Shinji Sakai

List of Publications by Year
in descending order

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153 papers	4,460 citations	87723 38 h-index	143772 57 g-index
159 all docs	159 docs citations	159 times ranked	4698 citing authors

#	Article	IF	Citations
1	An injectable, in situ enzymatically gellable, gelatin derivative for drug delivery and tissue engineering. Biomaterials, 2009, 30, 3371-3377.	5.7	288
2	Synthesis and characterization of both ionically and enzymatically cross-linkable alginate. Acta Biomaterialia, 2007, 3, 495-501.	4.1	163
3	Synthesis of enzymatically-gellable carboxymethylcellulose for biomedical applications. Journal of Bioscience and Bioengineering, 2007, 104, 30-33.	1.1	142
4	Novel chitosan derivative soluble at neutral pH and in-situ gellable via peroxidase-catalyzed enzymatic reaction. Journal of Materials Chemistry, 2009, 19, 230-235.	6.7	120
5	Polyvinyl alcohol-based hydrogel dressing gellable on-wound via a co-enzymatic reaction triggered by glucose in the wound exudate. Journal of Materials Chemistry B, 2013, 1, 5067.	2.9	96
6	Synthesis and transport characterization of alginate/aminopropyl-silicate/alginate microcapsule: application to bioartificial pancreas. Biomaterials, 2001, 22, 2827-2834.	5.7	85
7	Development of mammalian cell-enclosing subsieve-size agarose capsules (<100Î¼m) for cell therapy. Biomaterials, 2005, 26, 4786-4792.	5.7	81
8	Oxidized Alginate-Cross-Linked Alginate/Gelatin Hydrogel Fibers for Fabricating Tubular Constructs with Layered Smooth Muscle Cells and Endothelial Cells in Collagen Gels. Biomacromolecules, 2008, 9, 2036-2041.	2.6	77
9	In vitro and in vivo evaluation of alginate/solâ€“gel synthesized aminopropyl-silicate/alginate membrane for bioartificial pancreas. Biomaterials, 2002, 23, 4177-4183.	5.7	73
10	Differentiation potential of human adipose stem cells bioprinted with hyaluronic acid/gelatinâ€based bioink through microextrusion and visible lightâ€initiated crosslinking. Biopolymers, 2018, 109, e23080.	1.2	73
11	Enzymatically crosslinked carboxymethylcelluloseâ€“tyramine conjugate hydrogel: Cellular adhesiveness and feasibility for cell sheet technology. Acta Biomaterialia, 2009, 5, 554-559.	4.1	69
12	Synthesis of an agarose-gelatin conjugate for use as a tissue engineering scaffold. Journal of Bioscience and Bioengineering, 2007, 103, 22-26.	1.1	65
13	Enzymatically fabricated and degradable microcapsules for production of multicellular spheroids with well-defined diameters of less than 150 Î¼m. Biomaterials, 2009, 30, 5937-5942.	5.7	65
14	Cell-enclosing gelatin-based microcapsule production for tissue engineering using a microfluidic flow-focusing system. Biomicrofluidics, 2011, 5, 13402.	1.2	64
15	Visible Light-Induced Hydrogelation of an Alginate Derivative and Application to Stereolithographic Bioprinting Using a Visible Light Projector and Acid Red. Biomacromolecules, 2018, 19, 672-679.	2.6	63
16	Production of butyl-biodiesel using lipase physically-adsorbed onto electrospun polyacrylonitrile fibers. Bioresource Technology, 2010, 101, 7344-7349.	4.8	61
17	Production of cellâ€enclosing hollowâ€core agarose microcapsules via jetting in waterâ€immiscible liquid paraffin and formation of embryoid bodyâ€like spherical tissues from mouse ES cells enclosed within these microcapsules. Biotechnology and Bioengineering, 2008, 99, 235-243.	1.7	58
18	Immobilization of Pseudomonas cepacia lipase onto electrospun polyacrylonitrile fibers through physical adsorption and application to transesterification in nonaqueous solvent. Biotechnology Letters, 2010, 32, 1059-1062.	1.1	58

