Yoshihito Osada

List of Publications by Year
in descending order

79 papers	5,409 citations	136950 32 h-index	79698 73 g-index
80 all docs	80 docs citations	80 times ranked	3984 citing authors

#	Article	IF	Citations
1	A polymer gel with electrically driven motility. Nature, 1992, 355, 242-244.	27.8	1,259
2	Soft and Wet Materials: Polymer Gels. Advanced Materials, 1998, 10, 827-837.	21.0	519
3	Shape memory in hydrogels. Nature, 1995, 376, 219-219.	27.8	430
4	Intelligent Gels. Scientific American, 1993, 268, 82-87.	1.0	354
5	Synthesis of Hydrogels with Extremely Low Surface Friction. Journal of the American Chemical Society, 2001, 123, 5582-5583.	13.7	229
6	Formation of interpolymer complexes. Journal of Macromolecular Science - Physics, 1980, 17, 683-714.	1.0	193
7	Gel friction: A model based on surface repulsion and adsorption. Journal of Chemical Physics, 1998, 109, 8062-8068.	3.0	157
8	Equilibrium study of polymerâ€“polymer complexation of poly(methacrylic acid) and poly(acrylic acid) with complementary polymers through cooperative hydrogen bonding. Journal of Polymer Science: Polymer Chemistry Edition, 1979, 17, 3485-3498.	0.8	152
9	Friction of Gels. 3. Friction on Solid Surfaces. Journal of Physical Chemistry B, 1999, 103, 6001-6006.	2.6	140
10	Friction of Gels. 4. Friction on Charged Gels. Journal of Physical Chemistry B, 1999, 103, 6007-6014.	2.6	134
11	Friction of Gels. Journal of Physical Chemistry B, 1997, 101, 5487-5489.	2.6	132
12	Thermal equilibrium of the intermacromolecular complexes of polycarboxylic acids realized by cooperative hydrogen bonding. Journal of Polymer Science, Polymer Letters Edition, 1976, 14, 129-134.	0.4	109
13	Surface Friction of Hydrogels with Well-Defined Polyelectrolyte Brushes. Langmuir, 2004, 20, 6549-6555.	3.5	75
14	Ring-Shaped Assembly of Microtubules Shows Preferential Counterclockwise Motion. Biomacromolecules, 2008, 9, 2277-2282.	5.4	68
15	Water and protein permeation through polymeric membrane having mechanochemically expanding and contracting pores. Function of chemical valve. I. Journal of Polymer Science, Polymer Letters Edition, 1981, 19, 303-308.	0.4	63
16	Preparation and electrical properties of polymeric copper phthalocyanine thin films by plasma polymerization. Journal of Applied Physics, 1986, 59, 1776-1779.	2.5	61
17	Effect of Charge on Protein Diffusion in Hydrogels. Journal of Physical Chemistry B, 2000, 104, 9898-9903.	2.6	59
18	Solvent-driven chemical motor. Applied Physics Letters, 1998, 73, 2366-2368.	3.3	55

