Kiyotaka Shiba

List of Publications by Year
in descending order

122	13,337	66234	24179
papers	citations	42 h-index	110 g-index

128	128	128	18445
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pentapartite fractionation of particles in oral fluids by differential centrifugation. Scientific Reports, 2021, 11, 3326.	1.6	12
2	Bioâ€functionalized titanium surfaces with modified silk fibroin carrying titanium binding motif to enhance the ossific differentiation of MC3T3â€E1. Biotechnology and Bioengineering, 2021, 118, 2585-2596.	1.7	3
3	Specimen-specific drift of densities defines distinct subclasses of extracellular vesicles from human whole saliva. PLoS ONE, 2021, 16, e0249526.	1.1	7
4	Raman image-activated cell sorting. Nature Communications, 2020, 11, 3452.	5.8	116
5	A Novel System to Detect Circulating Tumor Cells Using Two Different Size-selective Microfilters. Anticancer Research, 2020, 40, 5577-5582.	0.5	3
6	New Role for Growth/Differentiation Factor 15 in the Survival of Transplanted Brown Adipose Tissues in Cooperation with Interleukin-6. Cells, 2020, 9, 1365.	1.8	9
7	Label-free chemical imaging flow cytometry by high-speed multicolor stimulated Raman scattering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15842-15848.	3.3	130
8	Subtypes of tumour cellâ€derived small extracellular vesicles having differently externalized phosphatidylserine. Journal of Extracellular Vesicles, 2019, 8, 1579541.	5.5	73
9	Preferential capture of EpCAMâ€expressing extracellular vesicles on solid surfaces coated with an aptamerâ€conjugated zwitterionic polymer. Biotechnology and Bioengineering, 2018, 115, 536-544.	1.7	19
10	Minimal information for studies of extracellular vesicles 2018 (MISEV2018): a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines. Journal of Extracellular Vesicles, 2018, 7, 1535750.	5.5	6,961
11	Host Cell Prediction of Exosomes Using Morphological Features on Solid Surfaces Analyzed by Machine Learning. Journal of Physical Chemistry B, 2018, 122, 6224-6235.	1.2	16
12	Wash-free and selective imaging of epithelial cell adhesion molecule (EpCAM) expressing cells with fluorogenic peptide ligands. Biochemical and Biophysical Research Communications, 2018, 500, 283-287.	1.0	4
13	Intelligent Image-Activated Cell Sorting. Cell, 2018, 175, 266-276.e13.	13.5	395
14	Immobilization of a carbon nanomaterial-based localized drug-release system using a bispecific material-binding peptide. International Journal of Nanomedicine, 2018, Volume 13, 1643-1652.	3.3	15
15	Programmable Bio-surfaces for Biomedical Applications. Advances in Experimental Medicine and Biology, 2017, 1030, 1-20.	0.8	2
16	Isolation of Extracellular Vesicles in Saliva Using Density Gradient Ultracentrifugation. Methods in Molecular Biology, 2017, 1660, 343-350.	0.4	19
17	Encryption of agonistic motifs for TLR4 into artificial antigens augmented the maturation of antigen-presenting cells. PLoS ONE, 2017, 12, e0188934.	1.1	8
18	Isolation of human salivary extracellular vesicles by iodixanol density gradient ultracentrifugation and their characterizations. Journal of Extracellular Vesicles, 2016, 5, 30829.	5.5	145

