Shinji Sakai

List of Publications by Citations

142 papers	3,648 citations	34 h-index	51 g-index
158 ext. papers	4,052 ext. citations	5.5 avg, IF	5.51 L-index

#	Paper	IF	Citations
142	An injectable, in situ enzymatically gellable, gelatin derivative for drug delivery and tissue engineering. *Biomaterials*, **2009**, 30, 3371-7	15.6	253
141	Synthesis and characterization of both ionically and enzymatically cross-linkable alginate. *Acta Biomaterialia*, **2007**, 3, 495-501	10.8	137
140	Synthesis of enzymatically-gellable carboxymethylcellulose for biomedical applications. *Journal of Bioscience and Bioengineering*, **2007**, 104, 30-3	3.3	126
139	Novel chitosan derivative soluble at neutral pH and in-situ gellable via peroxidase-catalyzed enzymatic reaction. *Journal of Materials Chemistry*, **2009**, 19, 230-235		106
138	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, 5067-5075	7.3	80
137	Synthesis and transport characterization of alginate/aminopropyl-silicate/alginate microcapsule: application to bioartificial pancreas. *Biomaterials*, **2001**, 22, 2827-34	15.6	79
136	Development of mammalian cell-enclosing subsieve-size agarose capsules (. *Biomaterials*, **2005**, 26, 4786-92	15.6	74
135	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, 2036-41	6.9	73
134	In vitro and in vivo evaluation of alginate/sol-gel synthesized aminopropyl-silicate/alginate membrane for bioartificial pancreas. *Biomaterials*, **2002**, 23, 4177-83	15.6	67
133	Enzymatically crosslinked carboxymethylcellulose-tyramine conjugate hydrogel: cellular adhesiveness and feasibility for cell sheet technology. *Acta Biomaterialia*, **2009**, 5, 554-9	10.8	65
132	Synthesis of an agarose-gelatin conjugate for use as a tissue engineering scaffold. *Journal of Bioscience and Bioengineering*, **2007**, 103, 22-6	3.3	57
131	Differentiation potential of human adipose stem cells bioprinted with hyaluronic acid/gelatin-based bioink through microextrusion and visible light-initiated crosslinking. *Biopolymers*, **2018**, 109, e23080	2.2	57
130	Enzymatically fabricated and degradable microcapsules for production of multicellular spheroids with well-defined diameters of less than 150 microm. *Biomaterials*, **2009**, 30, 5937-42	15.6	54
129	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	4.2	54
128	Production of cell-enclosing hollow-core agarose microcapsules via jetting in water-immiscible liquid paraffin and formation of embryoid body-like spherical tissues from mouse ES cells enclosed within these microcapsules. *Biotechnology and Bioengineering*, **2008**, 99, 235-43	4.9	54
127	Production of butyl-biodiesel using lipase physically-adsorbed onto electrospun polyacrylonitrile fibers. *Bioresource Technology*, **2010**, 101, 7344-9	11	53
126	Cell-enclosing gelatin-based microcapsule production for tissue engineering using a microfluidic flow-focusing system. *Biomicrofluidics*, **2011**, 5, 13402	3.2	52

125	Immobilization of Pseudomonas cepacia lipase onto electrospun polyacrylonitrile fibers through physical adsorption and application to transesterification in nonaqueous solvent. *Biotechnology Letters*, **2010**, 32, 1059-62	3	50
124	Peroxidase-catalyzed cell encapsulation in subsieve-size capsules of alginate with phenol moieties in water-immiscible fluid dissolving H2O2. *Biomacromolecules*, **2007**, 8, 2622-6	6.9	48
123	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	6.9	47
122	Development and Characterization of a Silica Monolith Immobilized Enzyme Micro-bioreactor. *Industrial & Engineering Chemistry Research*, **2005**, 44, 236-240	3.9	47
121	Control of cellular adhesiveness in an alginate-based hydrogel by varying peroxidase and H(2)O(2) concentrations during gelation. *Acta Biomaterialia*, **2010**, 6, 1446-52	10.8	42
120	Control of molecular weight cut-off for immunoisolation by multilayering glycol chitosan-alginate polyion complex on alginate-based microcapsules. *Journal of Microencapsulation*, **2000**, 17, 691-9	3.4	42
119	In situ simultaneous protein-polysaccharide bioconjugation and hydrogelation using horseradish peroxidase. *Biomacromolecules*, **2010**, 11, 1370-5	6.9	39
118	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	4.9	38
117	Biocompatibility of subsieve-size capsules versus conventional-size microcapsules. *Journal of Biomedical Materials Research - Part A*, **2006**, 78, 394-8	5.4	38
116	Both ionically and enzymatically crosslinkable alginate-tyramine conjugate as materials for cell encapsulation. *Journal of Biomedical Materials Research - Part A*, **2008**, 85, 345-51	5.4	37
115	Horseradish peroxidase-catalyzed formation of hydrogels from chitosan and poly(vinyl alcohol) derivatives both possessing phenolic hydroxyl groups. *Carbohydrate Polymers*, **2014**, 111, 404-9	10.3	36
114	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, 208-16	3.3	36
113	Prospective use of electrospun ultra-fine silicate fibers for bone tissue engineering. *Biotechnology Journal*, **2006**, 1, 958-62	5.6	36
112	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, 152-8	10.8	35
111	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	10.5	35
110	Highly efficient and low toxic skin penetrants composed of amino acid ionic liquids. *RSC Advances*, **2016**, 6, 87753-87755	3.7	35
109	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, 6616-23	10.8	34
108	Surface immobilization of poly(ethyleneimine) and plasmid DNA on electrospun poly(L-lactic acid) fibrous mats using a layer-by-layer approach for gene delivery. *Journal of Biomedical Materials Research - Part A*, **2009**, 88, 281-7	5.4	34

