Masayoshi Tanaka

List of Publications by Year in descending order

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109321 102487 4,941 128 35 66 citations g-index h-index papers 131 131 131 5161 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	A Novel Protein Tightly Bound to Bacterial Magnetic Particles in Magnetospirillum magneticum Strain AMB-1. Journal of Biological Chemistry, 2003, 278, 8745-8750.	3.4	342
2	Size-Selective Microcavity Array for Rapid and Efficient Detection of Circulating Tumor Cells. Analytical Chemistry, 2010, 82, 6629-6635.	6.5	309
3	Controlled formation of magnetite crystal by partial oxidation of ferrous hydroxide in the presence of recombinant magnetotactic bacterial protein Mms6. Biomaterials, 2007, 28, 5381-5389.	11.4	241
4	Formation of magnetite by bacteria and its application. Journal of the Royal Society Interface, 2008, 5, 977-999.	3.4	218
5	Synthesis of magnetic nanoparticles and their application to bioassays. Analytical and Bioanalytical Chemistry, 2006, 384, 593-600.	3.7	166
6	MMS6 Protein Regulates Crystal Morphology during Nano-sized Magnetite Biomineralization in Vivo. Journal of Biological Chemistry, 2011, 286, 6386-6392.	3.4	155
7	Desulfovibrio magneticus sp. nov., a novel sulfate-reducing bacterium that produces intracellular single-domain-sized magnetite particles International Journal of Systematic and Evolutionary Microbiology, 2002, 52, 215-221.	1.7	152
8	Oil Accumulation by the Oleaginous Diatom <i>Fistulifera solaris</i> as Revealed by the Genome and Transcriptome. Plant Cell, 2015, 27, 162-176.	6.6	149
9	Biomineralization-inspired synthesis of functional organic/inorganic hybrid materials: organic molecular control of self-organization of hybrids. Organic and Biomolecular Chemistry, 2015, 13, 974-989.	2.8	139
10	Origin of magnetosome membrane: Proteomic analysis of magnetosome membrane and comparison with cytoplasmic membrane. Proteomics, 2006, 6, 5234-5247.	2.2	136
11	Control of the morphology and size of magnetite particles with peptides mimicking the Mms6 protein from magnetotactic bacteria. Journal of Colloid and Interface Science, 2010, 343, 65-70.	9.4	124
12	Toughening mechanisms of the elytra of the diabolical ironclad beetle. Nature, 2020, 586, 543-548.	27.8	121
13	Molecular analysis of magnetotactic bacteria and development of functional bacterial magnetic particles for nano-biotechnology. Trends in Biotechnology, 2007, 25, 182-188.	9.3	115
14	DNA extraction using bacterial magnetic particles modified with hyperbranched polyamidoamine dendrimer. Journal of Biotechnology, 2003, 101, 219-228.	3.8	108
15	Whole genome sequence of <i>Desulfovibrio magneticus</i> strain RS-1 revealed common gene clusters in magnetotactic bacteria. Genome Research, 2009, 19, 1801-1808.	5.5	103
16	Identifying Single Viruses Using Biorecognition Solid-State Nanopores. Journal of the American Chemical Society, 2018, 140, 16834-16841.	13.7	81
17	Fully automated DNA extraction from blood using magnetic particles modified with a hyperbranched polyamidoamine dendrimer. Journal of Bioscience and Bioengineering, 2003, 95, 21-26.	2.2	78
18	Crystallization by particle attachment is a colloidal assembly process. Nature Materials, 2020, 19, 391-396.	27.5	78

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19	High-Density Microcavity Array for Cell Detection: Single-Cell Analysis of Hematopoietic Stem Cells in Peripheral Blood Mononuclear Cells. Analytical Chemistry, 2009, 81, 5308-5313.	6.5	74
20	Selective detections of single-viruses using solid-state nanopores. Scientific Reports, 2018, 8, 16305.	3.3	65
