Takuya Miyakawa

List of Publications by Citations

91 papers	2,762 citations	23 h-index	51 g-index
97 ext. papers	3,429 ext. citations	6.6 avg, IF	4.92 L-index

#	Paper	IF	Citations
91	Molecular basis of the core regulatory network in ABA responses: sensing, signaling and transport. *Plant and Cell Physiology*, **2010**, 51, 1821-39	4.9	612
90	Structural basis of abscisic acid signalling. *Nature*, **2009**, 462, 609-14	50.4	406
89	Molecular mechanism of strigolactone perception by DWARF14. *Nature Communications*, **2013**, 4, 2613	17.4	245
88	Structure and function of abscisic acid receptors. *Trends in Plant Science*, **2013**, 18, 259-66	13.1	126
87	Roasting process of coffee beans as studied by nuclear magnetic resonance: time course of changes in composition. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 1005-12	5.7	103
86	(13)C NMR-based metabolomics for the classification of green coffee beans according to variety and origin. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 10118-25	5.7	89
85	Structural basis for the Ca(2+)-enhanced thermostability and activity of PET-degrading cutinase-like enzyme from Saccharomonospora viridis AHK190. *Applied Microbiology and Biotechnology*, **2015**, 99, 4297-307	5.7	70
84	Complex mixture analysis of organic compounds in green coffee bean extract by two-dimensional NMR spectroscopy. *Magnetic Resonance in Chemistry*, **2010**, 48, 857-65	2.1	65
83	Comprehensive NMR analysis of compositional changes of black garlic during thermal processing. *Journal of Agricultural and Food Chemistry*, **2015**, 63, 683-91	5.7	64
82	Metabolic discrimination of mango juice from various cultivars by band-selective NMR spectroscopy. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 1158-66	5.7	50
81	A pilot study of NMR-based sensory prediction of roasted coffee bean extracts. *Food Chemistry*, **2014**, 152, 363-9	8.5	47
80	A secreted protein with plant-specific cysteine-rich motif functions as a mannose-binding lectin that exhibits antifungal activity. *Plant Physiology*, **2014**, 166, 766-78	6.6	43
79	Structural analysis of HTL and D14 proteins reveals the basis for ligand selectivity in Striga. *Nature Communications*, **2018**, 9, 3947	17.4	43
78	Two-dimensional 1H-13C nuclear magnetic resonance (NMR)-based comprehensive analysis of roasted coffee bean extract. *Journal of Agricultural and Food Chemistry*, **2011**, 59, 9065-73	5.7	42
77	NMR-based metabolomics for simultaneously evaluating multiple determinants of primary beef quality in Japanese Black cattle. *Scientific Reports*, **2017**, 7, 1297	4.9	41
76	Structural basis of unique ligand specificity of KAI2-like protein from parasitic weed Striga hermonthica. *Scientific Reports*, **2016**, 6, 31386	4.9	38
75	A new target region for changing the substrate specificity of amine transaminases. *Scientific Reports*, **2015**, 5, 10753	4.9	36

