

Kiyotaka Shiba

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120
papers

9,075
citations

41
h-index

95
g-index

128
ext. papers

11,304
ext. citations

7.9
avg, IF

5.37
L-index

#	Paper	IF	Citations
120	Bio-functionalized titanium surfaces with modified silk fibroin carrying titanium binding motif to enhance the ossific differentiation of MC3T3-E1. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 2585-2596	4.9	0
119	Specimen-specific drift of densities defines distinct subclasses of extracellular vesicles from human whole saliva. <i>PLoS ONE</i> , 2021 , 16, e0249526	3.7	0
118	Pentapartite fractionation of particles in oral fluids by differential centrifugation. <i>Scientific Reports</i> , 2021 , 11, 3326	4.9	3
117	New Role for Growth/Differentiation Factor 15 in the Survival of Transplanted Brown Adipose Tissues in Cooperation with Interleukin-6. <i>Cells</i> , 2020 , 9,	7.9	3
116	Raman image-activated cell sorting. <i>Nature Communications</i> , 2020 , 11, 3452	17.4	55
115	A Novel System to Detect Circulating Tumor Cells Using Two Different Size-selective Microfilters. <i>Anticancer Research</i> , 2020 , 40, 5577-5582	2.3	1
114	Subtypes of tumour cell-derived small extracellular vesicles having differently externalized phosphatidylserine. <i>Journal of Extracellular Vesicles</i> , 2019 , 8, 1579541	16.4	44
113	Label-free chemical imaging flow cytometry by high-speed multicolor stimulated Raman scattering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 15842-15848	11.5	78
112	Intelligent Image-Activated Cell Sorting. <i>Cell</i> , 2018 , 175, 266-276.e13	56.2	241
111	Immobilization of a carbon nanomaterial-based localized drug-release system using a bispecific material-binding peptide. <i>International Journal of Nanomedicine</i> , 2018 , 13, 1643-1652	7.3	7
110	Preferential capture of EpCAM-expressing extracellular vesicles on solid surfaces coated with an aptamer-conjugated zwitterionic polymer. <i>Biotechnology and Bioengineering</i> , 2018 , 115, 536-544	4.9	13
109	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. <i>Journal of Extracellular Vesicles</i> , 2018 , 7, 1535750	16.4	3642
108	Host Cell Prediction of Exosomes Using Morphological Features on Solid Surfaces Analyzed by Machine Learning. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 6224-6235	3.4	9
107	Wash-free and selective imaging of epithelial cell adhesion molecule (EpCAM) expressing cells with fluorogenic peptide ligands. <i>Biochemical and Biophysical Research Communications</i> , 2018 , 500, 283-287	3.4	4
106	Programmable Bio-surfaces for Biomedical Applications. <i>Advances in Experimental Medicine and Biology</i> , 2017 , 1030, 1-20	3.6	0
105	Encryption of agonistic motifs for TLR4 into artificial antigens augmented the maturation of antigen-presenting cells. <i>PLoS ONE</i> , 2017 , 12, e0188934	3.7	6
104	Isolation of Extracellular Vesicles in Saliva Using Density Gradient Ultracentrifugation. <i>Methods in Molecular Biology</i> , 2017 , 1660, 343-350	1.4	11

