Madoka Takai

List of Publications by Year
in descending order

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103	2,369	201575	223716
papers	citations	27 h-index	46 g-index

109	109	109	3086
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Development of Soft Interface Biomaterials from Data of Protein Adsorption and Cell Adhesion. Vacuum and Surface Science, 2022, 65, 21-26.	0.0	0
2	Cell Adhesion and Migration on Thickness Gradient Bilayer Polymer Brush Surfaces: Effects of Properties of Polymeric Materials of the Underlayer. ACS Applied Materials & Interfaces, 2022, 14, 2605-2617.	4.0	3
3	Design of biointerfaces composed of soft materials using controlled radical polymerizations. Journal of Materials Chemistry B, 2022, 10, 1473-1485.	2.9	6
4	Silver-loaded carboxymethyl cellulose nonwoven sheet with controlled counterions for infected wound healing. Carbohydrate Polymers, 2022, 286, 119289.	5.1	26
5	Evaluation of bacterial adhesion strength on phospholipid copolymer films with antibacterial ability using microfluidic shear devices. Journal of Materials Chemistry B, 2021, 9, 4480-4487.	2.9	6
6	Ultrasound-Based Scaffold-Free Core-Shell Multicellular Tumor Spheroid Formation. Micromachines, 2021, 12, 329.	1.4	8
7	Facile preparation of water-soluble multiwalled carbon nanotubes bearing phosphorylcholine groups for heat generation under near-infrared irradiation. Polymer Journal, 2021, 53, 1001-1009.	1.3	1
8	Single cell organization and cell cycle characterization of DNA stained multicellular tumor spheroids. Scientific Reports, 2021, 11, 17076.	1.6	8
9	Fluorescent polymeric nanoparticle for ratiometric temperature sensing allows real-time monitoring in influenza virus-infected cells. Journal of Colloid and Interface Science, 2021, 601, 825-832.	5.0	7
10	A Modifiable, Spontaneously Formed Polymer Gel with Zwitterionic and N-Hydroxysuccinimide Moieties for an Enzymatic Biofuel Cell. ACS Applied Polymer Materials, 2021, 3, 631-639.	2.0	6
11	pH-Responsive Water-Soluble Polymer Carriers for Cell-Selective Metabolic Sialylation Labeling. Analytical Chemistry, 2021, 93, 15420-15429.	3.2	4
12	Poly(2-aminoethyl methacrylate)-based polyampholyte brush surface with carboxylic groups to improve blood compatibility. Journal of Biomaterials Science, Polymer Edition, 2020, 31, 679-693.	1.9	4
13	Protein adsorption behavior in nanoscale phase-separated polymer coatings prepared using poly(2-methacrylolyoxyethyl phosphorylcholine)-containing amphiphilic block copolymers. European Polymer Journal, 2020, 135, 109885.	2.6	7
14	Hydrophilic surfaces from simple dip-coating method: amphiphilic block copolymers with zwitterionic group form antifouling coatings under atmospheric conditions. Materials Advances, 2020, 1, 2737-2744.	2.6	10
15	High Dye-Loaded and Thin-Shell Fluorescent Polymeric Nanoparticles for Enhanced FRET Imaging of Protein-Specific Sialylation on the Cell Surface. Analytical Chemistry, 2020, 92, 13271-13280.	3.2	16
16	Structure and properties of thermoresponsive gels formed by RAFT polymerization: effect of the RAFT agent content. Polymer Journal, 2020, 52, 1407-1412.	1.3	8
17	â€œNanoâ€ An Emerging Avenue in Electrochemical Detection of Neurotransmitters. ACS Chemical Neuroscience, 2020, 11, 4024-4047.	1.7	39
18	Imaging the Nanophase-separated Structure of Block Copolymer Thin Film by Atomic Force Microscopy in Aqueous Solution. Chemistry Letters, 2020, 49, 641-644.	0.7	4

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19	Study on polyethylene glycol cross-linker in peptide-conjugated antibody on efficiency of cell capture and release. Analytical Biochemistry, 2020, 602, 113790.	1.1	2