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19	Bridging Adhesion of a Protein onto an Inorganic Surface Using Self-Assembled Dual-Functionalized Spheres. Journal of the American Chemical Society, 2015, 137, 12890-12896.	6.6	20
20	Not nanocarbon but dispersant induced abnormality in lysosome in macrophages in vivo. Nanotechnology, 2015, 26, 195102.	1.3	5
21	Isolation and Quantification of Exosomes. Membrane, 2015, 40, 242-247.	0.0	0
22	Ultrastructural localization of intravenously injected carbon nanohorns in tumor. International Journal of Nanomedicine, 2014, 9, 3499.	3.3	5
23	Combinatorial Contextualization of Peptidic Epitopes for Enhanced Cellular Immunity. PLoS ONE, 2014, 9, e110425.	1.1	5
24	Adhesion of Pancreatic Cancer Cells in a Liver-Microvasculature Mimicking Coculture Correlates with Their Propensity to Form Liver-Specific MetastasisIn Vivo. BioMed Research International, 2014, 2014, 1-13.	0.9	2
25	An artificial fusion protein between bone morphogenetic protein 2 and titaniumâ€binding peptide is functional in vivo. Journal of Biomedical Materials Research - Part A, 2014, 102, 1180-1186.	2.1	14
26	Suppression of Aggrus/podoplaninâ€induced platelet aggregation and pulmonary metastasis by a singleâ€chain antibody variable region fragment. Cancer Medicine, 2014, 3, 1595-1604.	1.3	11
27	Nonvolatile Flash Memory Based on Biologically Integrated Hierarchical Nanostructures. Langmuir, 2013, 29, 12483-12489.	1.6	10
28	Chiral meta-molecules consisting of gold nanoparticles and genetically engineered tobacco mosaic virus. Optics Express, 2012, 20, 24856.	1.7	64
29	Creation of novel signalling modulators from existing cytokine using scanning motif-programming. Chemical Communications, 2011, 47, 9357.	2.2	0
30	Carbon nanohorns accelerate bone regeneration in rat calvarial bone defect. Nanotechnology, 2011, 22, 065102.	1.3	31
31	A Tumor-Environment-Responsive Nanocarrier That Evolves Its Surface Properties upon Sensing Matrix Metalloproteinase-2 and Initiates Agglomeration to Enhance T₂ Relaxivity for Magnetic Resonance Imaging. Molecular Pharmaceutics, 2011, 8, 1970-1974.	2.3	36
32	A novel bifunctional protein supramolecule for construction of carbon nanotubeâ€“titanium hybrid material. Chemical Communications, 2011, 47, 12649.	2.2	20
33	Identification of peptide motif that binds to the surface of zirconia. Dental Materials Journal, 2011, 30, 935-940.	0.8	20
34	Three-Dimensional Nanodot-Type Floating Gate Memory Fabricated by Bio-Layer-by-Layer Method. Applied Physics Express, 2011, 4, 085004.	1.1	8
35	Physicochemical properties of artificial proteins that accelerate nucleation of crystalline calcium phosphate. Journal of Crystal Growth, 2011, 314, 190-195.	0.7	6
36	Gold nanostructures using tobacco mosaic viruses for optical metamaterials. , 2011, , .		0

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37	Exploitation of peptide motif sequences and their use in nanobiotechnology. Current Opinion in Biotechnology, 2010, 21, 412-425.	3.3	73
38	Natural and artificial peptide motifs: their origins and the application of motif-programming. Chemical Society Reviews, 2010, 39, 117-126.	18.7	45
39	Autonomous Silica Encapsulation and Sustained Release of Anticancer Protein. Langmuir, 2010, 26, 2231-2234.	1.6	24
40	Prevention of biofilm formation on titanium surfaces modified with conjugated molecules comprised of antimicrobial and titanium-binding peptides. Biofouling, 2010, 26, 103-110.	0.8	94
41	Peptide-coated, self-assembled M12L24 coordination spheres and their immobilization onto an inorganic surface. Chemical Science, 2010, 1, 68.	3.7	57
42	Motif-programmed artificial proteins mediated nucleation of octacalcium phosphate on titanium substrates. Chemical Communications, 2010, 46, 6675.	2.2	10
43	Morphological Evolution of Calcium Phosphate Crystals with the Assistance of Motif-Programmed Artificial Proteins. Transactions of the Materials Research Society of Japan, 2010, 35, 825-827.	0.2	0
44	Effect of Motifâ€Programmed Artificial Proteins on the Calcium Uptake in a Synthetic Hydrogel. Macromolecular Bioscience, 2009, 9, 959-967.	2.1	9
45	Directional BMP-2 for functionalization of titanium surfaces. Biomaterials, 2009, 30, 1166-1175.	5.7	122
46	Prevention of Carbon Nanohorn Agglomeration Using a Conjugate Composed of Comb-Shaped Polyethylene Glycol and a Peptide Aptamer. Molecular Pharmaceutics, 2009, 6, 441-447.	2.3	40
47	Synthesis of Functional Signaling Domains by Combinatorial Polymerization of Phosphorylation Motifs. ACS Chemical Biology, 2009, 4, 751-758.	1.6	3
48	Biodistribution and Ultrastructural Localization of Single-Walled Carbon Nanohorns Determined In Vivo with Embedded Gd2O3 Labels. ACS Nano, 2009, 3, 1399-1406.	7.3	79
49	Critical Amino Acid Residues for the Specific Binding of the Ti-Recognizing Recombinant Ferritin with Oxide Surfaces of Titanium and Silicon. Langmuir, 2009, 25, 10901-10906.	1.6	48
50	3TA1-02 Direct transformation from amorphous to crystalline calcium phosphate facilitated by motif-programmed artificial proteins(The 47th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2009, 49, S51.	0.0	0
51	Motifâ€programmed artificial protein induces apoptosis in several cancer cells by disrupting mitochondria. Cancer Science, 2008, 99, 398-406.	1.7	9
52	Motif-Programmed Artificial Extracellular Matrix. Biomacromolecules, 2008, 9, 3098-3105.	2.6	30
53	Growth of Giant Two-Dimensional Crystal of Protein Molecules from a Three-Phase Contact Line. Langmuir, 2008, 24, 12836-12841.	1.6	25
54	Direct transformation from amorphous to crystalline calcium phosphate facilitated by motif-programmed artificial proteins. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16866-16870.	3.3	144