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19	Peroxidase-Catalyzed Cell Encapsulation in Subsieve-Size Capsules of Alginate with Phenol Moieties in Water-Immiscible Fluid Dissolving H₂O₂. Biomacromolecules, 2007, 8, 2622-2626.	2.6	56
20	Novel technique to control inner and outer diameter of calcium-alginate hydrogel hollow microfibers, and immobilization of mammalian cells. Biochemical Engineering Journal, 2010, 49, 143-147.	1.8	56
21	Development and Characterization of a Silica Monolith Immobilized Enzyme Micro-bioreactor. Industrial & Engineering Chemistry Research, 2005, 44, 236-240.	1.8	55
22	Control of cellular adhesiveness in an alginate-based hydrogel by varying peroxidase and H2O2 concentrations during gelation. Acta Biomaterialia, 2010, 6, 1446-1452.	4.1	55
23	Horseradish Peroxidase Catalyzed Hydrogelation for Biomedical, Biopharmaceutical, and Biofabrication Applications. Chemistry - an Asian Journal, 2017, 12, 3098-3109.	1.7	52
24	Peritoneal adhesion prevention by a biodegradable hyaluronic acid-based hydrogel formed in situ through a cascade enzyme reaction initiated by contact with body fluid on tissue surfaces. Acta Biomaterialia, 2015, 24, 152-158.	4.1	49
25	Biocompatibility of subsieve-size capsules versus conventional-size microcapsules. Journal of Biomedical Materials Research - Part A, 2006, 78A, 394-398.	2.1	48
26	Horseradish peroxidase-catalyzed formation of hydrogels from chitosan and poly(vinyl alcohol) derivatives both possessing phenolic hydroxyl groups. Carbohydrate Polymers, 2014, 111, 404-409.	5.1	48
27	Control of molecular weight cut-off for immunoisolation by multilayering glycol chitosan-alginate polyion complex on alginate-based microcapsules. Journal of Microencapsulation, 2000, 17, 691-699.	1.2	47
28	Highly efficient and low toxic skin penetrants composed of amino acid ionic liquids. RSC Advances, 2016, 6, 87753-87755.	1.7	46
29	In Situ Simultaneous Proteinâ^'Polysaccharide Bioconjugation and Hydrogelation Using Horseradish Peroxidase. Biomacromolecules, 2010, 11, 1370-1375.	2.6	45
30	Both ionically and enzymatically crosslinkable alginateâ€“tyramine conjugate as materials for cell encapsulation. Journal of Biomedical Materials Research - Part A, 2008, 85A, 345-351.	2.1	44
31	Impact of the composition of alginate and gelatin derivatives in bioconjugated hydrogels on the fabrication of cell sheets and spherical tissues with living cell sheaths. Acta Biomaterialia, 2013, 9, 6616-6623.	4.1	44
32	Horseradish peroxidase/catalase-mediated cell-laden alginate-based hydrogel tube production in two-phase coaxial flow of aqueous solutions for filament-like tissues fabrication. Biofabrication, 2013, 5, 015012.	3.7	44
33	Fabrication of endothelialized tube in collagen gel as starting point for self-developing capillary-like network to construct three-dimensional organs in vitro. Biotechnology and Bioengineering, 2006, 95, 1-7.	1.7	43
34	Peroxidase-catalyzed microextrusion bioprinting of cell-laden hydrogel constructs in vaporized ppm-level hydrogen peroxide. Biofabrication, 2018, 10, 045007.	3.7	43
35	Effect of a hepatocyte growth factor/heparin-immobilized collagen system on albumin synthesis and spheroid formation by hepatocytes. Journal of Bioscience and Bioengineering, 2010, 110, 208-216.	1.1	42
36	Calcium alginate microcapsules with spherical liquid cores templated by gelatin microparticles for mass production of multicellular spheroids. Acta Biomaterialia, 2010, 6, 3132-3137.	4.1	41