107	Calcium alginate microcapsules with spherical liquid cores templated by gelatin microparticles for mass production of multicellular spheroids. *Acta Biomaterialia*, **2010**, 6, 3132-7	10.8	34
106	Fabrication of artificial endothelialized tubes with predetermined three-dimensional configuration from flexible cell-enclosing alginate fibers. *Biotechnology Progress*, **2007**, 23, 182-6	2.8	34
105	Development of mammalian cell-enclosing calcium-alginate hydrogel fibers in a co-flowing stream. *Biotechnology Journal*, **2006**, 1, 1014-7	5.6	34
104	Horseradish Peroxidase Catalyzed Hydrogelation for Biomedical, Biopharmaceutical, and Biofabrication Applications. *Chemistry - an Asian Journal*, **2017**, 12, 3098-3109	4.5	33
103	Drop-On-Drop Multimaterial 3D Bioprinting Realized by Peroxidase-Mediated Cross-Linking. *Macromolecular Rapid Communications*, **2018**, 39, 1700534	4.8	31
102	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, 231-4	3.3	30
101	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, 353-9	3.3	29
100	Agarose-gelatin conjugate for adherent cell-enclosing capsules. *Biotechnology Letters*, **2007**, 29, 731-5	3	29
99	Preparation of mammalian cell-enclosing subsieve-sized capsules (. *Biotechnology and Bioengineering*, **2004**, 86, 168-73	4.9	29
98	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	6.6	28
97	Glucose-triggered co-enzymatic hydrogelation of aqueous polymer solutions. *RSC Advances*, **2012**, 2, 1502-1507	3.7	28
96	Phenolic hydroxy groups incorporated for the peroxidase-catalyzed gelation of a carboxymethylcellulose support: cellular adhesion and proliferation. *Macromolecular Bioscience*, **2009**, 9, 262-7	5.5	28
95	Subsieve-size agarose capsules enclosing ifosfamide-activating cells: a strategy toward chemotherapeutic targeting to tumors. *Molecular Cancer Therapeutics*, **2005**, 4, 1786-90	6.1	27
94	Proliferation and Insulin Secretion Function of Mouse Insulinoma Cells Encapsulated in Alginate/Sol-Gel Synthesized Aminopropyl-Silicate/Alginate Microcapsule. *Journal of Sol-Gel Science and Technology*, **2003**, 28, 267-272	2.3	26
93	Hematin is an alternative catalyst to horseradish peroxidase for in situ hydrogelation of polymers with phenolic hydroxyl groups in vivo. *Biomacromolecules*, **2010**, 11, 2179-83	6.9	25
92	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	7.9	24
91	Application of silicate electrospun nanofibers for cell culture. *Journal of Sol-Gel Science and Technology*, **2008**, 48, 350-355	2.3	24
90	Use of Anionic Polysaccharides in the Development of 3D Bioprinting Technology. *Applied Sciences (Switzerland)*, **2019**, 9, 2596	2.6	23