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55	Stepwise accumulation of layers of aptamer-ornamented ferritins using biomimetic layer-by-layer. Journal of Materials Research, 2008, 23, 3236-3240.	1.2	5
56	In AquaManufacturing of a Three-Dimensional Nanostructure Using a Peptide Aptamer. MRS Bulletin, 2008, 33, 524-529.	1.7	14
57	Filamentous Phage-Based Extra Cellular Matrix. , 2008, , .		2
58	Conversion of a monodispersed globular protein into an amyloid-like filament by appending an artificial peptide at the N-terminal. Protein Engineering, Design and Selection, 2007, 20, 109-116.	1.0	4
59	Direct Production of a Two-Dimensional Ordered Array of Ferritin-Nanoparticles on a Silicon Substrate. Japanese Journal of Applied Physics, 2007, 46, L713.	0.8	25
60	The role of peptide motifs in the evolution of a protein network. Nucleic Acids Research, 2007, 35, 6357-6366.	6.5	21
61	Dispersion of Cisplatin-Loaded Carbon Nanohorns with a Conjugate Comprised of an Artificial Peptide Aptamer and Polyethylene Glycol. Molecular Pharmaceutics, 2007, 4, 723-729.	2.3	66
62	In Aqua Structuralization of a Three-Dimensional Configuration Using Biomolecules. Nano Letters, 2007, 7, 3200-3202.	4.5	55
63	Structural Properties of an Artificial Protein That Regulates the Nucleation of Inorganic and Organic Crystals. Langmuir, 2007, 23, 3857-3863.	1.6	9
64	Motif programming: a microgene-based method for creating synthetic proteins containing multiple functional motifs. Nucleic Acids Research, 2007, 35, e38-e38.	6.5	23
65	Realizing a Two-Dimensional Ordered Array of Ferritin Molecules Directly on a Solid Surface Utilizing Carbonaceous Material Affinity Peptides. Langmuir, 2007, 23, 1615-1618.	1.6	76
66	A Synthesis Approach to Understanding Repeated Peptides Conserved in Mineralization Proteins. Biomacromolecules, 2007, 8, 2659-2664.	2.6	28
67	The Interaction of 'Silicon' with Proteins: Part 2. The Rold of Bioinspired Peptide and Recombinant Proteins in Silica Polymerization. ACS Symposium Series, 2007, , 328-347.	0.5	6
68	Exploitation of Interface between Peptides and Inorganic Materials in Nano-Biotechnology. Seibutsu Butsuri, 2007, 47, 139-144.	0.0	0
69	Utilization of the Pleiotropy of a Peptidic Aptamer To Fabricate Heterogeneous Nanodot-Containing Multilayer Nanostructures. Journal of the American Chemical Society, 2006, 128, 1717-1722.	6.6	94
70	A synthetic approach for protein evolution and cell engineering. , 2006, , .		0
71	Solubilization of Single-Wall Carbon Nanohorns Using a PEGâ^'Doxorubicin Conjugate. Molecular Pharmaceutics, 2006, 3, 407-414.	2.3	106
72	Mechanism Underlying Specificity of Proteins Targeting Inorganic Materials. Nano Letters, 2006, 6, 515-519.	4.5	118