103	Isolation of human salivary extracellular vesicles by iodixanol density gradient ultracentrifugation and their characterizations. <i>Journal of Extracellular Vesicles</i> , 2016 , 5, 30829	16.4	94
102	Bridging Adhesion of a Protein onto an Inorganic Surface Using Self-Assembled Dual-Functionalized Spheres. <i>Journal of the American Chemical Society</i> , 2015 , 137, 12890-6	16.4	17
101	Not nanocarbon but dispersant induced abnormality in lysosome in macrophages in vivo. <i>Nanotechnology</i> , 2015 , 26, 195102	3.4	5
100	Isolation and Quantification of Exosomes. <i>Membrane</i> , 2015 , 40, 242-247	0	
99	Suppression of Aggrus/podoplanin-induced platelet aggregation and pulmonary metastasis by a single-chain antibody variable region fragment. <i>Cancer Medicine</i> , 2014 , 3, 1595-604	4.8	11
98	Ultrastructural localization of intravenously injected carbon nanohorns in tumor. <i>International Journal of Nanomedicine</i> , 2014 , 9, 3499-508	7.3	4
97	Combinatorial contextualization of peptidic epitopes for enhanced cellular immunity. <i>PLoS ONE</i> , 2014 , 9, e110425	3.7	5
96	Adhesion of pancreatic cancer cells in a liver-microvasculature mimicking coculture correlates with their propensity to form liver-specific metastasis in vivo. <i>BioMed Research International</i> , 2014 , 2014, 241371	3.7	1
95	An artificial fusion protein between bone morphogenetic protein 2 and titanium-binding peptide is functional in vivo. <i>Journal of Biomedical Materials Research - Part A</i> , 2014 , 102, 1180-6	5.4	12
94	Nonvolatile flash memory based on biologically integrated hierarchical nanostructures. <i>Langmuir</i> , 2013 , 29, 12483-9	4	9
93	Chiral meta-molecules consisting of gold nanoparticles and genetically engineered tobacco mosaic virus. <i>Optics Express</i> , 2012 , 20, 24856-63	3.3	53
92	Carbon nanohorns accelerate bone regeneration in rat calvarial bone defect. <i>Nanotechnology</i> , 2011 , 22, 065102	3.4	22
91	A tumor-environment-responsive nanocarrier that evolves its surface properties upon sensing matrix metalloproteinase-2 and initiates agglomeration to enhance T1relaxivity for magnetic resonance imaging. <i>Molecular Pharmaceutics</i> , 2011 , 8, 1970-4	5.6	31
90	A novel bifunctional protein supramolecule for construction of carbon nanotube-titanium hybrid material. <i>Chemical Communications</i> , 2011 , 47, 12649-51	5.8	18
89	Identification of peptide motif that binds to the surface of zirconia. <i>Dental Materials Journal</i> , 2011 , 30, 935-40	2.5	15
88	Three-Dimensional Nanodot-Type Floating Gate Memory Fabricated by Bio-Layer-by-Layer Method. <i>Applied Physics Express</i> , 2011 , 4, 085004	2.4	8
87	Physicochemical properties of artificial proteins that accelerate nucleation of crystalline calcium phosphate. <i>Journal of Crystal Growth</i> , 2011 , 314, 190-195	1.6	6
86	Creation of novel signalling modulators from existing cytokine using scanning motif-programming. <i>Chemical Communications</i> , 2011 , 47, 9357-9	5.8	

85	Natural and artificial peptide motifs: their origins and the application of motif-programming. <i>Chemical Society Reviews</i> , 2010 , 39, 117-26	58.5	37
84	Autonomous silica encapsulation and sustained release of anticancer protein. <i>Langmuir</i> , 2010 , 26, 2231-4		24
83	Prevention of biofilm formation on titanium surfaces modified with conjugated molecules comprised of antimicrobial and titanium-binding peptides. <i>Biofouling</i> , 2010 , 26, 103-10	3.3	88
82	Peptide-coated, self-assembled M12L24 coordination spheres and their immobilization onto an inorganic surface. <i>Chemical Science</i> , 2010 , 1, 68	9.4	55
81	Motif-programmed artificial proteins mediated nucleation of octacalcium phosphate on titanium substrates. <i>Chemical Communications</i> , 2010 , 46, 6675-7	5.8	10
80	Exploitation of peptide motif sequences and their use in nanobiotechnology. <i>Current Opinion in Biotechnology</i> , 2010 , 21, 412-25	11.4	68
79	Morphological Evolution of Calcium Phosphate Crystals with the Assistance of Motif-Programmed Artificial Proteins. <i>Transactions of the Materials Research Society of Japan</i> , 2010 , 35, 825-827	0.2	
78	Effect of motif-programmed artificial proteins on the calcium uptake in a synthetic hydrogel. <i>Macromolecular Bioscience</i> , 2009 , 9, 959-67	5.5	8
77	Directional BMP-2 for functionalization of titanium surfaces. <i>Biomaterials</i> , 2009 , 30, 1166-75	15.6	108
76	Prevention of carbon nanohorn agglomeration using a conjugate composed of comb-shaped polyethylene glycol and a peptide aptamer. <i>Molecular Pharmaceutics</i> , 2009 , 6, 441-7	5.6	36
75	Synthesis of functional signaling domains by combinatorial polymerization of phosphorylation motifs. <i>ACS Chemical Biology</i> , 2009 , 4, 751-8	4.9	3
74	Biodistribution and ultrastructural localization of single-walled carbon nanohorns determined in vivo with embedded Gd ₂ O ₃ labels. <i>ACS Nano</i> , 2009 , 3, 1399-406	16.7	74
73	Critical amino acid residues for the specific binding of the Ti-recognizing recombinant ferritin with oxide surfaces of titanium and silicon. <i>Langmuir</i> , 2009 , 25, 10901-6	4	42
72	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). <i>Seibutsu Butsuri</i> , 2009 , 49, S51	0	
71	Motif-programmed artificial protein induces apoptosis in several cancer cells by disrupting mitochondria. <i>Cancer Science</i> , 2008 , 99, 398-406	6.9	8
70	Motif-programmed artificial extracellular matrix. <i>Biomacromolecules</i> , 2008 , 9, 3098-105	6.9	29
69	Growth of giant two-dimensional crystal of protein molecules from a three-phase contact line. <i>Langmuir</i> , 2008 , 24, 12836-41	4	23
68	Direct transformation from amorphous to crystalline calcium phosphate facilitated by motif-programmed artificial proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 16866-70	11.5	128