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37	Development of mammalian cell-enclosing calcium-alginate hydrogel fibers in a co-flowing stream. Biotechnology Journal, 2006, 1, 1014-1017.	1.8	39
38	Surface immobilization of poly(ethyleneimine) and plasmid DNA on electrospun poly(<scp>L</scp>â€lactic acid) fibrous mats using a layerâ€byâ€layer approach for gene delivery. Journal of Biomedical Materials Research - Part A, 2009, 88A, 281-287.	2.1	39
39	Dropâ€Onâ€Drop Multimaterial 3D Bioprinting Realized by Peroxidaseâ€Mediated Crossâ€Linking. Macromolecular Rapid Communications, 2018, 39, 1700534.	2.0	39
40	Fabrication of Artificial Endothelialized Tubes with Predetermined Three-Dimensional Configuration from Flexible Cell-Enclosing Alginate Fibers. Biotechnology Progress, 2007, 23, 182-186.	1.3	38
41	Prospective use of electrospun ultra-fine silicate fibers for bone tissue engineering. Biotechnology Journal, 2006, 1, 958-962.	1.8	37
42	Agaroseâ€“gelatin conjugate for adherent cell-enclosing capsules. Biotechnology Letters, 2007, 29, 731-735.	1.1	35
43	Production of endothelial cell-enclosing alginate-based hydrogel fibers with a cell adhesive surface through simultaneous cross-linking by horseradish peroxidase-catalyzed reaction in a hydrodynamic spinning process. Journal of Bioscience and Bioengineering, 2012, 114, 353-359.	1.1	35
44	On-Cell Surface Cross-Linking of Polymer Molecules by Horseradish Peroxidase Anchored to Cell Membrane for Individual Cell Encapsulation in Hydrogel Sheath. ACS Macro Letters, 2014, 3, 972-975.	2.3	35
45	Enzymatically-gellable galactosylated chitosan: Hydrogel characteristics and hepatic cell behavior. International Journal of Biological Macromolecules, 2016, 92, 892-899.	3.6	35
46	Production of hyaluronicâ€acidâ€based cellâ€enclosing microparticles and microcapsules via enzymatic reaction using a microfluidic system. Journal of Applied Polymer Science, 2016, 133, .	1.3	34
47	Impact of immobilizing of low molecular weight hyaluronic acid within gelatin-based hydrogel through enzymatic reaction on behavior of enclosed endothelial cells. International Journal of Biological Macromolecules, 2017, 97, 308-316.	3.6	34
48	Glucose-triggered co-enzymatic hydrogelation of aqueous polymer solutions. RSC Advances, 2012, 2, 1502-1507.	1.7	33
49	Fabrication of in vitro three-dimensional multilayered blood vessel model using human endothelial and smooth muscle cells and high-strength PEG hydrogel. Journal of Bioscience and Bioengineering, 2013, 116, 231-234.	1.1	32
50	Silk fibroin nanofibers: a promising ink additive for extrusion three-dimensional bioprinting. Materials Today Bio, 2020, 8, 100078.	2.6	32
51	Preparation of mammalian cell-enclosing subsieve-sized capsules (<100 ?m) in a coflowing stream. Biotechnology and Bioengineering, 2004, 86, 168-173.	1.7	31
52	Phenolic Hydroxy Groups Incorporated for the Peroxidaseâ€Catalyzed Gelation of a Carboxymethylcellulose Support: Cellular Adhesion and Proliferation. Macromolecular Bioscience, 2009, 9, 262-267.	2.1	31
53	Hematin is an Alternative Catalyst to Horseradish Peroxidase for In Situ Hydrogelation of Polymers with Phenolic Hydroxyl Groups In Vivo. Biomacromolecules, 2010, 11, 2179-2183.	2.6	31
54	Characterization of encapsulated cells within hyaluronic acid and alginate microcapsules produced via horseradish peroxidase-catalyzed crosslinking. Journal of Biomaterials Science, Polymer Edition, 2019, 30, 295-307.	1.9	31