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19	Heterogeneous Polymerization of Hydrogels on Hydrophobic Substrate. Journal of Physical Chemistry B, 2001, 105, 4565-4571.	2.6	54
20	Controlled Motion of Solvent-Driven Gel Motor and Its Application as a Generator. Langmuir, 2000, 16, 307-312.	3.5	53
21	Soft and wet touch-sensing system made of hydrogel. Macromolecular Rapid Communications, 1995, 16, 713-716.	3.9	49
22	Title is missing!. Die Makromolekulare Chemie, 1975, 176, 2761-2764.	1.1	47
23	Chemical valves and gel actuators. Advanced Materials, 1991, 3, 107-108.	21.0	46
24	Mechanically tough double-network hydrogels with high electronic conductivity. Journal of Materials Chemistry C, 2014, 2, 736-743.	5.5	41
25	Effects and Role of the Solvents on the Plasma-Initiated Solution Polymerization of Vinyl Monomers. Polymer Journal, 1983, 15, 81-86.	2.7	39
26	Investigation of Molecular Diffusion in Hydrogel by Electronic Speckle Pattern Interferometry. Journal of Physical Chemistry B, 1999, 103, 6069-6074.	2.6	37
27	Hydrothermal contractionâ€"dilation of polymer networks by reversible complexation with a complementary macromolecule. Journal of Polymer Science: Polymer Chemistry Edition, 1977, 15, 255-267.	0.8	35
28	Selective Formation of a Linear-Shaped Bundle of Microtubules. Langmuir, 2010, 26, 533-537.	3.5	35
29	Electroâ€conductive doubleâ€network hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 790-796.	2.1	35
30	Effects of polymers and their chain lengths on the contraction of poly(methacrylic acid) network. Journal of Polymer Science, Polymer Letters Edition, 1980, 18, 281-286.	0.4	34
31	Growth of Large Polymerâ^'Actin Complexes. Bioconjugate Chemistry, 2003, 14, 1185-1190.	3.6	34
32	Polymerization of phosphazene crystal by plasma-exposure. Nature, 1980, 286, 693-694.	27.8	32
33	Effect of Aspect Ratio on Protein Diffusion in Hydrogels. Journal of Physical Chemistry B, 2000, 104, 9904-9908.	2.6	32
34	Self-Repairing Filamentous Actin Hydrogel with Hierarchical Structure. Biomacromolecules, 2011, 12, 4173-4177.	5.4	32
35	Substrate Effects of Gel Surfaces on Cell Adhesion and Disruption. Biomacromolecules, 2000, 1, 162-167.	5.4	31
36	Dynamic self-organization and polymorphism of microtubule assembly through active interactions with kinesin. Soft Matter, 2011, 7, 5654.	2.7	30

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37	Thermoresponsive Microtubule Hydrogel with High Hierarchical Structure. Biomacromolecules, 2011, 12, 1409-1413.	5.4	30
38	Photovoltaic and Catalytic Activity of Plasma-Polymerized Phthalocyanine Films. Journal of Macromolecular Science Part A, Chemistry, 1987, 24, 403-418.	0.3	29
39	Formation of Well-Oriented Microtubules with Preferential Polarity in a Confined Space under a Temperature Gradient. Journal of the American Chemical Society, 2009, 131, 18089-18095.	13.7	29
40	Microtubule bundle formation driven by ATP: the effect of concentrations of kinesin, streptavidin and microtubules. Nanotechnology, 2010, 21, 145603.	2.6	29
41	Protein and Sugar Separation by Mechanochemical Membrane Having â€œChemical Valveâ€•Function. Polymer Journal, 1983, 15, 279-284.	2.7	28
42	Preparation of polymeric metalâ€tetracyanoquinodimethane film and its bistable switching. Applied Physics Letters, 1992, 61, 2787-2789.	3.3	28
43	Nanopattern Fabrication of Gold on Hydrogels and Application to Tunable Photonic Crystal. Advanced Materials, 2012, 24, 5243-5248.	21.0	28
44	Anomalous chemomechanical characteristics of electro-activated polyelectrolyte gels. Journal of Polymer Science, Part C: Polymer Letters, 1987, 25, 481-485.	0.7	27
45	Anisotropic Nucleation Growth of Actin Bundle:Â A Model for Determining the Well-Defined Thickness of Bundlesâ€. Biochemistry, 2006, 45, 10313-10318.	2.5	25
46	Oscillation of electrical current in water-swollen polyelectrolyte gels. Die Makromolekulare Chemie, 1988, 189, 597-605.	1.1	22
47	Plasma-polymerized organosiloxane membranes prepared by simultaneous doping of I2 molecules and the effect on liquid permeability. Journal of Polymer Science: Polymer Chemistry Edition, 1985, 23, 2425-2439.	0.8	17
48	Interaction of plasma-polymerized poly(organosiloxane) films with platelets. Die Makromolekulare Chemie Rapid Communications, 1985, 6, 495-502.	1.1	17
49	Polarity and Motility of Large Polymerâ^'Actin Complexes. Biomacromolecules, 2005, 6, 845-849.	5.4	16
50	Actin Network Formation by Unidirectional Polycation Diffusion. Langmuir, 2007, 23, 6257-6262.	3.5	16
51	Plasma-initiated emulsion polymerization of alkyl acrylates and methacrylates. Journal of Polymer Science, Polymer Letters Edition, 1983, 21, 643-648.	0.4	15
52	Presence of Electrostatic Potential Wells in the Ionic Polymer Network. Chemistry Letters, 1995, 24, 449-450.	1.3	15
53	How to Integrate Biological Motors towards Bioâ€Actuators Fueled by ATP. Macromolecular Bioscience, 2011, 11, 1314-1324.	4.1	15
54	Title is missing!. Die Makromolekulare Chemie, 1975, 176, 1893-1896.	1.1	14

