Toshiki Sawada

List of Publications by Year
in descending order

85 papers	1,572 citations	279487 23 h-index	360668 35 g-index
88 all docs	88 docs citations	88 times ranked	1396 citing authors

#	Article	IF	Citations
1	A Peptide Motif Recognizing a Polymer Stereoregularity. Journal of the American Chemical Society, 2005, 127, 13780-13781.	6.6	86
2	Peptide Motifs That Recognize Differences in Polymer-Film Surfaces. Angewandte Chemie - International Edition, 2007, 46, 723-726.	7.2	63
3	Enzymatic synthesis and post-functionalization of two-dimensional crystalline cellulose oligomers with surface-reactive groups. Chemical Communications, 2015, 51, 12525-12528.	2.2	58
4	Sonication-assisted alcoholysis of boron nitride nanotubes for their sidewalls chemical peeling. Chemical Communications, 2015, 51, 7104-7107.	2.2	55
5	Synthetic Multifunctional Graphene Composites with Reshaping and Selfâ€Healing Features via a Facile Biomineralizationâ€Inspired Process. Advanced Materials, 2018, 30, e1803004.	11.1	55
6	Highly Specific Affinities of Short Peptides against Synthetic Polymers. Langmuir, 2007, 23, 11127-11133.	1.6	52
7	Hydrolytic activities of artificial nanocellulose synthesized via phosphorylase-catalyzed enzymatic reactions. Polymer Journal, 2016, 48, 539-544.	1.3	52
8	Filamentous Viruses as Building Blocks for Hierarchical Self-Assembly toward Functional Soft Materials. Bulletin of the Chemical Society of Japan, 2018, 91, 455-466.	2.0	50
9	Enzymatic Synthesis of Cellulose Oligomer Hydrogels Composed of Crystalline Nanoribbon Networks under Macromolecular Crowding Conditions. ACS Macro Letters, 2017, 6, 165-170.	2.3	45
10	Specific interfaces between synthetic polymers and biologically identified peptides. Journal of Materials Chemistry, 2011, 21, 10252.	6.7	41
11	Cell-adhesive hydrogels composed of peptide nanofibers responsive to biological ions. Polymer Journal, 2012, 44, 651-657.	1.3	40
12	Peptides as New Smart Bionanomaterials: Molecularâ€Recognition and Selfâ€Assembly Capabilities. Chemical Record, 2013, 13, 172-186.	2.9	40
13	Enzymatic Synthesis of Oligo(ethylene glycol)-Bearing Cellulose Oligomers for in Situ Formation of Hydrogels with Crystalline Nanoribbon Network Structures. Langmuir, 2016, 32, 12520-12526.	1.6	40
14	Affinity-Based Screening of Peptides Recognizing Assembly States of Self-Assembling Peptide Nanomaterials. Journal of the American Chemical Society, 2009, 131, 14434-14441.	6.6	38
15	Hydrolytic Activities of Crystalline Cellulose Nanofibers. Biomacromolecules, 2013, 14, 613-617.	2.6	37
16	A Bottom-Up Synthesis of Vinyl-Cellulose Nanosheets and Their Nanocomposite Hydrogels with Enhanced Strength. Biomacromolecules, 2017, 18, 4196-4205.	2.6	37
17	Multidimensional Self-Assembled Structures of Alkylated Cellulose Oligomers Synthesized via in Vitro Enzymatic Reactions. Langmuir, 2016, 32, 10120-10125.	1.6	36
18	Self-Assembly of Cellulose Oligomers into Nanoribbon Network Structures Based on Kinetic Control of Enzymatic Oligomerization. Langmuir, 2017, 33, 13415-13422.	1.6	35