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55	Title is missing!. Journal of Sol-Gel Science and Technology, 2003, 28, 267-272.	1.1	30
56	Collagen and nano-hydroxyapatite interactions in alginate-based microcapsule provide an appropriate osteogenic microenvironment for modular bone tissue formation. Carbohydrate Polymers, 2022, 277, 118807.	5.1	30
57	Subsieve-size agarose capsules enclosing ifosfamide-activating cells: a strategy toward chemotherapeutic targeting to tumors. Molecular Cancer Therapeutics, 2005, 4, 1786-1790.	1.9	29
58	Application of silicate electrospun nanofibers for cell culture. Journal of Sol-Gel Science and Technology, 2008, 48, 350-355.	1.1	29
59	Cell-selective encapsulation in hydrogel sheaths via biospecific identification and biochemical cross-linking. Biomaterials, 2015, 53, 494-501.	5.7	26
60	The development of cell-adhesive hydrogel for 3D printing. International Journal of Bioprinting, 2016, 2, .	1.7	26
61	Cryopreservation of a small number of human sperm using enzymatically fabricated, hollow hyaluronan microcapsules handled by conventional ICSI procedures. Journal of Assisted Reproduction and Genetics, 2016, 33, 501-511.	1.2	25
62	Fabrication of single and bundled filament-like tissues using biodegradable hyaluronic acid-based hollow hydrogel fibers. International Journal of Biological Macromolecules, 2017, 104, 204-212.	3.6	25
63	Use of Anionic Polysaccharides in the Development of 3D Bioprinting Technology. Applied Sciences (Switzerland), 2019, 9, 2596.	1.3	25
64	Alginate/Aminopropyl-Silicate/Alginate Membrane Immunoisolatability and Insulin Secretion of Encapsulated Islets. Biotechnology Progress, 2002, 18, 401-403.	1.3	25
65	Engineering tissues with a perfusable vessel-like network using endothelialized alginate hydrogel fiber and spheroid-enclosing microcapsules. Heliyon, 2016, 2, e00067.	1.4	24
66	Gelatin/Hyaluronic Acid Content in Hydrogels Obtained through Blue Light-Induced Gelation Affects Hydrogel Properties and Adipose Stem Cell Behaviors. Biomolecules, 2019, 9, 342.	1.8	24
67	Development of a silica monolith microbioreactor entrapping highly activated lipase and an experiment toward integration with chromatographic separation of chiral esters. Journal of Separation Science, 2007, 30, 3077-3084.	1.3	23
68	Transesterification by lipase entrapped in electrospun poly(vinyl alcohol) fibers and its application to a flow-through reactor. Journal of Bioscience and Bioengineering, 2008, 105, 687-689.	1.1	23
69	Permeability of alginate/solâ€“gel synthesized aminopropyl-silicate/alginate membrane templated by calcium-alginate gel. Journal of Membrane Science, 2002, 205, 183-189.	4.1	22
70	Development of electrospun poly(vinyl alcohol) fibers immobilizing lipase highly activated by alkyl-silicate for flow-through reactors. Journal of Membrane Science, 2008, 325, 454-459.	4.1	22
71	Multicellular tumor spheroid formation in duplex microcapsules for analysis of chemosensitivity. Cancer Science, 2012, 103, 549-554.	1.7	22
72	Adipose tissue engineering using adipose-derived stem cells enclosed within an injectable carboxymethylcellulose-based hydrogel. Journal of Tissue Engineering and Regenerative Medicine, 2013, 7, 884-892.	1.3	22

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73	Reinforcement of porous alginate scaffolds by incorporating electrospun fibres. Biomedical Materials (Bristol), 2008, 3, 034102.	1.7	21
