

Atsushi Arakaki

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/12029710/publications.pdf>

Version: 2024-02-01

66
papers

3,772
citations

147801

31
h-index

128289

60
g-index

69
all docs

69
docs citations

69
times ranked

3750
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Protein Tightly Bound to Bacterial Magnetic Particles in <i>Magnetospirillum magneticum</i> Strain AMB-1. <i>Journal of Biological Chemistry</i> , 2003, 278, 8745-8750.	3.4	342
2	Size-Selective Microcavity Array for Rapid and Efficient Detection of Circulating Tumor Cells. <i>Analytical Chemistry</i> , 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. <i>Biomaterials</i> , 2007, 28, 5381-5389.	11.4	241
4	Formation of magnetite by bacteria and its application. <i>Journal of the Royal Society Interface</i> , 2008, 5, 977-999.	3.4	218
5	Synthesis of magnetic nanoparticles and their application to bioassays. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 384, 593-600.	3.7	166
6	MMS6 Protein Regulates Crystal Morphology during Nano-sized Magnetite Biomineralization in Vivo. <i>Journal of Biological Chemistry</i> , 2011, 286, 6386-6392.	3.4	155
7	<i>Desulfovibrio magneticus</i> sp. nov., a novel sulfate-reducing bacterium that produces intracellular single-domain-sized magnetite particles.. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2002, 52, 215-221.	1.7	152
8	Biomineralization-inspired synthesis of functional organic/inorganic hybrid materials: organic molecular control of self-organization of hybrids. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 974-989.	2.8	139
9	Origin of magnetosome membrane: Proteomic analysis of magnetosome membrane and comparison with cytoplasmic membrane. <i>Proteomics</i> , 2006, 6, 5234-5247.	2.2	136
10	Control of the morphology and size of magnetite particles with peptides mimicking the Mms6 protein from magnetotactic bacteria. <i>Journal of Colloid and Interface Science</i> , 2010, 343, 65-70.	9.4	124
11	Toughening mechanisms of the elytra of the diabolical ironclad beetle. <i>Nature</i> , 2020, 586, 543-548.	27.8	121
12	Molecular analysis of magnetotactic bacteria and development of functional bacterial magnetic particles for nano-biotechnology. <i>Trends in Biotechnology</i> , 2007, 25, 182-188.	9.3	115
13	DNA extraction using bacterial magnetic particles modified with hyperbranched polyamidoamine dendrimer. <i>Journal of Biotechnology</i> , 2003, 101, 219-228.	3.8	108
14	Whole genome sequence of <i>Desulfovibrio magneticus</i> strain RS-1 revealed common gene clusters in magnetotactic bacteria. <i>Genome Research</i> , 2009, 19, 1801-1808.	5.5	103
15	Fully automated DNA extraction from blood using magnetic particles modified with a hyperbranched polyamidoamine dendrimer. <i>Journal of Bioscience and Bioengineering</i> , 2003, 95, 21-26.	2.2	78
16	Crystallization by particle attachment is a colloidal assembly process. <i>Nature Materials</i> , 2020, 19, 391-396.	27.5	78
17	High-Density Microcavity Array for Cell Detection: Single-Cell Analysis of Hematopoietic Stem Cells in Peripheral Blood Mononuclear Cells. <i>Analytical Chemistry</i> , 2009, 81, 5308-5313.	6.5	74
18	Magnetic bacterial protein Mms6 controls morphology, crystallinity and magnetism of cobalt-doped magnetite nanoparticles in vitro. <i>Journal of Materials Chemistry</i> , 2011, 21, 15244.	6.7	63