21	Magnetic bacterial protein Mms6 controls morphology, crystallinity and magnetism of cobalt-doped magnetite nanoparticles in vitro. Journal of Materials Chemistry, 2011, 21, 15244.	6.7	63
22	Altererythrobacter ishigakiensis sp. nov., an astaxanthin-producing bacterium isolated from a marine sediment. International Journal of Systematic and Evolutionary Microbiology, 2011, 61, 2956-2961.	1.7	63
23	A Bioinspired Coprecipitation Method for the Controlled Synthesis of Magnetite Nanoparticles. Crystal Growth and Design, 2014, 14, 5561-5568.	3.0	61
24	Single-nucleotide polymorphism analysis using fluorescence resonance energy transfer between DNA-labeling fluorophore, fluorescein isothiocyanate, and DNA intercalator, POPO-3, on bacterial magnetic particles. Biotechnology and Bioengineering, 2003, 84, 96-102.	3.3	60
25	Coâ€ordinated functions of <scp>Mms</scp> proteins define the surface structure of cuboâ€octahedral magnetite crystals in magnetotactic bacteria. Molecular Microbiology, 2014, 93, 554-567.	2.5	58
26	High-Efficiency Single-Cell Entrapment and Fluorescence in Situ Hybridization Analysis Using a Poly(dimethylsiloxane) Microfluidic Device Integrated with a Black Poly(ethylene terephthalate) Micromesh. Analytical Chemistry, 2008, 80, 5139-5145.	6.5	57
27	Proteomics Analysis of Oil Body-Associated Proteins in the Oleaginous Diatom. Journal of Proteome Research, 2013, 12, 5293-5301.	3.7	56
28	Enhancement of glycerol metabolism in the oleaginous marine diatom Fistulifera solaris JPCC DA0580 to improve triacylglycerol productivity. Biotechnology for Biofuels, 2015, 8, 4.	6.2	56
29	Microfluidic-based capture and release of cancer-derived exosomes ⟨i>via⟨ i> peptide–nanowire hybrid interface. Lab on A Chip, 2021, 21, 597-607.	6.0	56
30	Identification and functional characterization of liposome tubulation protein from magnetotactic bacteria. Molecular Microbiology, 2010, 76, 480-488.	2.5	49
31	Detection of biomolecular interaction between biotin and streptavidin on a self-assembled monolayer using magnetic nanoparticles. Biotechnology and Bioengineering, 2004, 88, 543-546.	3.3	47
32	Simultaneously Discrete Biomineralization of Magnetite and Tellurium Nanocrystals in Magnetotactic Bacteria. Applied and Environmental Microbiology, 2010, 76, 5526-5532.	3.1	42
33	A process design and productivity evaluation for oil production by indoor mass cultivation of a marine diatom, Fistulifera sp. JPCC DA0580. Bioresource Technology, 2013, 137, 132-138.	9.6	42
34	Highly Selective Rational Design of Peptide-Based Surface Plasmon Resonance Sensor for Direct Determination of 2,4,6-trinitrotoluene (TNT) Explosive. Sensors and Actuators B: Chemical, 2018, 264, 279-284.	7.8	41
35	Highest levels of Cu, Mn and Co doped into nanomagnetic magnetosomes through optimized biomineralisation. Journal of Materials Chemistry, 2012, 22, 11919.	6.7	40
36	Cadmium Recovery by a Sulfate-Reducing Magnetotactic Bacterium, Desulfovibrio magneticus RS-1, Using Magnetic Separation. Applied Biochemistry and Biotechnology, 2002, 98-100, 833-840.	2.9	36

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37	Methods of Analyzing Microsized Plastics in the Environment. Applied Sciences (Switzerland), 2021, 11, 10640.	2.5	35
38	Biomagnetic Recovery and Bioaccumulation of Selenium Granules in Magnetotactic Bacteria. Applied and Environmental Microbiology, 2016, 82, 3886-3891.	3.1	34
39	Identification of Individual Bacterial Cells through the Intermolecular Interactions with Peptide-Functionalized Solid-State Pores. Analytical Chemistry, 2018, 90, 1511-1515.	6.5	34