74	Aminopropyl-silicate membrane for microcapsule-shaped bioartificial organs: control of molecular permeability. Journal of Membrane Science, 2002, 202, 73-80.	4.1	20
75	Transition of mechanical property of porous alginate scaffold with cells during culture period. Journal of Bioscience and Bioengineering, 2005, 100, 127-129.	1.1	20
76	Development of alginateâ€“agarose subsieve-size capsules for subsequent modification with a polyelectrolyte complex membrane. Biochemical Engineering Journal, 2006, 30, 76-81.	1.8	20
77	InÂvitro formation of vascular-like networks using hydrogels. Journal of Bioscience and Bioengineering, 2016, 122, 519-527.	1.1	20
78	Biofabrication offers future hope for tackling various obstacles and challenges in tissue engineering and regenerative medicine: A Perspective. International Journal of Bioprinting, 2018, 5, 153.	1.7	20
79	Extrusion-Based Bioprinting through Glucose-Mediated Enzymatic Hydrogelation. International Journal of Bioprinting, 2019, 6, 250.	1.7	20
80	Laccase-mediated degradation and reduction of toxicity of the postharvest fungicide imazalil. Process Biochemistry, 2007, 42, 459-461.	1.8	19
81	Novel Technique for Fabricating Double-Layered Tubular Constructs Consisting of Two Vascular Cell Types in Collagen Gels Used as Templates for Three-Dimensional Tissues. Journal of Bioscience and Bioengineering, 2007, 104, 435-438.	1.1	19
82	Small Agarose Microcapsules with Cell-Enclosing Hollow Core for Cell Therapy: Transplantation of Ifosfamide-Activating Cells to the Mice with Preestablished Subcutaneous Tumor. Cell Transplantation, 2009, 18, 933-939.	1.2	19
83	Application of a lipase-immobilized silica monolith bioreactor to the production of fatty acid methyl esters. Journal of Molecular Catalysis B: Enzymatic, 2009, 57, 194-197.	1.8	18
84	Competing two enzymatic reactions realizing oneâ€step preparation of cellâ€enclosing duplex microcapsules. Biotechnology Progress, 2013, 29, 1528-1534.	1.3	18
85	Identification of Hydrogen Peroxide-Secreting Cells by Cytocompatible Coating with a Hydrogel Membrane. Analytical Chemistry, 2014, 86, 11592-11598.	3.2	18
86	Cytocompatible Enzymatic Hydrogelation Mediated by Glucose and Cysteine Residues. ACS Macro Letters, 2017, 6, 485-488.	2.3	18
87	Behavior of enclosed sol- and gel-alginates in vivo. Biochemical Engineering Journal, 2004, 22, 19-24.	1.8	17
88	Preparation of cell-enclosing microcapsules through photopolymerization of methacrylated alginate solution triggered by irradiation with visible light. Journal of Bioscience and Bioengineering, 2010, 109, 618-621.	1.1	17
89	Naphthalimideâ€“coumarin conjugate: ratiometric fluorescent receptor for self-calibrating quantification of cyanide anions in cells. RSC Advances, 2017, 7, 32304-32309.	1.7	17
90	MIN6 cells-enclosing aminopropyl-silicate membrane templated by alginate gels differences in guluronic acid content. International Journal of Pharmaceutics, 2004, 270, 65-73.	2.6	16

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91	Agaroseâ€“gelatin conjugate membrane enhances proliferation of adherent cells enclosed in hollow-core microcapsules. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 937-944.	1.9	16
92	On-demand serum-degradable amylopectin-based in situ gellable hydrogel. Journal of Materials Chemistry, 2012, 22, 1944-1949.	6.7	16
93	Wrapping tissues with a pre-established cage-like layer composed of living cells. Biomaterials, 2012, 33, 6721-6727.	5.7	16
94	Horseradish peroxidase-mediated encapsulation of mammalian cells in hydrogel particles by dropping. Journal of Microencapsulation, 2014, 31, 100-104.	1.2	16