20	Enhanced Stability of Lipid Structures by Dip-Pen Nanolithography on Block-Type MPC Copolymer. Molecules, 2020, 25, 2768.	1.7	8
21	Strong Cationic Radical Initiatorâ€Based Design of a Thermoresponsive Hydrogel Showing Drastic Volume Transition. Macromolecular Chemistry and Physics, 2020, 221, 1900507.	1.1	1
22	Surface functionalization of carbon-based sensors with biocompatible polymer to enable electrochemical measurement in protein-rich environment. Sensors and Actuators B: Chemical, 2020, 309, 127758.	4.0	11
23	Study on Bacterial Antiadhesiveness of Stiffness and Thickness Tunable Cross-Linked Phospholipid Copolymer Thin-Film. ACS Applied Bio Materials, 2020, 3, 1079-1087.	2.3	14
24	Unique Cancer Migratory Behaviors in Confined Spaces of Microgroove Topography with Acute Wall Angles. Scientific Reports, 2020, 10, 6110.	1.6	6
25	Protein adsorption behavior on reduced graphene oxide and boron-doped diamond investigated by electrochemical impedance spectroscopy. Carbon, 2019, 152, 354-362.	5.4	30
26	Rapid multiplex microfiber-based immunoassay for anti-MERS-CoV antibody detection. Sensing and Bio-Sensing Research, 2019, 26, 100304.	2.2	14
27	Control of Protein Adsorption to Cyclo Olefin Polymer by the Hofmeister Effect. Journal of Pharmaceutical Sciences, 2019, 108, 1686-1691.	1.6	6
28	Membrane-anchored ratiometric fluorescent probe forvisualizing the extracellular juxtamembrane pH. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2019, 92, JKP-13.	0.0	0
29	Influence of cell adhesive molecules attached onto PEG-lipid-modified fluid surfaces on cell adhesion. Colloids and Surfaces B: Biointerfaces, 2019, 175, 375-383.	2.5	6
30	Cell surface pH imaging using a membrane-anchored ratiometric fluorescence probe: Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 for Annual Meeting of the Japanese Pharmacological Society, 2019, 92, 2-S14-1.	0.0	0
31	Current Status and Future Prospects of Surface Modification and Coating Technology for Membrane Oxygenator. Membrane, 2019, 44, 299-305.	0.0	0
32	Highly sensitive and rapid biosensing on a three-dimensional polymer platform. Polymer Journal, 2018, 50, 847-855.	1.3	2
33	Fabrication and assessment of an electrospun polymeric microfiber-based platform under bulk flow conditions with rapid and efficient antigen capture. Analyst, The, 2018, 143, 865-873.	1.7	11
34	Rapid and highly efficient capture and release of cancer cells using polymeric microfibers immobilized with enzyme-cleavable peptides. Acta Biomaterialia, 2018, 67, 32-41.	4.1	16
35	Electrospun Polymeric Microfiber Substrates for Rapid Protein and Cell-based Assays. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2018, 31, 65-69.	0.1	2
36	Acoustic formation of multicellular tumor spheroids enabling on-chip functional and structural imaging. Lab on A Chip, 2018, 18, 2466-2476.	3.1	51

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37	A microsensing system for the in vivo real-time monitoring of local drug kinetics. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, PO2-14-14.	0.0	0
38	An approach to the research on ion and water properties in the interphase between the plasma membrane and bulk extracellular solution. Journal of Physiological Sciences, 2017, 67, 439-445.	0.9	12
39	Nano-structural comparison of 2-methacryloyloxyethyl phosphorylcholine- and ethylene glycol-based surface modification for preventing protein and cell adhesion. Colloids and Surfaces B: Biointerfaces, 2017, 159, 655-661.	2.5	16
40	A microsensing system for the in vivo real-time detection of local drug kinetics. Nature Biomedical Engineering, 2017, 1, 654-666.	11.6	68