#	ARTICLE	IF	CITATIONS
19	<i>Altererythro bacter ishigakiensis</i> sp. nov., an astaxanthin-producing bacterium isolated from a marine sediment. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2011, 61, 2956-2961.	1.7	63
20	A Bioinspired Coprecipitation Method for the Controlled Synthesis of Magnetite Nanoparticles. <i>Crystal Growth and Design</i> , 2014, 14, 5561-5568.	3.0	61
21	Single-nucleotide polymorphism analysis using fluorescence resonance energy transfer between DNA-labeling fluorophore, fluorescein isothiocyanate, and DNA intercalator, POPO-3, on bacterial magnetic particles. <i>Biotechnology and Bioengineering</i> , 2003, 84, 96-102.	3.3	60
22	Coordinated functions of Mms proteins define the surface structure of cubo-octahedral magnetite crystals in magnetotactic bacteria. <i>Molecular Microbiology</i> , 2014, 93, 554-567.	2.5	58
23	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. <i>Analytical Chemistry</i> , 2008, 80, 5139-5145.	6.5	57
24	Identification and functional characterization of liposome tubulation protein from magnetotactic bacteria. <i>Molecular Microbiology</i> , 2010, 76, 480-488.	2.5	49
25	Detection of biomolecular interaction between biotin and streptavidin on a self-assembled monolayer using magnetic nanoparticles. <i>Biotechnology and Bioengineering</i> , 2004, 88, 543-546.	3.3	47
26	Simultaneously Discrete Biomineralization of Magnetite and Tellurium Nanocrystals in Magnetotactic Bacteria. <i>Applied and Environmental Microbiology</i> , 2010, 76, 5526-5532.	3.1	42
27	Highest levels of Cu, Mn and Co doped into nanomagnetic magnetosomes through optimized biomineralisation. <i>Journal of Materials Chemistry</i> , 2012, 22, 11919.	6.7	40
28	Cadmium Recovery by a Sulfate-Reducing Magnetotactic Bacterium, <i>Desulfovibrio magneticus</i> RS-1, Using Magnetic Separation. <i>Applied Biochemistry and Biotechnology</i> , 2002, 98-100, 833-840.	2.9	36
29	Biomagnetic Recovery and Bioaccumulation of Selenium Granules in Magnetotactic Bacteria. <i>Applied and Environmental Microbiology</i> , 2016, 82, 3886-3891.	3.1	34
30	Detection of <i>Cryptosporidium parvum</i> oocysts using a microfluidic device equipped with the SUS micromesh and FITC-labeled antibody. <i>Biotechnology and Bioengineering</i> , 2007, 96, 272-280.	3.3	33
31	Proteomic analysis of irregular, bullet-shaped magnetosomes in the sulphate-reducing magnetotactic bacterium <i>Desulfovibrio magneticus</i> RS-1. <i>Proteomics</i> , 2009, 9, 3341-3352.	2.2	32
32	Bioinspired Magnetite Crystallization Directed by Random Copolypeptides. <i>Advanced Functional Materials</i> , 2015, 25, 711-719.	14.9	32
33	Preparation of Genomic DNA from a Single Species of Uncultured Magnetotactic Bacterium by Multiple-Displacement Amplification. <i>Applied and Environmental Microbiology</i> , 2010, 76, 1480-1485.	3.1	28
34	Control of magnetite nanocrystal morphology in magnetotactic bacteria by regulation of <i>mms7</i> gene expression. <i>Scientific Reports</i> , 2016, 6, 29785.	3.3	28
35	Characterization of magnetic nanoparticles modified with thiol functionalized PAMAM dendron for DNA recovery. <i>Journal of Colloid and Interface Science</i> , 2012, 377, 469-475.	9.4	27
36	Comparative Subcellular Localization Analysis of Magnetosome Proteins Reveals a Unique Localization Behavior of Mms6 Protein onto Magnetite Crystals. <i>Journal of Bacteriology</i> , 2016, 198, 2794-2802.	2.2	26