74	Crystal structure of ginkbilobin-2 with homology to the extracellular domain of plant cysteine-rich receptor-like kinases. *Proteins: Structure, Function and Bioinformatics*, **2009**, 77, 247-51	4.2	29
73	Development of an Azoreductase-based Reporter System with Synthetic Fluorogenic Substrates. *ACS Chemical Biology*, **2017**, 12, 558-563	4.9	28
72	MEATabolomics: Muscle and Meat Metabolomics in Domestic Animals. *Metabolites*, **2020**, 10,	5.6	28
71	Enzymes useful for chiral compound synthesis: structural biology, directed evolution, and protein engineering for industrial use. *Applied Microbiology and Biotechnology*, **2016**, 100, 5747-57	5.7	26
70	A sequence-specific DNA glycosylase mediates restriction-modification in Pyrococcus abyssi. *Nature Communications*, **2014**, 5, 3178	17.4	23
69	Triazole Ureas Covalently Bind to Strigolactone Receptor and Antagonize Strigolactone Responses. *Molecular Plant*, **2019**, 12, 44-58	14.4	23
68	Structure and Polymannuronate Specificity of a Eukaryotic Member of Polysaccharide Lyase Family 14. *Journal of Biological Chemistry*, **2017**, 292, 2182-2190	5.4	21
67	Loss of IDH2 Accelerates Age-related Hearing Loss in Male Mice. *Scientific Reports*, **2018**, 8, 5039	4.9	21
66	NMR-based metabolic profiling of rice wines by F(2)-selective total correlation spectra. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 4818-25	5.7	21
65	GSTA4 mediates reduction of cisplatin ototoxicity in female mice. *Nature Communications*, **2019**, 10, 4150	17.4	20
64	Control of the localization and function of a miRNA silencing component TNRC6A by Argonaute protein. *Nucleic Acids Research*, **2015**, 43, 9856-73	20.1	20
63	Different Ca□+-sensitivities between the EF-hands of T- and L-plastins. *Biochemical and Biophysical Research Communications*, **2012**, 429, 137-41	3.4	17
62	Overview of the mechanism of cytoskeletal motors based on structure. *Biophysical Reviews*, **2018**, 10, 571-581	3.7	17
61	Studies on the regulatory mechanism of isocitrate dehydrogenase 2 using acetylation mimics. *Scientific Reports*, **2017**, 7, 9785	4.9	16
60	Structural basis for brassinosteroid response by BIL1/BZR1. *Nature Plants*, **2018**, 4, 771-776	11.5	16
59	Laminarinase from Flavobacterium sp. reveals the structural basis of thermostability and substrate specificity. *Scientific Reports*, **2017**, 7, 11425	4.9	15
58	Structural optimization of SadA, an Fe(II)- and □ketoglutarate-dependent dioxygenase targeting biocatalytic synthesis of N-succinyl-L-threo-3,4-dimethoxyphenylserine. *Biochemical and Biophysical Research Communications*, **2014**, 450, 1458-61	3.4	14
57	L-allo-threonine aldolase with an H128Y/S292R mutation from Aeromonas jandaei DK-39 reveals the structural basis of changes in substrate stereoselectivity. *Acta Crystallographica Section D: Biological Crystallography*, **2014**, 70, 1695-703		14

56	Complex Mixture Analysis of Organic Compounds in Yogurt by NMR Spectroscopy. *Metabolites*, **2016**, 6,	5.6	14
55	Rationally Designed Strigolactone Analogs as Antagonists of the D14 Receptor. *Plant and Cell Physiology*, **2018**, 59, 1545-1554	4.9	13
54	Crystal structure of the YjgF/YER057c/UK114 family protein from the hyperthermophilic archaeon Sulfolobus tokodaii strain 7. *Proteins: Structure, Function and Bioinformatics*, **2006**, 62, 557-61	4.2	13
53	Structural bases of IMiD selectivity that emerges by 5-hydroxythalidomide. *Nature Communications*, **2020**, 11, 4578	17.4	13
52	Use of NMR-Based Metabolomics To Chemically Characterize the Roasting Process of Chicory Root. *Journal of Agricultural and Food Chemistry*, **2016**, 64, 6459-6465	5.7	13
51	Yam Tuber Storage Protein Reduces Plant Oxidants Using the Coupled Reactions as Carbonic Anhydrase and Dehydroascorbate Reductase. *Molecular Plant*, **2015**, 8, 1115-8	14.4	12
50	Structural basis for high substrate-binding affinity and enantioselectivity of 3-quinuclidinone reductase AtQR. *Biochemical and Biophysical Research Communications*, **2014**, 446, 911-5	3.4	11
49	Crystal Structure of Human Leukocyte Cell-derived Chemotaxin 2 (LECT2) Reveals a Mechanistic Basis of Functional Evolution in a Mammalian Protein with an M23 Metalloendopeptidase Fold. *Journal of Biological Chemistry*, **2016**, 291, 17133-42	5.4	10
48	Splenic stromal cells from aged mice produce higher levels of IL-6 compared to young mice. *Mediators of Inflammation*, **2014**, 2014, 826987	4.3	10
47	Real-Time Monitoring of Chemical Changes in Three Kinds of Fermented Milk Products during Fermentation Using Quantitative Difference Nuclear Magnetic Resonance Spectroscopy. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 1479-1487	5.7	9
46	Crystallization and preliminary X-ray analysis of ginkbilobin-2 from Ginkgo biloba seeds: a novel antifungal protein with homology to the extracellular domain of plant cysteine-rich receptor-like kinases. *Acta Crystallographica Section F: Structural Biology Communications*, **2007**, 63, 737-9		9
45	NMR-based analysis of the chemical composition of Japanese persimmon aqueous extracts. *Magnetic Resonance in Chemistry*, **2016**, 54, 213-21	2.1	8
44	Different DNA-binding specificities of NLP and NIN transcription factors underlie nitrate-induced control of root nodulation. *Plant Cell*, **2021**, 33, 2340-2359	11.6	8
43	Engineering a short-chain dehydrogenase/reductase for the stereoselective production of (2S,3R,4S)-4-hydroxyisoleucine with three asymmetric centers. *Scientific Reports*, **2017**, 7, 13703	4.9	7
42	Expression, purification, refolding, and enzymatic characterization of two secretory phospholipases A from Neurospora crassa. *Protein Expression and Purification*, **2015**, 115, 69-75	2	7
41	Functional production of human antibody by the filamentous fungus. *Fungal Biology and Biotechnology*, **2020**, 7, 7	7.5	7
40	Quantification of terpene trilactones in Ginkgo biloba with a H NMR method. *Journal of Natural Medicines*, **2018**, 72, 793-797	3.3	7
39	Electron microscopic recording of myosin head power stroke in hydrated myosin filaments. *Scientific Reports*, **2015**, 5, 15700	4.9	7