41	Differences in Three-Dimensional Geometric Recognition by Non-Cancerous and Cancerous Epithelial Cells on Microgroove-Based Topography. Scientific Reports, 2017, 7, 4244.	1.6	13
42	Ratiometric fluorescence imaging of cell surface pH by poly(ethylene glycol)-phospholipid conjugated with fluorescein isothiocyanate. Scientific Reports, 2017, 7, 17484.	1.6	34
43	Analysis of the Changes in Expression Levels of Sialic Acid on Influenza-Virus-Infected Cells Using Lectin-Tagged Polymeric Nanoparticles. Frontiers in Microbiology, 2016, 7, 1147.	1.5	5
44	Nonâ€Osmotic Hydrogels: A Rational Strategy for Safely Degradable Hydrogels. Angewandte Chemie - International Edition, 2016, 55, 9282-9286.	7.2	58
45	Nonâ€Osmotic Hydrogels: A Rational Strategy for Safely Degradable Hydrogels. Angewandte Chemie, 2016, 128, 9428-9432.	1.6	12
46	Simultaneous characterization of proteinâ€“material and cellâ€“protein interactions using dynamic QCM-D analysis on SAM surfaces. Biomaterials Science, 2016, 4, 989-997.	2.6	30
47	Significant Heterogeneity and Slow Dynamics of the Unfolded Ubiquitin Detected by the Line Confocal Method of Single-Molecule Fluorescence Spectroscopy. Journal of Physical Chemistry B, 2016, 120, 8818-8829.	1.2	8
48	Formation of reversed nanoscale phase-separated structures using poly(2-methacryloyloxyethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	1.8	6
49	Enhancement of Cell Adhesion on a Phosphorylcholine-Based Surface through the Interaction with DNA Mediated by Ca²⁺ Ions. Journal of Physical Chemistry B, 2016, 120, 12272-12278.	1.2	2
50	Fast and selective cell isolation from blood sample by microfiber fabric system with vacuum aspiration. Science and Technology of Advanced Materials, 2016, 17, 807-815.	2.8	9
51	Cellular Response to Non-contacting Nanoscale Sublayer: Cells Sense Several Nanometer Mechanical Property. ACS Applied Materials & Interfaces, 2016, 8, 10710-10716.	4.0	14
52	Positive regulation of the enzymatic activity of gastric H + ,K + -ATPase by sialylation of its Î²-subunit. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1228-1235.	1.4	7
53	Influence of molecular weight of PEG chain on interaction between streptavidin and biotinâ€“PEG-conjugated phospholipids studied with QCM-D. Acta Biomaterialia, 2016, 30, 135-143.	4.1	22
54	Development of Recycling System of Precious Metals and Rare Metals Using DMSO Solvent Containing CuBr₂. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2015, 79, 41-48.	0.2	11

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55	Surface design for high-sensitivity micro-biosensor. , 2015, , .		0
56	Role of Interfacial Water in Protein Adsorption onto Polymer Brushes as Studied by SFG Spectroscopy and QCM. Journal of Physical Chemistry C, 2015, 119, 17193-17201.	1.5	84
57	Polymer brush biointerfaces for highly sensitive biosensors that preserve the structure and function of immobilized proteins. Sensors and Actuators B: Chemical, 2015, 216, 428-433.	4.0	39
58	Slope-Dependent Cell Motility Enhancements at the Walls of PEG-Hydrogel Microgroove Structures. Langmuir, 2015, 31, 10215-10222.	1.6	13
59	Stable surface coating of silicone elastomer with phosphorylcholine and organosilane copolymer with cross-linking for repelling proteins. Colloids and Surfaces B: Biointerfaces, 2015, 134, 384-391.	2.5	40
60	Design of Soft-Interface Materials for Highly Sensitive Bio-Sensing Devices. Materials Research Society Symposia Proceedings, 2014, 1599, 1.	0.1	0
61	Lectin-Tagged Fluorescent Polymeric Nanoparticles for Targeting of Sialic Acid on Living Cells. Biomacromolecules, 2014, 15, 2012-2018.	2.6	39
62	Effect of the distribution of adsorbed proteins on cellular adhesion behaviors using surfaces of nanoscale phase-reversed amphiphilic block copolymers. Acta Biomaterialia, 2014, 10, 2988-2995.	4.1	18