67	Stepwise accumulation of layers of aptamer-ornamented ferritins using biomimetic layer-by-layer. <i>Journal of Materials Research</i> , 2008 , 23, 3236-3240	2.5	5
66	In Aqua Manufacturing of a Three-Dimensional Nanostructure Using a Peptide Aptamer. <i>MRS Bulletin</i> , 2008 , 33, 524-529	3.2	12
65	Filamentous Phage-Based Extra Cellular Matrix 2008 ,		1
64	Adsorption Properties of a Gold-Binding Peptide Assessed by its Attachment to a Recombinant Apoferritin Molecule. <i>Applied Physics Express</i> , 2008 , 1, 034006	2.4	11
63	In aqua structuralization of a three-dimensional configuration using biomolecules. <i>Nano Letters</i> , 2007 , 7, 3200-2	11.5	55
62	Structural properties of an artificial protein that regulates the nucleation of inorganic and organic crystals. <i>Langmuir</i> , 2007 , 23, 3857-63	4	9
61	Motif programming: a microgene-based method for creating synthetic proteins containing multiple functional motifs. <i>Nucleic Acids Research</i> , 2007 , 35, e38	20.1	20
60	Realizing a two-dimensional ordered array of ferritin molecules directly on a solid surface utilizing carbonaceous material affinity peptides. <i>Langmuir</i> , 2007 , 23, 1615-8	4	71
59	A synthesis approach to understanding repeated peptides conserved in mineralization proteins. <i>Biomacromolecules</i> , 2007 , 8, 2659-64	6.9	27
58	The Interaction of Silicon With Proteins: Part 2. The Role of Bioinspired Peptide and Recombinant Proteins in Silica Polymerization. <i>ACS Symposium Series</i> , 2007 , 328-347	0.4	6
57	Conversion of a monodispersed globular protein into an amyloid-like filament by appending an artificial peptide at the N-terminal. <i>Protein Engineering, Design and Selection</i> , 2007 , 20, 109-16	1.9	4
56	Direct Production of a Two-Dimensional Ordered Array of Ferritin-Nanoparticles on a Silicon Substrate. <i>Japanese Journal of Applied Physics</i> , 2007 , 46, L713-L715	1.4	24
55	The role of peptide motifs in the evolution of a protein network. <i>Nucleic Acids Research</i> , 2007 , 35, 6357-66	20.1	18
54	Dispersion of cisplatin-loaded carbon nanohorns with a conjugate comprised of an artificial peptide aptamer and polyethylene glycol. <i>Molecular Pharmaceutics</i> , 2007 , 4, 723-9	5.6	58
53	Exploitation of Interface between Peptides and Inorganic Materials in Nano-Biotechnology. <i>Seibutsu Butsuri</i> , 2007 , 47, 139-144	0	
52	Frame shuffling: a novel method for in vitro protein evolution. <i>Protein Engineering, Design and Selection</i> , 2006 , 19, 135-40	1.9	13
51	Functionalization of carbon nanomaterials by evolutionary molecular engineering: potential application in drug delivery systems. <i>Journal of Drug Targeting</i> , 2006 , 14, 512-8	5.4	17
50	Utilization of the pleiotropy of a peptidic aptamer to fabricate heterogeneous nanodot-containing multilayer nanostructures. <i>Journal of the American Chemical Society</i> , 2006 , 128, 1717-22	16.4	88