40	Detection of Cryptosporidium parvum oocysts using a microfluidic device equipped with the SUS micromesh and FITC-labeled antibody. Biotechnology and Bioengineering, 2007, 96, 272-280.	3.3	33
41	Proteomic analysis of irregular, bulletâ€shaped magnetosomes in the sulphateâ€reducing magnetotactic bacterium <i>Desulfovibrio magneticus</i> RSâ€1. Proteomics, 2009, 9, 3341-3352.	2.2	32
42	Bioinspired Magnetite Crystallization Directed by Random Copolypeptides. Advanced Functional Materials, 2015, 25, 711-719.	14.9	32
43	Effect of magnetite nanoparticles on living rate of MCF-7 human breast cancer cells. Colloids and Surfaces B: Biointerfaces, 2012, 95, 254-257.	5.0	30
44	Array-Based Rational Design of Short Peptide Probe-Derived from an Anti-TNT Monoclonal Antibody. ACS Combinatorial Science, 2017, 19, 625-632.	3.8	29
45	Development of silver/graphene oxide nanocomposites for antibacterial and antibiofilm applications. Journal of Industrial and Engineering Chemistry, 2020, 83, 46-52.	5.8	29
46	Preparation of Genomic DNA from a Single Species of Uncultured Magnetotactic Bacterium by Multiple-Displacement Amplification. Applied and Environmental Microbiology, 2010, 76, 1480-1485.	3.1	28
47	Control of magnetite nanocrystal morphology in magnetotactic bacteria by regulation of mms7 gene expression. Scientific Reports, 2016, 6, 29785.	3.3	28
48	Characterization of magnetic nanoparticles modified with thiol functionalized PAMAM dendron for DNA recovery. Journal of Colloid and Interface Science, 2012, 377, 469-475.	9.4	27
49	Inhalable nanoparticles delivery targeting alveolar macrophages for the treatment of pulmonary tuberculosis. Journal of Bioscience and Bioengineering, 2021, 132, 543-551.	2.2	27
50	Comparative Subcellular Localization Analysis of Magnetosome Proteins Reveals a Unique Localization Behavior of Mms6 Protein onto Magnetite Crystals. Journal of Bacteriology, 2016, 198, 2794-2802.	2.2	26
51	Array-based functional peptide screening and characterization of gold nanoparticle synthesis. Acta Biomaterialia, 2017, 49, 495-506.	8.3	25
52	Preparation of luciferase-bacterial magnetic particle complex by artificial integration of MagA-luciferase fusion protein into the bacterial magnetic particle membrane. Biotechnology and Bioengineering, 2002, 77, 614-618.	3.3	24
53	Effective expression of human proteins on bacterial magnetic particles in an anchor gene deletion mutant of Magnetospirillum magneticum AMB-1. Biochemical and Biophysical Research Communications, 2012, 426, 7-11.	2.1	23
54	Development of a Cell Surface Display System in a Magnetotactic Bacterium, " <i>Magnetospirillum magneticum</i> ―AMB-1. Applied and Environmental Microbiology, 2008, 74, 3342-3348.	3.1	22

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55	A bioinspired peptide matrix for the detection of 2,4,6-trinitrotoluene (TNT). Biosensors and Bioelectronics, 2020, 153, 112030.	10.1	21
56	Biologically synthesized or bioinspired process-derived iron oxides as catalysts for living cationic polymerization of a vinyl ether. Chemical Communications, 2012, 48, 10904.	4.1	20
57	Identification and Functional Analysis of Delta-9 Desaturase, a Key Enzyme in PUFA Synthesis, Isolated from the Oleaginous Diatom Fistulifera. PLoS ONE, 2013, 8, e73507.	2.5	20
58	Core Amino Acid Residues in the Morphology-Regulating Protein, Mms6, for Intracellular Magnetite Biomineralization. Scientific Reports, 2016, 6, 35670.	3.3	20
59	Screening of peptides associated with adhesion and aggregation of Lactobacillus rhamnosus GG in vitro. Biochemical Engineering Journal, 2017, 128, 178-185.	3.6	20
