescent enzyme-induced electron transfer: BioLeT. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 4010-3	16.4	55
59	Development of luciferin analogues bearing an amino group and their application as BRET donors. <i>Chemistry - an Asian Journal</i> , <b>2010</b> , 5, 2053-61	4.5	54
58	Discovery and Mechanistic Characterization of Selective Inhibitors of HS-producing Enzyme: 3-Mercaptopyruvate Sulfurtransferase (3MST) Targeting Active-site Cysteine Persulfide. <i>Scientific Reports</i> , <b>2017</b> , 7, 40227	4.9	51
57	Rational design of boron dipyrromethene (BODIPY)-based photobleaching-resistant fluorophores applicable to a protein dynamics study. <i>Chemical Communications</i> , <b>2011</b> , 47, 10055-7	5.8	51
56	Aminoluciferins as functional bioluminogenic substrates of firefly luciferase. <i>Chemistry - an Asian Journal</i> , <b>2011</b> , 6, 1800-10	4.5	49
55	Protein-Coupled Fluorescent Probe To Visualize Potassium Ion Transition on Cellular Membranes. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 2693-700	7.8	45
54	Development of hypoxia-sensitive Gd <sup>3+</sup> -based MRI contrast agents. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2012</b> , 22, 2798-802	2.9	45
53	Development of a Sensitive Bioluminogenic Probe for Imaging Highly Reactive Oxygen Species in Living Rats. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 14768-71	16.4	45
52	Near-infrared fluorescence probes for enzymes based on binding affinity modulation of squarylium dye scaffold. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 4404-10	7.8	43
51	Analysis of chemical equilibrium of silicon-substituted fluorescein and its application to develop a scaffold for red fluorescent probes. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 9061-9	7.8	41
50	A long-lived luminescent probe to sensitively detect arylamine N-acetyltransferase (NAT) activity of cells. <i>Chemical Communications</i> , <b>2012</b> , 48, 2234-6	5.8	36
49	Fluorescence probe for lysophospholipase C/NPP6 activity and a potent NPP6 inhibitor. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 12021-30	16.4	33
48	Red fluorescent scaffold for highly sensitive protease activity probes. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2012</b> , 22, 3908-11	2.9	32
47	A practical strategy to create near-infrared luminescent probes: conversion from fluorescein-based sensors. <i>Chemical Communications</i> , <b>2012</b> , 48, 2840-2	5.8	30
46	Development of a highly selective fluorescence probe for alkaline phosphatase. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2011</b> , 21, 5088-91	2.9	30
45	Development of Azo-Based Fluorescent Probes to Detect Different Levels of Hypoxia. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 13266-13270	3.6	29
44	Development of an Azoreductase-based Reporter System with Synthetic Fluorogenic Substrates. <i>ACS Chemical Biology</i> , <b>2017</b> , 12, 558-563	4.9	28
43	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> , <b>2014</b> , 20, 10397-403	4.8	28

42	Development of a potassium ion-selective fluorescent sensor based on 3-styrylated BODIPY. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2011</b> , 21, 6090-3	2.9	28
41	A time-resolved fluorescence probe for dipeptidyl peptidase 4 and its application in inhibitor screening. <i>Chemistry - A European Journal</i> , <b>2010</b> , 16, 13479-86	4.8	28
40	Rational development of caged-biotin protein-labeling agents and some applications in live cells. <i>Chemistry and Biology</i> , <b>2011</b> , 18, 1261-72		27
39	Diced electrophoresis gel assay for screening enzymes with specified activities. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 6002-5	16.4	25
38	Salicylic-acid derivatives as antennae for ratiometric luminescent probes based on lanthanide complexes. <i>Chemistry - A European Journal</i> , <b>2012</b> , 18, 7377-81	4.8	24
37	Synthesis of unsymmetrical Si-rhodamine fluorophores and application to a far-red to near-infrared fluorescence probe for hypoxia. <i>Chemical Communications</i> , <b>2018</b> , 54, 6939-6942	5.8	23
36	Practical fluorescence detection of acrolein in human plasma via a two-step tethering approach. <i>Chemical Communications</i> , <b>2014</b> , 50, 14946-8	5.8	21
35	Detection of NAD(P)H-dependent enzyme activity with dynamic luminescence quenching of terbium complexes. <i>Chemical Communications</i> , <b>2015</b> , 51, 8319-22	5.8	20
34	Development of practical red fluorescent probe for cytoplasmic calcium ions with greatly improved cell-membrane permeability. <i>Cell Calcium</i> , <b>2016</b> , 60, 256-65	4	20
33	Artificial Ligands of Streptavidin (ALiS): Discovery, Characterization, and Application for Reversible Control of Intracellular Protein Transport. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 10464-7	16.4	19
32	Sensitive detection of acrolein in serum using time-resolved luminescence. <i>Organic Letters</i> , <b>2010</b> , 12, 1704-7	6.2	18
31	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> , <b>2015</b> , 137, 12187-90	16.4	17
30	TokyoGreen derivatives as specific and practical fluorescent probes for UDP-glucuronosyltransferase (UGT) 1A1. <i>Chemical Communications</i> , <b>2013</b> , 49, 3101-3	5.8	17
29	Selective Ablation of $\beta$ -Galactosidase-Expressing Cells with a Rationally Designed Activatable Photosensitizer. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 6890-6893	3.6	17
28	In situ evaluation of kinetic resolution catalysts for nitroaldol by rationally designed fluorescence probe. <i>Journal of Organic Chemistry</i> , <b>2011</b> , 76, 3616-25	4.2	17
27	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> , <b>2017</b> , 139, 3465-3472	16.4	14
26	Unexpected Photo-instability of 2,6-Sulfonamide-Substituted BODIPYs and Its Application to Caged GABA. <i>ChemBioChem</i> , <b>2016</b> , 17, 1233-40	3.8	12
25	Development of a novel fluorescent probe for fluorescence correlation spectroscopic detection of kinase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2008</b> , 18, 3752-5	2.9	12