49	Solubilization of single-wall carbon nanohorns using a PEG-doxorubicin conjugate. <i>Molecular Pharmaceutics</i> , 2006 , 3, 407-14	5.6	95
48	Mechanism underlying specificity of proteins targeting inorganic materials. <i>Nano Letters</i> , 2006 , 6, 515-9	11.5	110
47	Selective nanoscale positioning of ferritin and nanoparticles by means of target-specific peptides. <i>Small</i> , 2006 , 2, 1148-52	11	70
46	Liaison between Biology and Material Science. <i>Hyomen Kagaku</i> , 2006 , 27, 164-169		
45	Specificity and biomineralization activities of Ti-binding peptide-1 (TBP-1). <i>Langmuir</i> , 2005 , 21, 3090-5	4	194
44	Probing the conformational features of a phage display polypeptide sequence directed against single-walled carbon nanohorn surfaces. <i>Langmuir</i> , 2005 , 21, 11907-14	4	22
43	Carbon nanohorns as anticancer drug carriers. <i>Molecular Pharmaceutics</i> , 2005 , 2, 475-80	5.6	326
42	Protein-Mediated Bioinspired Mineralization. <i>ACS Symposium Series</i> , 2005 , 150-163	0.4	3
41	????????????????TBP-1?????????. <i>Materia Japan</i> , 2005 , 44, 799-803	0.1	1
40	Endowing a ferritin-like cage protein with high affinity and selectivity for certain inorganic materials. <i>Small</i> , 2005 , 1, 826-32	11	111
39	AFM and QCM-D Observations of the Binding of TBP-1 on Ti Surfaces. <i>Hyomen Kagaku</i> , 2005 , 26, 428-431		1
38	Cellular distribution of Lysyl-tRNA synthetase and its interaction with Gag during human immunodeficiency virus type 1 assembly. <i>Journal of Virology</i> , 2004 , 78, 7553-64	6.6	67
37	Combinatorics of peptide sextets encoded by a single microgene. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2004 , 28, 215-221		2
36	MolCraft: a hierarchical approach to the synthesis of artificial proteins. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2004 , 28, 145-153		23
35	Synthesis of functional proteins by mixing peptide motifs. <i>Chemistry and Biology</i> , 2004 , 11, 765-73		31
34	Affinity selection of peptide phage libraries against single-wall carbon nanohorns identifies a peptide aptamer with conformational variability. <i>Langmuir</i> , 2004 , 20, 8939-41	4	110
33	Designer ribozymes: programming the tRNA specificity into flexizyme. <i>Journal of the American Chemical Society</i> , 2004 , 126, 11454-5	16.4	26
32	Construction and characterization of chimeric proteins composed of type-1 and type-2 periplasmic binding proteins MglB and ArgT. <i>Bioscience, Biotechnology and Biochemistry</i> , 2004 , 68, 808-13	2.1	1