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55	Title is missing!. Die Makromolekulare Chemie Rapid Communications, 1981, 2, 411-415.	1.1	13
56	Microtubule teardrop patterns. Scientific Reports, 2015, 5, 9581.	3.3	13
57	Plasma-exposed polymerization of cyclic organosiloxanes in the condensed phase. Journal of Polymer Science, Polymer Letters Edition, 1981, 19, 369-374.	0.4	10
58	Chemically cross-linked microtubule assembly shows enhanced dynamic motions on kinesins. RSC Advances, 2014, 4, 32953.	3.6	10
59	Thermo- and photo-enhanced microtubule formation from Ru(bpy)32+-conjugated tubulin. Journal of Materials Chemistry B, 2014, 2, 41-45.	5.8	10
60	Effect of microtubule polymerization on photoinduced hydrogen generation. Chemical Communications, 2015, 51, 11607-11610.	4.1	9
61	Mechanism on Polarity Sorting of Actin Bundles Formed with Polycations. Langmuir, 2009, 25, 1554-1557.	3.5	7
62	Noncationic Rigid and Anisotropic Coiled-Coil Proteins Exhibit Cell-Penetration Activity. Langmuir, 2015, 31, 8218-8223.	3.5	6
63	Radical polymerization reactivities of methacrylic acid coordinated to cobalt(III) complexes. Die Makromolekulare Chemie, 1976, 177, 1259-1271.	1.1	5
64	Title is missing!. Die Makromolekulare Chemie, 1976, 177, 2209-2213.	1.1	5
65	ATPâ€fueled soft gel machine with wellâ€oriented structure constructed using actinâ€myosin system. Journal of Applied Polymer Science, 2009, 114, 2087-2092.	2.6	5
66	Design of Polymer Networks Involving a Photoinduced Electronic Transmission Circuit toward Artificial Photosynthesis. Langmuir, 2016, 32, 626-631.	3.5	5
67	Effects of polymeric cations and their gels on aspirin hydrolysis. Die Makromolekulare Chemie, 1979, 180, 1617-1621.	1.1	4
68	Characterization of Crystalline Poly(trioxane) and Poly(tetraoxane) Obtained through Plasma-Initiated Polymerization. ACS Symposium Series, 1979, , 263-274.	0.5	4
69	Title is missing!. Die Makromolekulare Chemie, 1976, 177, 1273-1282.	1.1	3
70	Intrahelical Interactions in an Î±-Helical Coiled Coil Determine the Structural Stability of Tropomyosin. Biochemistry, 2020, 59, 2194-2202.	2.5	3
71	Efficient Cellular Protein Transduction Using a Coiled-coil Protein Carrier. Chemistry Letters, 2017, 46, 719-721.	1.3	2
72	Polymer gels as artificial soft tissue. Polymer Science - Series C, 2017, 59, 3-10.	1.7	2

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73	Intelligent gels â€“ artificial soft tissue for the next era. Polymer International, 2022, 71, 616-629.	3.1	2
74	Novel Polymerizations Initiated by Plasma Exposure. Journal of Fiber Science and Technology, 1981, 37, P243-P251.	0.0	2
75	Biomimetic Functions of Synthetic Polymer Gels. , 2016, , 73-79.		1
76	Patterning: Nanopattern Fabrication of Gold on Hydrogels and Application to Tunable Photonic Crystal (Adv. Mater. 38/2012). Advanced Materials, 2012, 24, 5242-5242.	21.0	0
77	Effect of Microtubules Hierarchy on Photoinduced Hydrogen Generation and Application to Artificial Photosynthesis. Materials Research Society Symposia Proceedings, 2014, 1621, 229-233.	0.1	0
78	Microtubule Gel. , 2016, , 35-58.		0
79	Employing Cytoskeletal Treadmilling in Bio-actuators. , 2019, , 711-722.		0