95	Modification of porous aminopropyl-silicate microcapsule membrane by electrically-bonded external anionic polymers. Journal of Biomaterials Science, Polymer Edition, 2003, 14, 643-652.	1.9	15
96	Higher Viscous Solution Induces Smaller Droplets for Cell-Enclosing Capsules in a Co-flowing Stream. Biotechnology Progress, 2008, 21, 994-997.	1.3	15
97	Usefulness of flow focusing technology for producing subsieve-size cell enclosing capsules: Application for agarose capsules production. Biochemical Engineering Journal, 2006, 30, 218-221.	1.8	14
98	Feasibility of carboxymethylcellulose with phenol moieties as a material for mammalian cell-enclosing subsieve-size capsules. Cellulose, 2008, 15, 723-729.	2.4	14
99	Polyacrylonitrile-based electrospun nanofibers carrying gold nanoparticles in situ formed by photochemical assembly. Journal of Materials Science, 2014, 49, 4595-4600.	1.7	14
100	Visible Light-Curable Chitosan Ink for Extrusion-Based and Vat Polymerization-Based 3D Bioprintings. Polymers, 2021, 13, 1382.	2.0	14
101	Electrospun PVA fibrous mats immobilizing lipase entrapped in alkylsilicate cages: Application to continuous production of fatty acid butyl ester. Journal of Molecular Catalysis B: Enzymatic, 2010, 63, 57-61.	1.8	13
102	Rapidly serumâ€degradable hydrogel templating fabrication of spherical tissues and curved tubular structures. Biotechnology and Bioengineering, 2012, 109, 2911-2919.	1.7	13
103	Horseradish peroxidase-catalyzed hydrogelation consuming enzyme-produced hydrogen peroxide in the presence of reducing sugars. Soft Matter, 2019, 15, 2163-2169.	1.2	13
104	Newly Developed Aminopropylâ€Silicate Immunoisolation Membrane for a Microcapsuleâ€Shaped Bioartificial Pancreas. Annals of the New York Academy of Sciences, 2001, 944, 277-283.	1.8	12
105	Heat treatment of electrospun silicate fiber substrates enhances cellular adhesion and proliferation. Journal of Bioscience and Bioengineering, 2010, 109, 304-306.	1.1	12
106	Enhanced catalytic activity of lipase in situ encapsulated in electrospun polystyrene fibers by subsequent water supply. Catalysis Communications, 2010, 11, 576-580.	1.6	12
107	Development of Porous Alginate-Based Scaffolds Covalently Cross-Linked through a Peroxidase-Catalyzed Reaction. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 2407-2416.	1.9	12
108	Enhanced productivity of electrospun polyvinyl alcohol nanofibrous mats using aqueous N,N-dimethylformamide solution and their application to lipase-immobilizing membrane-shaped catalysts. Journal of Bioscience and Bioengineering, 2012, 114, 204-208.	1.1	12

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109	Electrochemical recycling of gold nanofibrous membrane as an enzyme immobilizing carrier. Chemical Engineering Journal, 2015, 280, 558-563.	6.6	12
110	Inkjet micropatterning through horseradish peroxidase-mediated hydrogelation for controlled cell immobilization and microtissue fabrication. Biofabrication, 2020, 12, 011001.	3.7	12
111	Propagation of human iPS cells in alginate-based microcapsules prepared using reactions catalyzed by horseradish peroxidase and catalase. Artificial Cells, Nanomedicine and Biotechnology, 2016, 44, 1406-1409.	1.9	11
112	Gelatin-Based Electrospun Fibers Insolubilized by Horseradish Peroxidase-Catalyzed Cross-Linking for Biomedical Applications. ACS Omega, 2020, 5, 21254-21259.	1.6	11