31	Drug-loaded carbon nanohorns: adsorption and release of dexamethasone in vitro. <i>Molecular Pharmaceutics</i> , 2004 , 1, 399-405	5.6	303
30	Artificial Proteins that Interface between Biological and Inorganic Materials. <i>Journal of Photopolymer Science and Technology = [Fotopolyma Konwakai Shi]</i> , 2004 , 17, 409-410	0.7	
29	Distinct macroscopic structures developed from solutions of chemical compounds and periodic proteins. <i>EMBO Reports</i> , 2003 , 4, 148-53	6.5	30
28	Binary Nanomaterials Based on Nanocarbons: A Case for Probing Carbon Nanohorns' Biorecognition Properties. <i>Nano Letters</i> , 2003 , 3, 1033-1036	11.5	45
27	A hexapeptide motif that electrostatically binds to the surface of titanium. <i>Journal of the American Chemical Society</i> , 2003 , 125, 14234-5	16.4	300
26	Translated products of tandem microgene repeats exhibit diverse properties also seen in natural proteins. <i>Protein Engineering, Design and Selection</i> , 2003 , 16, 57-63	1.9	14
25	Characterization of folding pathways of the type-1 and type-2 periplasmic binding proteins MglB and ArgT. <i>Journal of Biochemistry</i> , 2003 , 133, 371-6	3.1	2
24	Intron positions delineate the evolutionary path of a pervasively appended peptide in five human aminoacyl-tRNA synthetases. <i>Journal of Molecular Evolution</i> , 2002 , 55, 727-33	3.1	20
23	Retrovirus-specific packaging of aminoacyl-tRNA synthetases with cognate primer tRNAs. <i>Journal of Virology</i> , 2002 , 76, 13111-5	6.6	67
22	Guide oligonucleotide-dependent DNA linkage that facilitates controllable polymerization of microgene blocks. <i>Journal of Biochemistry</i> , 2002 , 132, 689-96	3.1	6
21	Functional role of the prokaryotic proline-tRNA synthetase insertion domain in amino acid editing. <i>Biochemistry</i> , 2002 , 41, 7108-15	3.2	68
20	On the role of periodism in the origin of proteins. <i>Journal of Molecular Biology</i> , 2002 , 320, 833-40	6.5	29
19	Divergent adaptation of tRNA recognition by <i>Methanococcus jannaschii</i> prolyl-tRNA synthetase. <i>Journal of Biological Chemistry</i> , 2001 , 276, 20286-91	5.4	22
18	Incorporation of lysyl-tRNA synthetase into human immunodeficiency virus type 1. <i>Journal of Virology</i> , 2001 , 75, 5043-8	6.6	115
17	Conservation of a tRNA core for aminoacylation. <i>Nucleic Acids Research</i> , 1999 , 27, 4743-50	20.1	19
16	Precursor of pro-apoptotic cytokine modulates aminoacylation activity of tRNA synthetase. <i>Journal of Biological Chemistry</i> , 1999 , 274, 16673-6	5.4	74
15	Autonomous folding of a C-terminal inhibitory fragment of <i>Escherichia coli</i> isoleucine-tRNA synthetase. <i>BBA - Proteins and Proteomics</i> , 1999 , 1433, 103-9		1
14	Species-specific differences in the operational RNA code for aminoacylation of tRNA ^{Pro} . <i>Biochemistry</i> , 1998 , 37, 8605-13	3.2	56

13	Biochemical and phylogenetic analyses of methionyl-tRNA synthetase isolated from a pathogenic microorganism, <i>Mycobacterium tuberculosis</i> . <i>FEBS Letters</i> , 1998 , 427, 259-62	3.8	8
12	Strong selective pressure to use G:U to mark an RNA acceptor stem for alanine. <i>Biochemistry</i> , 1998 , 37, 9193-202	3.2	24
11	Human asparaginyl-tRNA synthetase: molecular cloning and the inference of the evolutionary history of Asx-tRNA synthetase family. <i>Nucleic Acids Research</i> , 1998 , 26, 5045-51	20.1	17
10	Human lysyl-tRNA synthetase accepts nucleotide 73 variants and rescues <i>Escherichia coli</i> double-defective mutant. <i>Journal of Biological Chemistry</i> , 1997 , 272, 22809-16	5.4	65
9	Rapid colorectal adenoma formation initiated by conditional targeting of the Apc gene. <i>Science</i> , 1997 , 278, 120-3	33.3	490
8	Maintaining genetic code through adaptations of tRNA synthetases to taxonomic domains. <i>Trends in Biochemical Sciences</i> , 1997 , 22, 453-7	10.3	48
7	A eubacterial <i>Mycobacterium tuberculosis</i> tRNA synthetase is eukaryote-like and resistant to a eubacterial-specific antisynthetase drug. <i>Biochemistry</i> , 1996 , 35, 9995-10003	3.2	44
6	Synthesis and Aminoacyl-tRNA Synthetase Inhibitory Activity of Prolyl Adenylate Analogs. <i>Bioorganic Chemistry</i> , 1996 , 24, 273-289	5.1	97
5	Human alanyl-tRNA synthetase: conservation in evolution of catalytic core and microhelix recognition. <i>Biochemistry</i> , 1995 , 34, 10340-9	3.2	33
4	Insertional disruption of the nusB (<i>ssyB</i>) gene leads to cold-sensitive growth of <i>Escherichia coli</i> and suppression of the <i>secY24</i> mutation. <i>Molecular Genetics and Genomics</i> , 1992 , 234, 429-32		44
3	A temperature-sensitive mutant of <i>E. coli</i> exhibiting slow processing of exported proteins. <i>Cell</i> , 1983 , 32, 789-97	56.2	231
2	Toward development of nano-materials composed of artificial proteins and nano-carbons		1
1	Intelligent Cell Search Engine. <i>SSRN Electronic Journal</i> ,	1	1