60	Microbial biodegradation of a novel fluorotelomer alcohol, 1H,1H,2H,2H,8H,8H-perfluorododecanol, yields short fluorinated acids. Applied Microbiology and Biotechnology, 2010, 88, 1193-1203.	3.6	18
61	Efficient DNA release from PAMAM dendrimer-modified superparamagnetic nanoparticles for DNA recovery. Polymer Journal, 2012, 44, 672-677.	2.7	18
62	An SPR Sensor Chip Based on Peptide-Modified Single-Walled Carbon Nanotubes with Enhanced Sensitivity and Selectivity in the Detection of 2,4,6-Trinitrotoluene Explosives. Sensors, 2018, 18, 4461.	3.8	18
63	Alginate-chitosan Hydrogel Patch with Beta-glucan Nanoemulsion for Antibacterial Applications. Biotechnology and Bioprocess Engineering, 2021, 26, 71-77.	2.6	17
64	Cytoplasmic ATPase involved in ferrous ion uptake from magnetotactic bacteriumMagnetospirillum magneticumAMB-1. FEBS Letters, 2007, 581, 3443-3448.	2.8	16
65	Glycosylceramides from marine green microalga Tetraselmis sp Phytochemistry, 2013, 85, 107-114.	2.9	16
66	Design of a dual-function peptide probe as a binder of angiotensin II and an inducer of silver nanoparticle aggregation for use in label-free colorimetric assays. Talanta, 2015, 142, 235-239.	5.5	16
67	Peptide-Functionalized Quantum Dots for Rapid Label-Free Sensing of 2,4,6-Trinitrotoluene. Bioconjugate Chemistry, 2020, 31, 1400-1407.	3.6	16
68	Fabrication of Lipid Tubules with Embedded Quantum Dots by Membrane Tubulation Protein. Small, 2012, 8, 1590-1595.	10.0	15
69	Integrated molecular analysis of the inactivation of a non-enveloped virus, feline calicivirus, by UV-C radiation. Journal of Bioscience and Bioengineering, 2018, 126, 63-68.	2.2	15
70	Capsid protein oxidation in feline calicivirus using an electrochemical inactivation treatment. Journal of Hazardous Materials, 2015, 283, 410-415.	12.4	14
71	Screening of bacteria-binding peptides and one-pot ZnO surface modification for bacterial cell entrapment. RSC Advances, 2018, 8, 8795-8799.	3.6	14
72	Radular stylus of Cryptochiton stelleri: A multifunctional lightweight and flexible fiber-reinforced composite. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 111, 103991.	3.1	14

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73	Identification of a frustule-associated protein of the marine pennate diatom Fistulifera sp. strain JPCC DA0580. Marine Genomics, 2014, 16, 39-44.	1.1	13
74	UV-C irradiation accelerates neutral lipid synthesis in the marine oleaginous diatom Fistulifera solaris. Bioresource Technology, 2017, 245, 1520-1526.	9.6	13
75	Rational screening of biomineralisation peptides for colour-selected one-pot gold nanoparticle syntheses. Nanoscale Advances, 2019, 1, 71-75.	4.6	13
76	Rational Design of Peptide-Functionalized Surface Plasmon Resonance Sensor for Specific Detection of TNT Explosive. Sensors, 2017, 17, 2249.	3.8	12
77	Enhanced Tubulation of Liposome Containing Cardiolipin by MamY Protein from Magnetotactic Bacteria. Biotechnology Journal, 2018, 13, 1800087.	3.5	12
78	Peptide Screening from a Phage Display Library for Benzaldehyde Recognition. Chemistry Letters, 2019, 48, 978-981.	1.3	12
79	Structural Design Variations in Beetle Elytra. Advanced Functional Materials, 2021, 31, 2106468.	14.9	12
80	Draft Genome Sequence of Marine Cyanobacterium <i>Synechococcus</i> sp. Strain NKBG15041c. Genome Announcements, 2013, 1, .	0.8	11
81	Biological Responses of Onion-Shaped Carbon Nanoparticles. Nanomaterials, 2019, 9, 1016.	4.1	11
82	Array-Based Screening of Silver Nanoparticle Mineralization Peptides. International Journal of Molecular Sciences, 2020, 21, 2377.	4.1	11
83	Inhibition of cancer-cell migration by tetraspanin CD9-binding peptide. Chemical Communications, 2021, 57, 4906-4909.	4.1	11