63	Zone electrophoresis of proteins in poly(dimethylsiloxane) (PDMS) microchip coated with physically adsorbed amphiphilic phospholipid polymer. Microfluidics and Nanofluidics, 2013, 14, 951-959.	1.0	19
64	Colorimetric microchip assay using our own whole blood collected by a painless needle for home medical care. Analyst, The, 2013, 138, 6469.	1.7	3
65	Redox phospholipid polymer microparticles as doubly functional polymer support for immobilization of enzyme oxidase. Colloids and Surfaces B: Biointerfaces, 2013, 102, 857-863.	2.5	15
66	NONBIOFOULING SURFACES COVERED BY BIO-INSPIRED 2-METHACRYLOYLOXYETHYL PHOSPHORYLCHOLINE POLYMER BRUSH BY USE OF POLYMERIC PHOTOINIFERTER. Nano LIFE, 2012, 02, 1242003.	0.6	1
67	Design of Biointerface Formed by the Biocompatible Polymer Films and Application to PDMS Microchip Electrophoresis. Membrane, 2012, 37, 189-194.	0.0	0
68	OS7-2-3 Biosensor based on direct electron transfer with titanium oxide nanofiber. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2012, 2012.4, 21-22.	0.0	0
69	Quick and simple modification of a poly(dimethylsiloxane) surface by optimized molecular design of the anti-biofouling phospholipid copolymer. Soft Matter, 2011, 7, 2968.	1.2	39
70	Significance of Antibody Orientation Unraveled: Well-Oriented Antibodies Recorded High Binding Affinity. Analytical Chemistry, 2011, 83, 1969-1976.	3.2	183
71	The effects of nanophase-separated amphiphilic domains on cell adhesion. Transactions of the Materials Research Society of Japan, 2011, 36, 577-580.	0.2	3
72	Enzyme oxidase-immobilized phospholipid polymer microparticles for biofuel cell application. Transactions of the Materials Research Society of Japan, 2011, 36, 531-534.	0.2	2

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73	Quantum dots covered with pH responsive and biocompatible phospholipid polymer for trafficking in endocytosis process. Transactions of the Materials Research Society of Japan, 2011, 36, 265-268.	0.2	1
74	Continuous preparation of cytocompatible poly(2-methacryloyloxyethyl phosphorylcholine) microcapsule for cell immobilization using microfluidics. Transactions of the Materials Research Society of Japan, 2011, 36, 569-572.	0.2	0
75	Separation capability of proteins using microfluidic system with dendrimer modified surface. Transactions of the Materials Research Society of Japan, 2011, 36, 541-544.	0.2	0
76	Layer-by-Layer Building up of Redox Phospholipid Polymer Hydrogel Electrode for Biosensor. Transactions of the Materials Research Society of Japan, 2011, 36, 545-548.	0.2	0
77	Phospholipid Polymer Biointerfaces for Lab-on-a-Chip Devices. Annals of Biomedical Engineering, 2010, 38, 1938-1953.	1.3	42
78	Super-hydrophilic silicone hydrogels with interpenetrating poly(2-methacryloyloxyethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542 Td (ph	5.7	108
79	Stabilization of phospholipid polymer surface with three-dimensional nanometer-scaled structure for highly sensitive immunoassay. Colloids and Surfaces B: Biointerfaces, 2010, 77, 263-269.	2.5	19
80	Control of surface modification uniformity inside small-diameter polyethylene/poly(vinyl acetate) composite tubing prepared with supercritical carbon dioxide. Journal of Materials Chemistry, 2010, 20, 4897.	6.7	5
81	Bioinspired interface for nanobiodevices based on phospholipid polymer chemistry. Journal of the Royal Society Interface, 2009, 6, S279-91.	1.5	75
82	Cell adhesion on phase-separated surface of block copolymer composed of poly(2-methacryloyloxyethyl phosphorylcholine) and poly(dimethylsiloxane). Biomaterials, 2009, 30, 5330-5340.	5.7	67