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73	Selective Nanoscale Positioning of Ferritin and Nanoparticles by Means of Targetâ€Specific Peptides. Small, 2006, 2, 1148-1152.	5.2	76
74	Frame shuffling: a novel method for in vitro protein evolution. Protein Engineering, Design and Selection, 2006, 19, 135-140.	1.0	18
75	Functionalization of carbon nanomaterials by evolutionary molecular engineering: Potential application in drug delivery systems. Journal of Drug Targeting, 2006, 14, 512-518.	2.1	20
76	Liaison between Biology and Material Science. Hyomen Kagaku, 2006, 27, 164-169.	0.0	0
77	Protein-Mediated Bioinspired Mineralization. ACS Symposium Series, 2005, , 150-163.	0.5	4
78	ãƒ¡ã‚¿è¡¨é¢ã«ç‰¹ç•°çš„ã«å¸ç€ã™ã‚‹ãƒšãƒ—ãƒãƒ‰TBP-1ã®å‰µå‡ºã¨å®Ÿç”¨. Materia Japan, 2005, 44, 799-801.	0.3	1
79	Endowing a Ferritin-Like Cage Protein with High Affinity and Selectivity for Certain Inorganic Materials. Small, 2005, 1, 826-832.	5.2	120
80	Specificity and Biomineralization Activities of Ti-Binding Peptide-1 (TBP-1). Langmuir, 2005, 21, 3090-3095.	1.6	217
81	Probing the Conformational Features of a Phage Display Polypeptide Sequence Directed against Single-Walled Carbon Nanohorn Surfaces. Langmuir, 2005, 21, 11907-11914.	1.6	22
82	Carbon Nanohorns as Anticancer Drug Carriers. Molecular Pharmaceutics, 2005, 2, 475-480.	2.3	369
83	AFM and QCM-D Observations of the Binding of TBP-1 on Ti Surfaces. Hyomen Kagaku, 2005, 26, 428-431.	0.0	1
84	Cellular Distribution of Lysyl-tRNA Synthetase and Its Interaction with Gag during Human Immunodeficiency Virus Type 1 Assembly. Journal of Virology, 2004, 78, 7553-7564.	1.5	76
85	Combinatorics of peptide sextets encoded by a single microgene. Journal of Molecular Catalysis B: Enzymatic, 2004, 28, 215-221.	1.8	2
86	MolCraft: a hierarchical approach to the synthesis of artificial proteins. Journal of Molecular Catalysis B: Enzymatic, 2004, 28, 145-153.	1.8	24
87	Synthesis of Functional Proteins by Mixing Peptide Motifs. Chemistry and Biology, 2004, 11, 765-773.	6.2	36
88	Affinity Selection of Peptide Phage Libraries against Single-Wall Carbon Nanohorns Identifies a Peptide Aptamer with Conformational Variability. Langmuir, 2004, 20, 8939-8941.	1.6	120
89	Designer Ribozymes:â€‰ Programming the tRNA Specificity into Flexizyme. Journal of the American Chemical Society, 2004, 126, 11454-11455.	6.6	35
90	Construction and Characterization of Chimeric Proteins Composed of Type-1 and Type-2 Periplasmic Binding Proteins MglB and ArgT. Bioscience, Biotechnology and Biochemistry, 2004, 68, 808-813.	0.6	1