84	Mesocrystalline Ordering and Phase Transformation of Iron Oxide Biominerals in the Ultrahard Teeth of <i>Cryptochiton stelleri</i>). Small Structures, 2022, 3, .	12.0	11
85	Iron oxide crystal formation on a substrate modified with the Mms6 protein from magnetotactic bacteria. Materials Research Society Symposia Proceedings, 2009, 1187, 46.	0.1	10
86	Surface glycan targeting for cancer nano-immunotherapy. Journal of Controlled Release, 2022, 342, 321-336.	9.9	10
87	Solution Phase and Solid Supported Syntheses of End-Functionalized Poly(MMA) by Aldol-Type Reaction of Samarium(III) Enolate at the Chain End. Macromolecules, 2002, 35, 6845-6850.	4.8	9
88	TCRâ€Ĵ² repertoire analysis of antigenâ€specific single T cells using a highâ€density microcavity array. Biotechnology and Bioengineering, 2010, 106, 311-318.	3.3	9
89	Rapid Colorimetric Antibody Detection Using a Dual-function Peptide Probe for Silver Nanoparticle Aggregation and Antibody Recognition. Analytical Sciences, 2016, 32, 93-97.	1.6	9
90	Machine learning-driven electronic identifications of single pathogenic bacteria. Scientific Reports, 2020, 10, 15525.	3.3	9

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91	Characterization of particulate matter binding peptides screened from phage display. Journal of Bioscience and Bioengineering, 2017, 123, 621-624.	2.2	8
92	A molecular peptide beacon for IgG detection. RSC Advances, 2015, 5, 91988-91992.	3.6	7
93	Study and Evaluation of the Potential of Lipid Nanocarriers for Transdermal Delivery of siRNA. Biotechnology Journal, 2020, 15, e2000079.	3.5	7
94	Synthesis of near-infrared absorbing triangular Au nanoplates using biomineralisation peptides. Acta Biomaterialia, 2021, 131, 519-531.	8.3	7
95	Peptide-modified substrate enhances cell migration and migrasome formation. Materials Science and Engineering C, 2021, 131, 112495.	7.3	7
96	Detection of Her2-overexpressing cancer cells using keyhole shaped chamber array employing a magnetic droplet-handling system. Biosensors and Bioelectronics, 2017, 93, 32-39.	10.1	6
97	Proteomic Exploration of Membrane Curvature Sensors Using a Series of Spherical Supported Lipid Bilayers. Analytical Chemistry, 2020, 92, 16197-16203.	6.5	6
98	Unveiling characteristic proteins for the structural development of beetle elytra. Acta Biomaterialia, 2022, 140, 467-480.	8.3	6
99	Crystal Growth of Aspirin Using a Temperature-Controlled Microfluidic Device. Crystal Growth and Design, 2015, 15, 4549-4555.	3.0	5
100	DNA recovery from a single bacterial cell based on electrostatic interaction using amine dendron-modified magnetic nanoparticles. Electrochimica Acta, 2015, 168, 308-312.	5.2	5
101	Bacterial Inactivation by Applying an Alternating Electromagnetic Field Using PAMAM Dendron-modified Magnetic Nanoparticles. Electrochemistry, 2016, 84, 324-327.	1.4	5
102	<i>In situ</i> bioimaging of <i>Lactobacillus</i> by photoluminescence of MoS ₂ . 2D Materials, 2020, 7, 024002.	4.4	5
103	Restoration and Modification of Magnetosome Biosynthesis by Internal Gene Acquisition in a Magnetotactic Bacterium. Biotechnology Journal, 2020, 15, e2000278.	3.5	5
104	Methods and Applications of Biomolecular Surface Coatings on Individual Cells. ACS Applied Bio Materials, 2020, 3, 6556-6570.	4.6	5
105	Oxygen transport to mammalian cell and bacteria using nano-sized liposomes encapsulating oxygen molecules. Journal of Bioscience and Bioengineering, 2021, 132, 657-665.	2.2	5
106	Functionalization of Magnetotactic Bacteria for Microrobotic Applications. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	4
107	Screening of peptide probe binding to particulate matter with a high metal content. RSC Advances, 2018, 8, 5953-5959.	3.6	4