38	Regulatory mechanism of abscisic acid signaling. *Biophysics (Nagoya-shi, Japan)*, **2011**, 7, 123-128		7
37	Comprehensive NMR analysis of two kinds of post-fermented tea and their anti-glycation activities in vitro. *Food Chemistry*, **2019**, 277, 735-743	8.5	7
36	Definite differences between in vitro actin-myosin sliding and muscle contraction as revealed using antibodies to myosin head. *PLoS ONE*, **2014**, 9, e93272	3.7	6
35	Antioxidant properties and inhibition of angiotensin-converting enzyme by highly active peptides from wheat gluten. *Scientific Reports*, **2021**, 11, 5206	4.9	6
34	Characterization of the Ca-coordination structures of L- and T-plastins in combination with their synthetic peptide analogs by FTIR spectroscopy. *Scientific Reports*, **2019**, 9, 4217	4.9	5
33	Structural Basis for Action of the External Chaperone for a Propeptide-deficient Serine Protease from Aeromonas sobria. *Journal of Biological Chemistry*, **2015**, 290, 11130-43	5.4	5
32	Crystal structure of a Ca-dependent regulator of flagellar motility reveals the open-closed structural transition. *Scientific Reports*, **2018**, 8, 2014	4.9	5
31	Broadband WET: a novel technique for quantitative characterization of minor components in foods. *Magnetic Resonance in Chemistry*, **2014**, 52, 333-8	2.1	5
30	Structural basis for the regulation of phytohormone receptors. *Bioscience, Biotechnology and Biochemistry*, **2017**, 81, 1261-1273	2.1	4
29	Quantitation of Minor Components in Mango Juice with Band-Selective Excitation NMR Spectroscopy. *Journal of Agricultural and Food Chemistry*, **2017**, 65, 9547-9552	5.7	4
28	NMR-based metabolic profiling and comparison of Japanese persimmon cultivars. *Scientific Reports*, **2019**, 9, 15011	4.9	4
27	NIGT1 family proteins exhibit dual mode DNA recognition to regulate nutrient response-associated genes in Arabidopsis. *PLoS Genetics*, **2020**, 16, e1009197	6	4
26	Metabolic profiling of natural and cultured Cordyceps by NMR spectroscopy. *Scientific Reports*, **2019**, 9, 7735	4.9	3
25	A thermoacidophile-specific protein family, DUF3211, functions as a fatty acid carrier with novel binding mode. *Journal of Bacteriology*, **2013**, 195, 4005-12	3.5	3
24	Crystallization and preliminary X-ray analysis of the YjgF/YER057c/UK114-family protein ST0811 from Sulfolobus tokodaii strain 7. *Acta Crystallographica Section F: Structural Biology Communications*, **2005**, 61, 828-30		3
23	Gene co-expression network analysis identifies BEH3 as a stabilizer of secondary vascular development in Arabidopsis. *Plant Cell*, **2021**, 33, 2618-2636	11.6	3
22	Molecular basis of strigolactone perception in root-parasitic plants: aiming to control its germination with strigolactone agonists/antagonists. *Cellular and Molecular Life Sciences*, **2020**, 77, 1103-1113	10.3	3
21	Intestinal regulatory T cell induction by β-elemene alleviates the formation of fat tissue-related inflammation. *IScience*, **2021**, 24, 101883	6.1	3