83	Protein adsorption and cell adhesion on cationic, neutral, and anionic 2-methacryloyloxyethyl phosphorylcholine copolymer surfaces. Biomaterials, 2009, 30, 4930-4938.	5.7	141
84	Suppression of Protein Adsorption on a Charged Phospholipid Polymer Interface. Biomacromolecules, 2009, 10, 267-274.	2.6	44
85	A Novel Interface for High-Sensitive Immunoassay Using Orientation Controlled Protein A and Non-biofouling Phospholipid Polymer Surface. Transactions of the Materials Research Society of Japan, 2009, 34, 205-208.	0.2	1
86	Super-hydrophilic silicone hydrogels composed of interpenetrating polymer networks with phospholipid polymer. Transactions of the Materials Research Society of Japan, 2009, 34, 193-196.	0.2	0
87	Surface tethering of phosphorylcholine groups onto poly(dimethylsiloxane) through swellingâ€“deswelling methods with phospholipids moiety containing ABA-type block copolymers. Biomaterials, 2008, 29, 1367-1376.	5.7	121
88	Hydration of phosphorylcholine groups attached to highly swollen polymer hydrogels studied by thermal analysis. Polymer, 2008, 49, 4652-4657.	1.8	120
89	Polymer Nanoparticles Covered with Phosphorylcholine Groups and Immobilized with Antibody for High-Affinity Separation of Proteins. Biomacromolecules, 2008, 9, 828-833.	2.6	97
90	Rapid Development of Hydrophilicity and Protein Adsorption Resistance by Polymer Surfaces Bearing Phosphorylcholine and Naphthalene Groups. Langmuir, 2008, 24, 10340-10344.	1.6	69

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91	Bioconjugated Phospholipid Polymer Biointerface for Enzyme-Linked Immunosorbent Assay. Biomacromolecules, 2008, 9, 403-407.	2.6	58
92	Micropatterned Biorecognition Surfaces on Nonbiofouling Polymer by Living Radical Photopolymerization for High Sensitivity Biosensing. Materials Research Society Symposia Proceedings, 2008, 1093, 10401.	0.1	0
93	New Nanocomposite Biomaterials Controlling Surface and Bulk Properties using Supercritical Carbon Dioxide. Materials Research Society Symposia Proceedings, 2008, 1097, 1.	0.1	0
94	Microchip Immunoassay Using High Density Bioconjugation on the Phospholipid Polymer Interface. Transactions of the Materials Research Society of Japan, 2008, 33, 787-790.	0.2	4
95	Healthcare Chip for Home Medical Diagnosis. , 2007, , .		8
96	Phospholipid polymer hydrogel formed by the photodimerization of cinnamoyl groups in the polymer side chain. Journal of Applied Polymer Science, 2007, 104, 44-50.	1.3	11
97	Antibody immobilization to phospholipid polymer layer on gold substrate of quartz crystal microbalance immunosensor. Colloids and Surfaces B: Biointerfaces, 2007, 55, 164-172.	2.5	31
98	Characterization of a self-oscillating polymer with periodic soluble-insoluble changes. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1578-1588.	2.4	6
99	Phosphorylcholine Group-immobilized Surface Prepared on Polydimethylsiloxane Membrane by In Situ Reaction for Its Reduced Biofouling. Nanobiotechnology, 2007, 3, 83-88.	1.2	13
100	Synthesis of single-walled carbon nanotubes in mesoporous silica film and their field emission property. Applied Physics A: Materials Science and Processing, 2006, 84, 247-250.	1.1	11
101	Spontaneously forming hydrogel from water-soluble random- and block-type phospholipid polymers. Biomaterials, 2005, 26, 6853-6862.	5.7	28
102	Synthesis of sequence-controlled copolymers from extremely polar and apolar monomers by living radical polymerization and their phase-separated structures. Journal of Polymer Science Part A, 2005, 43, 6073-6083.	2.5	74
103	Healthcare Chip for Checking Health Condition from Analysis of Trace Blood Collected by Painless Needle. Japanese Journal of Applied Physics, 2003, 42, 3722-3727.	0.8	46