108	Template-free synthesis of Ta ₃ N ₅ hollow nanospheres as a visible-light-driven photocatalyst. Journal of Physics Communications, 2019, 3, 075010.	1.2	4

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109	Screening and characterisation of CdTe/CdS quantum dot-binding peptides for material surface functionalisation. RSC Advances, 2020, 10, 8218-8223.	3.6	4
110	Tracking Difference in Gene Expression in a Time-Course Experiment Using Gene Set Enrichment Analysis. PLoS ONE, 2014, 9, e107629.	2.5	4
111	Gold Biorecovery from Plating Waste by Magnetotactic Bacterium, Magnetospirillum magneticum AMB-1. Materials Research Society Symposia Proceedings, 2009, 1169, 312.	0.1	3
112	Molecular Mechanism of Magnetic Crystal Formation in Magnetotactic Bacteria., 2018,, 23-51.		3
113	Assemblies of bi-functional peptides on pyrolytic graphite for cell adhesion. Biochemical Engineering Journal, 2021, 170, 107988.	3.6	3
114	Quartz Crystal Microbalance Sensor Based on Peptide Anchored Single-Walled Carbon Nanotubes for Highly Selective TNT Explosive Detection., 2020,,.		3
115	Single nucleotide mismatch analysis using oligonucleotide probes synthesized on bacterial magnetic particle. New Biotechnology, 2003, 20, 305-309.	2.7	2
116	Controlled radical polymerization of styrene with magnetic iron oxides prepared through hydrothermal, bioinspired, and bacterial processes. RSC Advances, 2015, 5, 51122-51129.	3.6	2
117	Analysis of UV irradiation-induced cell settling of an oleaginous diatom, Fistulifera solaris, for efficient biomass recovery. Algal Research, 2020, 47, 101834.	4.6	2
118	Quantitative and time-course analysis of microbial degradation of 1H,1H,2H,2H,8H,8H–perfluorododecanol in activated sludge. Applied Microbiology and Biotechnology, 2017, 101, 8259-8266.	3.6	2
119	Quantitative Detection of Immunoreaction using Magnetite Nanoparticles and Raman Scattering Spectroscopy. E-Journal of Surface Science and Nanotechnology, 2008, 6, 142-146.	0.4	2
120	Structure and Function of Small Heat Shock Proteins from the Magnetotactic Bacterium Magnetospirillum magneticum AMB-1. Kobunshi Ronbunshu, 2010, 67, 698-704.	0.2	1
121	Systematic Screening and Deep Analysis of CoPt Binding Peptides Leads to Enhanced CoPt Nanoparticles Using Designed Peptides. Bioconjugate Chemistry, 2020, 31, 1981-1994.	3.6	1
122	Peptide array-based inhibition ELISA for evaluating antigenicity in infant formulas. Journal of Bioscience and Bioengineering, 2020, 130, 374-381.	2.2	1
123	Peptide-modified Microelectrode-based Potentiometric Device for 2,4,6-trinitrotoluene Molecule Detection. Sensors and Materials, 2019, 31, 2609.	0.5	1
124	Enrichment of membrane curvature-sensing proteins from Escherichia coli using spherical supported lipid bilayers. Journal of Bioscience and Bioengineering, 2022, 133, 98-104.	2.2	1
125	Reprint of: DNA recovery from a single bacterial cell based on electrostatic interaction using amine dendron-modified magnetic nanoparticles. Electrochimica Acta, 2015, 183, 143-147.	5.2	0
126	Comment: Non-classical nucleation towards separation and recycling science: Iron and aluminium (Oxy)(hydr)oxides. Current Opinion in Colloid and Interface Science, 2020, 46, 128-129.	7.4	0

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127	(Invited) Peptide Screening for the Regulation of Gold Nano-Biomineralization Using Peptide Array Technology. ECS Meeting Abstracts, 2020, MA2020-02, 2813-2813.	0.0	O
128	Singleâ€cell genotyping of phytoplankton from ocean water by gelâ€based cell manipulation. Biotechnology Journal, 2022, , 2100633.	3.5	0