113	Modulation of Cell-Cycle Progression by Hydrogen Peroxide-Mediated Cross-Linking and Degradation of Cell-Adhesive Hydrogels. Cells, 2022, 11, 881.	1.8	11
114	Hepatocytes exhibit constant metabolic activity on carboxymethylcellulose-based hydrogel with high phenolic hydroxy group content. Biochemical Engineering Journal, 2010, 51, 147-152.	1.8	10
115	Inkjetting Plus Peroxidaseâ€Mediated Hydrogelation Produces Cellâ€Laden, Cellâ€Sized Particles with Suitable Characters for Individual Applications. Macromolecular Bioscience, 2017, 17, 1600416.	2.1	10
116	Development of phenol-grafted polyglucuronic acid and its application to extrusion-based bioprinting inks. Carbohydrate Polymers, 2022, 277, 118820.	5.1	10
117	Expression of a liver-specific function by a hepatoblastoma cell line cocultured with three-dimensional endothelialized tubes in collagen gels. Journal of Bioscience and Bioengineering, 2007, 103, 200-202.	1.1	9
118	Development of Subsieve-Size Capsules and Application to Cell Therapy. Advances in Experimental Medicine and Biology, 2010, 670, 22-30.	0.8	9
119	Versatility of hydrogelation by dual-enzymatic reactions with oxidases and peroxidase. Biochemical Engineering Journal, 2018, 131, 1-8.	1.8	9
120	Crossâ€Linking Building Blocks Using a â€œBoronate Bridgeâ€•to Build Functional Hybrid Materials. ChemNanoMat, 2019, 5, 141-151.	1.5	9
121	Influence of Hydrogen Peroxide-Mediated Cross-Linking and Degradation on Cell-Adhesive Gelatin Hydrogels. ACS Applied Bio Materials, 2021, 4, 4184-4190.	2.3	9
122	Cancer stem cell markerâ€expressing cellâ€rich spheroid fabrication from <scp>PANC</scp>â€1 cells using alginate microcapsules with spherical cavities templated by gelatin microparticles. Biotechnology Progress, 2015, 31, 1071-1076.	1.3	8
123	One-Step FRESH Bioprinting of Low-Viscosity Silk Fibroin Inks. ACS Biomaterials Science and Engineering, 2022, 8, 2589-2597.	2.6	8
124	Enhanced Angiogenesis in bFGF-Containing Scaffold Promoted Viability of Enclosed Hepatocytes and Maintained Hepatospecific Glycogen Storage Capacity. Journal of Chemical Engineering of Japan, 2005, 38, 913-917.	0.3	7
125	Anchoring PEG-oleate to cell membranes stimulates reactive oxygen species production. Colloids and Surfaces B: Biointerfaces, 2016, 147, 336-342.	2.5	7
126	Controlling the Diameters of Silica Nanofibers Obtained by Solâ€“Gel/Electrospinning Methods. Journal of Chemical Engineering of Japan, 2012, 45, 436-440.	0.3	7

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127	Freeform 3D Bioprinting Involving Ink Gelation by Cascade Reaction of Oxidase and Peroxidase: A Feasibility Study Using Hyaluronic Acid-Based Ink. Biomolecules, 2021, 11, 1908.	1.8	7
128	Tuning Myogenesis by Controlling Gelatin Hydrogel Properties through Hydrogen Peroxide-Mediated Cross-Linking and Degradation. Gels, 2022, 8, 387.	2.1	7
129	Effect of Diglucosamine on the Entrapment of Protein into Liposomes. Journal of Liposome Research, 2006, 16, 103-112.	1.5	6
130	Controlling apatite microparticles formation by calcining electrospun solâ€“gel derived ultrafine silica fibers. Journal of Sol-Gel Science and Technology, 2012, 61, 374-380.	1.1	6
131	Controlling thermo-reversibility of gelatin gels through a peroxidase-catalyzed reaction under mild conditions for mammalian cells. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 1147-56.	1.9	6
132	Gelatin nanofiber mats with Lipofectamine/plasmid DNA complexes for in vitro genome editing. Colloids and Surfaces B: Biointerfaces, 2022, 216, 112561.	2.5	6