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91	Drug-Loaded Carbon Nanohorns:Â Adsorption and Release of Dexamethasone in Vitro. Molecular Pharmaceutics, 2004, 1, 399-405.	2.3	328
92	Artificial Proteins that Interface between Biological and Inorganic Materials. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2004, 17, 409-410.	0.1	0
93	Distinct macroscopic structures developed from solutions of chemical compounds and periodic proteins. EMBO Reports, 2003, 4, 148-153.	2.0	32
94	Binary Nanomaterials Based on Nanocarbons:â€‰ A Case for Probing Carbon Nanohorns' Biorecognition Properties. Nano Letters, 2003, 3, 1033-1036.	4.5	49
95	A Hexapeptide Motif that Electrostatically Binds to the Surface of Titanium. Journal of the American Chemical Society, 2003, 125, 14234-14235.	6.6	329
96	Translated products of tandem microgene repeats exhibit diverse properties also seen in natural proteins. Protein Engineering, Design and Selection, 2003, 16, 57-63.	1.0	15
97	Characterization of Folding Pathways of the Type-1 and Type-2 Periplasmic Binding Proteins MglB and ArgT. Journal of Biochemistry, 2003, 133, 371-376.	0.9	4
98	Retrovirus-Specific Packaging of Aminoacyl-tRNA Synthetases with Cognate Primer tRNAs. Journal of Virology, 2002, 76, 13111-13115.	1.5	70
99	Guide Oligonucleotide-Dependent DNA Linkage That Facilitates Controllable Polymerization of Microgene Blocks. Journal of Biochemistry, 2002, 132, 689-696.	0.9	7
100	Functional Role of the Prokaryotic Proline-tRNA Synthetase Insertion Domain in Amino Acid Editingâ€. Biochemistry, 2002, 41, 7108-7115.	1.2	71
101	On the Role of Periodism in the Origin of Proteins. Journal of Molecular Biology, 2002, 320, 833-840.	2.0	35
102	Intron Positions Delineate the Evolutionary Path of a Pervasively Appended Peptide in Five Human Aminoacyl-tRNA Synthetases. Journal of Molecular Evolution, 2002, 55, 727-733.	0.8	22
103	Incorporation of Lysyl-tRNA Synthetase into Human Immunodeficiency Virus Type 1. Journal of Virology, 2001, 75, 5043-5048.	1.5	122
104	Divergent Adaptation of tRNA Recognition byMethanococcus jannaschii Prolyl-tRNA Synthetase. Journal of Biological Chemistry, 2001, 276, 20286-20291.	1.6	26
105	Conservation of a tRNA core for aminoacylation. Nucleic Acids Research, 1999, 27, 4743-4750.	6.5	20
106	Precursor of Pro-apoptotic Cytokine Modulates Aminoacylation Activity of tRNA Synthetase. Journal of Biological Chemistry, 1999, 274, 16673-16676.	1.6	89
107	Autonomous folding of a C-terminal inhibitory fragment of Escherichia coli isoleucine-tRNA synthetase. BBA - Proteins and Proteomics, 1999, 1433, 103-109.	2.1	1
108	Species-Specific Differences in the Operational RNA Code for Aminoacylation of tRNAProÂâ€. Biochemistry, 1998, 37, 8605-8613.	1.2	62

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109	Biochemical and phylogenetic analyses of methionyl-tRNA synthetase isolated from a pathogenic microorganism,Mycobacterium tuberculosis. FEBS Letters, 1998, 427, 259-262.	1.3	10
110	Strong Selective Pressure To Use G:U To Mark an RNA Acceptor Stem for Alanineâ€. Biochemistry, 1998, 37, 9193-9202.	1.2	28
111	Human asparaginyl-tRNA synthetase: molecular cloning and the inference of the evolutionary history of Asx-tRNA synthetase family. Nucleic Acids Research, 1998, 26, 5045-5051.	6.5	20
112	Human Lysyl-tRNA Synthetase Accepts Nucleotide 73 Variants and Rescues Escherichia coli Double-defective Mutant. Journal of Biological Chemistry, 1997, 272, 22809-22816.	1.6	69
113	Rapid Colorectal Adenoma Formation Initiated by Conditional Targeting of the Apc Gene. Science, 1997, 278, 120-123.	6.0	561
114	Maintaining genetic code through adaptations of tRNA synthetases to taxonomic domains. Trends in Biochemical Sciences, 1997, 22, 453-457.	3.7	51
115	A EubacterialMycobacterium tuberculosistRNA Synthetase Is Eukaryote-like and Resistant to a Eubacterial-Specific Antisynthetase Drugâ€. Biochemistry, 1996, 35, 9995-10003.	1.2	52
116	Synthesis and Aminoacyl-tRNA Synthetase Inhibitory Activity of Prolyl Adenylate Analogs. Bioorganic Chemistry, 1996, 24, 273-289.	2.0	105
117	Human Alanyl-tRNA Synthetase: Conservation in Evolution of Catalytic Core and Microhelix Recognition. Biochemistry, 1995, 34, 10340-10349.	1.2	40
118	Insertional disruption of the nusB (ssyB) gene leads to cold-sensitive growth of Escherichia coli and suppression of the secY24 mutation. Molecular Genetics and Genomics, 1992, 234, 429-432.	2.4	49
119	A temperature-sensitive mutant of E. coli exhibiting slow processing of exported proteins. Cell, 1983, 32, 789-797.	13.5	253
120	Toward development of nano-materials composed of artificial proteins and nano-carbons. , 0, , .		1
121	Adsorption Properties of a Gold-Binding Peptide Assessed by its Attachment to a Recombinant Apoferritin Molecule. Applied Physics Express, 0, 1, 034006.	1.1	13
122	Intelligent Cell Search Engine. SSRN Electronic Journal, 0, , .	0.4	1