20	Molecular Basis for Substrate Recognition and Catalysis by a Marine Bacterial Laminarinase. *Applied and Environmental Microbiology*, **2020**, 86,	4.8	2
19	Evaluation of spice and herb as phyto-derived selective modulators of human retinaldehyde dehydrogenases using a simple in vitro method. *Bioscience Reports*, **2021**, 41,	4.1	2
18	Structural comparisons of phosphoenolpyruvate carboxykinases reveal the evolutionary trajectories of these phosphodiester energy conversion enzymes. *Journal of Biological Chemistry*, **2019**, 294, 19269-19278	5.4	2
17	NMR-Based Metabolomics of Foods379-387		2
16	Analysis of Weak Affinity of □-D-Fructofuranosyl-(2<-Φ)-2-acetamido-2-deoxy-□D-glucopyranoside for Yeast □-Fructofuranosidase Using NMR Spectroscopy. *Journal of Carbohydrate Chemistry*, **2014**, 33, 498-505	1.7	1
15	Age-Dependent Decrease in the Induction of Regulatory T Cells Is Associated With Decreased Expression of RALDH2 in Mesenteric Lymph Node Dendritic Cells. *Frontiers in Immunology*, **2020**, 11, 1555	8.4	1
14	□-Elemene Suppresses Obesity-Induced Imbalance in the Microbiota-Gut-Brain Axis. *Biomedicines*, **2021**, 9,	4.8	1
13	Structural basis of different substrate preferences of two old yellow enzymes from yeasts in the asymmetric reduction of enone compounds. *Bioscience, Biotechnology and Biochemistry*, **2019**, 83, 456-462	2.1	1
12	Crystallization and melting properties studied by DSC and FTIR spectroscopy of goldenberry (Physalis peruviana) oil. *Food Chemistry*, **2022**, 366, 130645	8.5	1
11	Induction of Oral Tolerance by Pepsin-Digested Gliadin Retaining T Cell Reactivity in a Mouse Model of Wheat Allergy. *International Archives of Allergy and Immunology*, **2020**, 181, 446-455	3.7	0
10	Isolation and characterization of oligopeptides with vascular disease suppression effects derived from wheat gluten. *Journal of Food Science and Technology*, **2021**, 58, 3504-3513	3.3	0
9	Highlighting the potential utility of MBP crystallization chaperone for Arabidopsis BIL1/BZR1 transcription factor-DNA complex. *Scientific Reports*, **2021**, 11, 3879	4.9	0
8	Identification of the Effects of Chondroitin Sulfate on Inhibiting CDKs in Colorectal Cancer Based on Bioinformatic Analysis and Experimental Validation. *Frontiers in Oncology*, **2021**, 11, 705939	5.3	0
7	Preparation of the Extracellular Domain of Recombinant Human Toll-like Receptor 6. *Protein Journal*, **2017**, 36, 28-35	3.9	
6	2P077 Different Ca2+-sensitivities between the EF-hands of T- and L-plastins(01D. Protein: Function,Poster,The 52nd Annual Meeting of the Biophysical Society of Japan(BSJ2014)). *Seibutsu Butsuri*, **2014**, 54, S207	0	
5	1P012 Structural analysis for substrate recognition of carbonyl reductase S1(Protein:Structure,The 48th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2010**, 50, S21	0	
4	1P046 1YA1045 Structural basis of abscisic acid signaling(Protein:Structure & Function,Early Research in Biophysics Award Candidate Presentations,Early Research in Biophysics Award,The 48th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2010**, 50, S27	0	
3	II-1. Structural biology of proteins from aquatic organisms. *Nippon Suisan Gakkaishi*, **2017**, 83, 819-819	0.2	

2	Recent Progress in Abscisic Acid Receptor Research. *Seibutsu Butsuri*, **2011**, 51, 026-027	0
1	Improved preparation of group-specific component (Gc) protein to derive macrophage activating factor. *Protein Expression and Purification*, **2020**, 175, 105714	2