133	Electrospun polystyrene fiber-templating ultrafine gold hollow fiber production. Gold Bulletin, 2013, 46, 97-101.	1.1	5
134	Fabrication of Ultrafine Carbon Fibers Possessing a Nanoporous Structure from Electrospun Polyvinyl Alcohol Fibers Containing Silica Nanoparticles. Journal of Nanomaterials, 2014, 2014, 1-6.	1.5	5
135	An electrospun ultrafine fibrous silica catalyst incorporating an alkyl-silica coating containing lipase for reactions in organic solvents. Journal of Molecular Catalysis B: Enzymatic, 2012, 83, 120-124.	1.8	4
136	Bone Regeneration of Tibial Defects in Rats with Enzymatic Hydrogelation of Gelatin Derivative and Recombinant Human Platelet-Derived Growth Factor-BB Complex. International Journal of Oral and Maxillofacial Implants, 2013, 28, 1377-1385.	0.6	4
137	Designing Fusion Proteins with Carbohydrate-Binding Modules Having Affinity to Enzymatically Gellable Carboxymethylcellulose Derivative Hydrogel. Journal of Chemical Engineering of Japan, 2014, 47, 835-840.	0.3	2
138	Characteristics of Duplex Microcapsules Prepared from an Alginate-Derivative Polymer via Horseradish Peroxidase- and Catalase-Catalyzed Reactions. Journal of Chemical Engineering of Japan, 2015, 48, 588-591.	0.3	2
139	Bioseparation Engineering. Control of Transport Characteristic of Membrane by Multi-layering of Polyelectrolyte Complex Toward Microcapsule-shaped Bioartificial Pancreas.. Kagaku Kogaku Ronbunshu, 2001, 27, 165-168.	0.1	2
140	Automated Microhand System for Measuring Cell Stiffness By Using Two Plate End-Effectors. IEEE Robotics and Automation Letters, 2022, 7, 2385-2390.	3.3	2
141	A Bioâ€synthetic Hybrid Hydrogel Formed under Physiological Conditions Consisting of Mucin and a Synthetic Polymer Carrying Boronic Acid. Macromolecular Bioscience, 2022, 22, e2200055.	2.1	2
142	Cell stiffness measurement using two-fingered micro-hand equipped with plate-shaped end effector. , 2014, , .		1
143	Nematode surface functionalization with hydrogel sheaths tailored in situ. Materials Today Bio, 2022, 15, 100328.	2.6	1
144	Permeability of a sol-gel synthesized aminopropyl-silicate-titanate hybrid membrane for the microcapsule-shaped bioartificial pancreas. Journal of Artificial Organs, 2002, 5, 0054-0059.	0.4	0

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145	Enzymatically-gelled amylopectin-based substrates enable on-demand harvesting cells with preserving cell-to-cell connection using saliva. Journal of Bioscience and Bioengineering, 2013, 115, 462-465.	1.1	0
146	Development of hydrogel coated end effector for stable cell manipulation by two-fingered micro-hand. , 2014, , .		0
147	Automated cell stiffness measurement with two-fingered microhand using micro force sensor. , 2014, , .		0
148	Automated construction system for cellular tissue based on laminar flow fibers. , 2016, , .		0
149	AFOB Special Issue on Stem Cells in Tissue Engineering and Regenerative Medicine. Biotechnology Journal, 2017, 12, 1700683.	1.8	0
150	Fabrication of 3D tissues using enzymatic reactions through production of hydrogel microcapsules and microfibers. , 2017, , .		0
151	Effects of Lipid Composition on Entrapment of Proteins into Phosphatidylglycerol-Containing Liposomes. Kagaku Kogaku Ronbunshu, 2006, 32, 514-517.	0.1	0
152	ã,¨ãƒ¬ã,¯ãƒˆãƒã,¹ãƒ”ãƒ‹ãƒ³ã,°æ³•ã«ã,ˆã,Šä½œè£½ã•ã,Œã,‹ãƒ•ã,¡ã,ãƒãƒ¼ã®é«˜å†ç”Ÿãƒã,ˆã³é•ä¼åå°Žå…¥ç”¨åŸºæ•ä¸–ã¦ã®æœè¨Ž. Se		
153	An assessment of ultrasound transmission gel as trial bioink by pneumatic extrusion-based 3D bio-printer. Transactions of the JSME (in Japanese), 2022, 88, 21-00151-21-00151.	0.1	0