#	ARTICLE	IF	CITATIONS
37	Preparation of luciferase-bacterial magnetic particle complex by artificial integration of MagA-luciferase fusion protein into the bacterial magnetic particle membrane. <i>Biotechnology and Bioengineering</i> , 2002, 77, 614-618.	3.3	24
38	Biologically synthesized or bioinspired process-derived iron oxides as catalysts for living cationic polymerization of a vinyl ether. <i>Chemical Communications</i> , 2012, 48, 10904.	4.1	20
39	Core Amino Acid Residues in the Morphology-Regulating Protein, Mms6, for Intracellular Magnetite Biomineralization. <i>Scientific Reports</i> , 2016, 6, 35670.	3.3	20
40	Molecular Bioengineering of Bacterial Magnetic Particles for Biotechnological Applications. , 2006, , 227-254.		19
41	Microbial biodegradation of a novel fluorotelomer alcohol, 1H,1H,2H,2H,8H,8H-perfluorododecanol, yields short fluorinated acids. <i>Applied Microbiology and Biotechnology</i> , 2010, 88, 1193-1203.	3.6	18
42	Efficient DNA release from PAMAM dendrimer-modified superparamagnetic nanoparticles for DNA recovery. <i>Polymer Journal</i> , 2012, 44, 672-677.	2.7	18
43	Cytoplasmic ATPase involved in ferrous ion uptake from magnetotactic bacterium <i>Magnetospirillum magneticum</i> AMB-1. <i>FEBS Letters</i> , 2007, 581, 3443-3448.	2.8	16
44	Glycosylceramides from marine green microalga <i>Tetraselmis</i> sp.. <i>Phytochemistry</i> , 2013, 85, 107-114.	2.9	16
45	Integrated molecular analysis of the inactivation of a non-enveloped virus, feline calicivirus, by UV-C radiation. <i>Journal of Bioscience and Bioengineering</i> , 2018, 126, 63-68.	2.2	15
46	Radular stylus of <i>Cryptochiton stelleri</i> : A multifunctional lightweight and flexible fiber-reinforced composite. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 111, 103991.	3.1	14
47	UV-C irradiation accelerates neutral lipid synthesis in the marine oleaginous diatom <i>Fistulifera solaris</i> . <i>Bioresource Technology</i> , 2017, 245, 1520-1526.	9.6	13
48	Enhanced Tubulation of Liposome Containing Cardiolipin by MamY Protein from Magnetotactic Bacteria. <i>Biotechnology Journal</i> , 2018, 13, 1800087.	3.5	12
49	Structural Design Variations in Beetle Elytra. <i>Advanced Functional Materials</i> , 2021, 31, 2106468.	14.9	12
50	Mesocrystalline Ordering and Phase Transformation of Iron Oxide Biominerals in the Ultrahard Teeth of <i>Cryptochiton stelleri</i> . <i>Small Structures</i> , 2022, 3, .	12.0	11
51	Iron oxide crystal formation on a substrate modified with the Mms6 protein from magnetotactic bacteria. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1187, 46.	0.1	10
52	Nanoarchitected Tough Biological Composites from Assembled Chitinous Scaffolds. <i>Accounts of Chemical Research</i> , 2022, 55, 1360-1371.	15.6	10
53	TCR ϵ repertoire analysis of antigen-specific single T cells using a high-density microcavity array. <i>Biotechnology and Bioengineering</i> , 2010, 106, 311-318.	3.3	9
54	Unveiling characteristic proteins for the structural development of beetle elytra. <i>Acta Biomaterialia</i> , 2022, 140, 467-480.	8.3	6

#	ARTICLE	IF	CITATIONS
55	Crystal Growth of Aspirin Using a Temperature-Controlled Microfluidic Device. <i>Crystal Growth and Design</i> , 2015, 15, 4549-4555.	3.0	5
56	Bacterial Inactivation by Applying an Alternating Electromagnetic Field Using PAMAM Dendron-modified Magnetic Nanoparticles. <i>Electrochemistry</i> , 2016, 84, 324-327.	1.4	5
57	Restoration and Modification of Magnetosome Biosynthesis by Internal Gene Acquisition in a Magnetotactic Bacterium. <i>Biotechnology Journal</i> , 2020, 15, e2000278.	3.5	5
58	Functionalization of Magnetotactic Bacteria for Microrobotic Applications. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	2.1	4
59	Adsorption of Biom mineralization Protein Mms6 on Magnetite (Fe ₃ O ₄) Nanoparticles. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5554.	4.1	4
60	Molecular Mechanism of Magnetic Crystal Formation in Magnetotactic Bacteria. , 2018, , 23-51.		3
61	Controlled radical polymerization of styrene with magnetic iron oxides prepared through hydrothermal, bioinspired, and bacterial processes. <i>RSC Advances</i> , 2015, 5, 51122-51129.	3.6	2
62	Analysis of UV irradiation-induced cell settling of an oleaginous diatom, <i>Fistulifera solaris</i> , for efficient biomass recovery. <i>Algal Research</i> , 2020, 47, 101834.	4.6	2
63	Quantitative and time-course analysis of microbial degradation of 1H,1H,2H,2H,8H,8H-perfluorododecanol in activated sludge. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 8259-8266.	3.6	2
64	Quantitative Detection of Immunoreaction using Magnetite Nanoparticles and Raman Scattering Spectroscopy. <i>E-Journal of Surface Science and Nanotechnology</i> , 2008, 6, 142-146.	0.4	2
65	Single-cell genotyping of phytoplankton from ocean water by gel-based cell manipulation. <i>Biotechnology Journal</i> , 2022, , 2100633.	3.5	0
66	Structural Design Variations in Beetle Elytra (Adv. Funct. Mater. 50/2021). <i>Advanced Functional Materials</i> , 2021, 31, .	14.9	0