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19	Macromolecular crowding for materials-directed controlled self-assembly. Journal of Materials Chemistry B, 2018, 6, 6344-6359.	2.9	34
20	Enzyme-Catalyzed Bottom-Up Synthesis of Mechanically and Physicochemically Stable Cellulose Hydrogels for Spatial Immobilization of Functional Colloidal Particles. Biomacromolecules, 2018, 19, 1269-1275.	2.6	32
21	Enzymatic synthesis and protein adsorption properties of crystalline nanoribbons composed of cellulose oligomer derivatives with primary amino groups. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 925-938.	1.9	28
22	Hybrid Hydrogels Composed of Regularly Assembled Filamentous Viruses and Gold Nanoparticles. ACS Macro Letters, 2014, 3, 341-345.	2.3	27
23	Templated Synthesis of Gold Nanoparticles on Surface-Aminated 2D Cellulose Assemblies. Bulletin of the Chemical Society of Japan, 2019, 92, 982-988.	2.0	25
24	Effect of solution viscosity on the production of nanoribbon network hydrogels composed of enzymatically synthesized cellulose oligomers under macromolecular crowding conditions. Polymer Journal, 2017, 49, 575-581.	1.3	24
25	Dense surface functionalization using peptides that recognize differences in organized structures of self-assembling nanomaterials. Molecular BioSystems, 2012, 8, 1264.	2.9	22
26	Filamentous virus-based soft materials based on controlled assembly through liquid crystalline formation. Polymer Journal, 2017, 49, 639-647.	1.3	22
27	Screening of peptides recognizing simple polycyclic aromatic hydrocarbons. Chemical Communications, 2013, 49, 5088.	2.2	21
28	Chirality-specific hydrolysis of amino acid substrates by cellulose nanofibers. Chemical Communications, 2013, 49, 8827.	2.2	21
29	Affinity-based release of polymer-binding peptides from hydrogels with the target segments of peptides. Chemical Communications, 2016, 52, 2241-2244.	2.2	19
30	Temperature-Directed Assembly of Crystalline Cellulose Oligomers into Kinetically Trapped Structures during Biocatalytic Synthesis. Langmuir, 2019, 35, 7026-7034.	1.6	19
31	Affinity-based thermoresponsive precipitation of proteins modified with polymer-binding peptides. Chemical Communications, 2016, 52, 5670-5673.	2.2	18
32	Noncovalent functionalization of boron nitride nanotubes using water-soluble synthetic polymers and the subsequent preparation of superhydrophobic surfaces. Polymer Journal, 2013, 45, 567-570.	1.3	17
33	Neutralization-Induced Self-Assembly of Cellulose Oligomers into Antibiofouling Crystalline Nanoribbon Networks in Complex Mixtures. ACS Macro Letters, 2020, 9, 301-305.	2.3	17
34	Immobilization of highly oriented filamentous viruses onto polymer substrates. Journal of Materials Chemistry B, 2013, 1, 149-152.	2.9	16
35	Controlled release of antibody proteins from liquid crystalline hydrogels composed of genetically engineered filamentous viruses. Materials Chemistry Frontiers, 2017, 1, 146-151.	3.2	16
36	Dispersion of Boron Nitride Nanotubes in Aqueous Solution by Simple Aromatic Molecules. Journal of Nanoscience and Nanotechnology, 2014, 14, 3028-3033.	0.9	15