24	In vitro selection of random peptides against artificial lipid bilayers: a potential tool to immobilize molecules on membranes. <i>Chemical Communications</i> , <b>2017</b> , 53, 3458-3461	5.8	11
23	Development of Chemical Tools to Monitor and Control Isoaspartyl Peptide Methyltransferase Activity. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 153-157	16.4	11
22	A novel immuno-PCR method using cDNA display. <i>Analytical Biochemistry</i> , <b>2019</b> , 578, 1-6	3.1	10
21	A design strategy for small molecule-based targeted MRI contrast agents: their application for detection of atherosclerotic plaques. <i>Organic and Biomolecular Chemistry</i> , <b>2014</b> , 12, 8611-8	3.9	10
20	Development of a Sensitive Bioluminogenic Probe for Imaging Highly Reactive Oxygen Species in Living Rats. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 14981-14984	3.6	10
19	Selection of Peptides that Associate with Dye-Conjugated Solid Surfaces in a pH-Dependent Manner Using cDNA Display. <i>ACS Omega</i> , <b>2019</b> , 4, 7378-7384	3.9	9
18	Selective two-step labeling of proteins with an off/on fluorescent probe. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 14763-71	4.8	9
17	Discovery of a pyruvylated peptide-metabolizing enzyme using a fluorescent substrate-based protein discovery technique. <i>Chemical Communications</i> , <b>2016</b> , 52, 4377-80	5.8	7
16	Red Fluorescent Probe for Monitoring the Dynamics of Cytoplasmic Calcium Ions. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 3966-3969	3.6	7
15	A protein-coupled fluorescent probe for organelle-specific imaging of Na <sup>+</sup> . <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 265, 575-581	8.5	6
14	Rapidly rendering cells phagocytic through a cell surface display technique and concurrent Rac activation. <i>Science Signaling</i> , <b>2014</b> , 7, rs4	8.8	6
13	In vitro selection of anti-gliadin single-domain antibodies from a naïve library for cDNA-display mediated immuno-PCR. <i>Analytical Biochemistry</i> , <b>2020</b> , 589, 113490	3.1	6
12	Identification of Lung Inflammation-Related Elevation of Acylamino Acid Releasing Enzyme (APEH) Activity Using an Enzymomics Approach. <i>Chemical and Pharmaceutical Bulletin</i> , <b>2016</b> , 64, 1533-1538	1.9	5
11	Fluorometric assay of integrin activity with a small-molecular probe that senses the binding site microenvironment. <i>Chemical Communications</i> , <b>2014</b> , 50, 15894-6	5.8	5
10	Detection of NAD(P)H-dependent enzyme activity by time-domain ratiometry of terbium luminescence. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2016</b> , 26, 2314-7	2.9	5
9	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> , <b>2017</b> , 14, 23-28	1.4	4
8	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> , <b>2020</b> , 22, 165-171	3.9	2
7	Photocrosslinking of cDNA Display Molecules with Their Target Proteins as a New Strategy for Peptide Selection. <i>Molecules</i> , <b>2020</b> , 25,	4.8	2

6	Site-specific oxidative stress induction. <i>Chemistry and Biology</i> , <b>2007</b> , 14, 877-8		2
5	cDNA Display Mediated Immuno-PCR (cD-IPCR): A Novel PCR-based Antigen Detection Method. <i>Bio-protocol</i> , <b>2019</b> , 9, e3457	0.9	2
4	Development of Chemical Tools to Monitor and Control Isoaspartyl Peptide Methyltransferase Activity. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 159-163	3.6	1
3	Synthesis of practical red fluorescent probe for cytoplasmic calcium ions with greatly improved cell-membrane permeability. <i>Data in Brief</i> , <b>2017</b> , 12, 351-357	1.2	1
2	Improving the Solubility of Artificial Ligands of Streptavidin to Enable More Practical Reversible Switching of Protein Localization in Cells. <i>ChemBioChem</i> , <b>2017</b> , 18, 358-362	3.8	0
1	Interleukin-17A Peptide Aptamers with an Unexpected Binding Moiety Selected by cDNA Display under Heterogenous Conditions. <i>ACS Medicinal Chemistry Letters</i> , <b>2021</b> , 12, 1427-1434	4.3	0