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37	Surface functionalization of polymer substrates with hydroxyapatite using polymer-binding peptides. Journal of Materials Chemistry B, 2016, 4, 3651-3659.	2.9	15
38	pHâ€Triggered Selfâ€Assembly of Cellulose Oligomers with Gelatin into a Doubleâ€Network Hydrogel. Macromolecular Bioscience, 2020, 20, e2000187.	2.1	15
39	In-Paper Self-Assembly of Cellulose Oligomers for the Preparation of All-Cellulose Functional Paper. ACS Sustainable Chemistry and Engineering, 2021, 9, 5684-5692.	3.2	15
40	Nucleotide-assisted decoration of boron nitride nanotubes with semiconductor quantum dots endows valuable visible-light emission in aqueous solution. Soft Matter, 2011, 7, 8753.	1.2	14
41	Regular assembly of filamentous viruses and gold nanoparticles by specific interactions and subsequent chemical crosslinking. Polymer Journal, 2014, 46, 511-515.	1.3	14
42	Selective Rare Earth Recovery Employing Filamentous Viruses with Chemically Conjugated Peptides. ChemistrySelect, 2016, 1, 2712-2716.	0.7	14
43	Nanoribbon network formation of enzymatically synthesized cellulose oligomers through dispersion stabilization of precursor particles. Polymer Journal, 2018, 50, 799-804.	1.3	14
44	Biocatalytic oligomerization-induced self-assembly of crystalline cellulose oligomers into nanoribbon networks assisted by organic solvents. Beilstein Journal of Nanotechnology, 2019, 10, 1778-1788.	1.5	14
45	Self-assembled peptides on polymer surfaces: towards morphology-dependent surface functionalization. Soft Matter, 2013, 9, 3469.	1.2	13
46	Structured liquids with interfacial robust assemblies of a nonionic crystalline surfactant. Journal of Colloid and Interface Science, 2021, 590, 487-494.	5.0	13
47	Preparation and characterization of hybrid hydrogels composed of physically cross-linked gelatin and liquid-crystalline filamentous viruses. Polymer Bulletin, 2015, 72, 1487-1496.	1.7	12
48	Conjugated polymer nanoparticles hybridized with the peptide aptamer. Chemical Communications, 2011, 47, 7707.	2.2	10
49	Filamentous Virus-based Assembly: Their Oriented Structures and Thermal Diffusivity. Scientific Reports, 2018, 8, 5412.	1.6	10
50	Aqueous Suspensions of Cellulose Oligomer Nanoribbons for Growth and Natural Filtration-Based Separation of Cancer Spheroids. Langmuir, 2020, 36, 13890-13898.	1.6	9
51	Enzyme-catalyzed propagation of cello-oligosaccharide chains from bifunctional oligomeric primers for the preparation of block co-oligomers and their crystalline assemblies. Polymer Journal, 2021, 53, 1133-1143.	1.3	9
52	A novel Î²-loop scaffold of phage-displayed peptides for highly specific affinities. Molecular BioSystems, 2011, 7, 2558.	2.9	8
53	Bioinspired structural transition of synthetic polymers through biomolecular ligand binding. Chemical Communications, 2018, 54, 12006-12009.	2.2	8
54	Confined Reduced Graphene Oxides as a Platform for DNA Sensing in Solutions Crowded with Biomolecules. ACS Applied Bio Materials, 2020, 3, 3210-3216.	2.3	8

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55	Mechanically robust crystalline monolayer assemblies of oligosaccharide-based amphiphiles on water surfaces. Chemical Communications, 2019, 55, 11346-11349.	2.2	7
56	Assembly of reduced graphene oxides into a three-dimensional porous structure <i>via</i> confinement within robust cellulose oligomer networks. RSC Advances, 2019, 9, 38848-38854.	1.7	7
57	Design of peptides with strong binding affinity to poly(methyl methacrylate) resin by use of molecular simulation-based materials informatics. Polymer Journal, 2021, 53, 1439-1449.	1.3	7
58	Identification of Water-Soluble Polymers through Discrimination of Multiple Optical Signals from a Single Peptide Sensor. ACS Applied Materials & Interfaces, 2021, 13, 55978-55987.	4.0	7
59	A Novel Peptide Array Using a Phage Display System for Protein Detection. Chemistry Letters, 2011, 40, 508-509.	0.7	6
60	Preparation and Dynamic Behavior of Protein-Polymer Complexes Formed with Polymer-Binding Peptides. Bulletin of the Chemical Society of Japan, 2020, 93, 790-793.	2.0	6
61	Discovery of Surfactant-Like Peptides from a Phage-Displayed Peptide Library. Viruses, 2020, 12, 1442.	1.5	5
62	Control of parallel versus antiparallel molecular arrangements in crystalline assemblies of alkyl Î²-cellulosides. Journal of Colloid and Interface Science, 2021, 601, 505-516.	5.0	5
63	Difference in Protein Adsorption Onto Polymer Films With or Without Thermal Annealing. Journal of Nanoscience and Nanotechnology, 2014, 14, 3106-3111.	0.9	4
64	High Thermal Diffusivity in Thermally Treated Filamentous Virus-Based Assemblies with a Smectic Liquid Crystalline Orientation. Viruses, 2018, 10, 608.	1.5	4
65	Affinity-Based Functionalization of Biomedically Utilized Micelles Composed of Triblock Copolymers through Polymer-Binding Peptides. ACS Biomaterials Science and Engineering, 2019, 5, 5714-5720.	2.6	4
66	Thermally conductive molecular assembly composed of an oligo(ethylene glycol)-modified filamentous virus with improved solubility and resistance to organic solvents. Polymer Journal, 2020, 52, 803-811.	1.3	4
67	Detection of Kinase Activity Using a Synthetic System of Gold Nanoparticles in HEPES Buffer. Chemistry Letters, 2011, 40, 142-143.	0.7	3
68	Antigen-Antibody Interaction-Based Self-Healing Capability of Hybrid Hydrogels Composed of Genetically Engineered Filamentous Viruses and Gold Nanoparticles. Protein and Peptide Letters, 2018, 25, 64-67.	0.4	3
69	Controlled assembly of filamentous viruses into hierarchical nano- to microstructures at liquid/liquid interfaces. RSC Advances, 2020, 10, 26313-26318.	1.7	3
70	Phosphorylase-catalyzed synthesis and self-assembled structures of cellulose oligomers in the presence of protein denaturants. Polymer Journal, 2022, 54, 561-569.	1.3	3
71	Polymer-binding Peptides as Dispersants for the Preparation of Polymer Nanoparticles: Application of Peptides to Structurally Similar Non-target Polymers. Chemistry Letters, 2015, 44, 831-833.	0.7	2
72	Peptides as Smart Biomolecular Tools: Utilization of Their Molecular Recognition for Materials Engineering. ACS Symposium Series, 2017, , 31-48.	0.5	2

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73	Alcoholysis-Assisted Exfoliation of Boron Nitride Nanosheets from Hexagonal Boron Nitride. Transactions of the Materials Research Society of Japan, 2017, 42, 135-138.	0.2	2
74	Development of Nano- and Bio-Materials Using Nanofibers Fabricated from Self-Assembling Peptides. Kobunshi Ronbunshu, 2017, 74, 162-171.	0.2	2
75	Affinity Control of Monosaccharide Conjugated Peptides against Lectins with a Set of Amino Acid Substitutions on Î±-Helical Structures. Bioconjugate Chemistry, 2020, 31, 2533-2540.	1.8	2
76	Affinity-based thermoresponsive fluorescence switching of proteins conjugated with a polymer-binding peptide. Soft Matter, 2020, 16, 10096-10100.	1.2	2
77	Aqueous Dispersion of Carbon Nanotubes Using Self-aggregating Peptides. Chemistry Letters, 2014, 43, 102-104.	0.7	1
78	Graphene: Synthetic Multifunctional Graphene Composites with Reshaping and Self-Healing Features via a Facile Biomineralization-Inspired Process (Adv. Mater. 34/2018). Advanced Materials, 2018, 30, 1870253.	11.1	1
79	Filamentous virus-based membrane prepared by chemical cross-linking at liquid/liquid interface for a tailored molecular separation system. Journal of Membrane Science, 2020, 595, 117595.	4.1	1
80	Preparation of Biocomposite Soft Nanoparticles Composed of Poly(Propylene Oxide) and the Polymer-Binding Peptides. Processes, 2020, 8, 859.	1.3	1
81	Dispersion and Functionalization of Boron Nitride Nanotubes in Aqueous Solution. Nippon Gomu Kyokaishi, 2015, 88, 447-453.	0.0	0
82	Characterization of Liquid Crystalline Properties of Filamentous Viruses Conjugated with Photo-Responsive Molecules. Kobunshi Ronbunshu, 2017, 74, 203-207.	0.2	0
83	Bioinspired Functional Polymers. Journal of Fiber Science and Technology, 2016, 72, P-335-P-336.	0.0	0
84	Construction of Soft Materials Composed of Filamentous Virus. Journal of Fiber Science and Technology, 2017, 73, P-308-P-311.	0.0	0
85	Development of Surface Modification Methods Based on Specific Affinities of Polymerâ€"binding Peptides. Membrane, 2020, 45, 100-107.	0.0	0