89	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, 687-9	3.3	23
88	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, 3077-84	3.4	23
87	Alginate/aminopropyl-silicate/alginate membrane immunoisolatability and insulin secretion of encapsulated islets. *Biotechnology Progress*, **2002**, 18, 401-3	2.8	23
86	Peroxidase-catalyzed microextrusion bioprinting of cell-laden hydrogel constructs in vaporized ppm-level hydrogen peroxide. *Biofabrication*, **2018**, 10, 045007	10.5	22
85	Enzymatically-gellable galactosylated chitosan: Hydrogel characteristics and hepatic cell behavior. *International Journal of Biological Macromolecules*, **2016**, 92, 892-899	7.9	21
84	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	9.6	21
83	The development of cell-adhesive hydrogel for 3D printing. *International Journal of Bioprinting*, **2016**, 2,	6.2	21
82	Cell-selective encapsulation in hydrogel sheaths via biospecific identification and biochemical cross-linking. *Biomaterials*, **2015**, 53, 494-501	15.6	20
81	Production of hyaluronic-acid-based cell-enclosing microparticles and microcapsules via enzymatic reaction using a microfluidic system. *Journal of Applied Polymer Science*, **2016**, 133, n/a-n/a	2.9	20
80	Adipose tissue engineering using adipose-derived stem cells enclosed within an injectable carboxymethylcellulose-based hydrogel. *Journal of Tissue Engineering and Regenerative Medicine*, **2013**, 7, 884-92	4.4	20
79	Reinforcement of porous alginate scaffolds by incorporating electrospun fibres. *Biomedical Materials (Bristol)*, **2008**, 3, 034102	3.5	20
78	Development of alginate–agarose subsieve-size capsules for subsequent modification with a polyelectrolyte complex membrane. *Biochemical Engineering Journal*, **2006**, 30, 76-81	4.2	20
77	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, 435-8	3.3	19
76	Transition of mechanical property of porous alginate scaffold with cells during culture period. *Journal of Bioscience and Bioengineering*, **2005**, 100, 127-9	3.3	19
75	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, 501-11	3.4	19
74	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	7.9	18
73	In vitro formation of vascular-like networks using hydrogels. *Journal of Bioscience and Bioengineering*, **2016**, 122, 519-527	3.3	18
72	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		17

71	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, 933-9	4	17
70	Permeability of alginate/sol–gel synthesized aminopropyl-silicate/alginate membrane templated by calcium-alginate gel. *Journal of Membrane Science*, **2002**, 205, 183-189	9.6	17
69	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	3.5	17
68	Cytocompatible Enzymatic Hydrogelation Mediated by Glucose and Cysteine Residues. *ACS Macro Letters*, **2017**, 6, 485-488	6.6	16
67	Multicellular tumor spheroid formation in duplex microcapsules for analysis of chemosensitivity. *Cancer Science*, **2012**, 103, 549-54	6.9	16
66	Preparation of cell-enclosing microcapsules through photopolymerization of methacrylated alginate solution triggered by irradiation with visible light. *Journal of Bioscience and Bioengineering*, **2010**, 109, 618-21	3.3	16
65	Agarose-gelatin conjugate membrane enhances proliferation of adherent cells enclosed in hollow-core microcapsules. *Journal of Biomaterials Science, Polymer Edition*, **2008**, 19, 937-44	3.5	16
64	Laccase-mediated degradation and reduction of toxicity of the postharvest fungicide imazalil. *Process Biochemistry*, **2007**, 42, 459-461	4.8	16
63	Behavior of enclosed sol- and gel-alginates in vivo. *Biochemical Engineering Journal*, **2004**, 22, 19-24	4.2	16
62	Aminopropyl-silicate membrane for microcapsule-shaped bioartificial organs: control of molecular permeability. *Journal of Membrane Science*, **2002**, 202, 73-80	9.6	16
61	Gelatin/Hyaluronic Acid Content in Hydrogels Obtained through Blue Light-Induced Gelation Affects Hydrogel Properties and Adipose Stem Cell Behaviors. *Biomolecules*, **2019**, 9,	5.9	15
60	Identification of hydrogen peroxide-secreting cells by cytocompatible coating with a hydrogel membrane. *Analytical Chemistry*, **2014**, 86, 11592-8	7.8	15
59	Naphthalimide–coumarin conjugate: ratiometric fluorescent receptor for self-calibrating quantification of cyanide anions in cells. *RSC Advances*, **2017**, 7, 32304-32309	3.7	15
58	Competing two enzymatic reactions realizing one-step preparation of cell-enclosing duplex microcapsules. *Biotechnology Progress*, **2013**, 29, 1528-34	2.8	15
57	Engineering tissues with a perfusable vessel-like network using endothelialized alginate hydrogel fiber and spheroid-enclosing microcapsules. *Heliyon*, **2016**, 2, e00067	3.6	15
56	Wrapping tissues with a pre-established cage-like layer composed of living cells. *Biomaterials*, **2012**, 33, 6721-7	15.6	14
55	Higher viscous solution induces smaller droplets for cell-enclosing capsules in a co-flowing stream. *Biotechnology Progress*, **2005**, 21, 994-7	2.8	14
54	Feasibility of carboxymethylcellulose with phenol moieties as a material for mammalian cell-enclosing subsieve-size capsules. *Cellulose*, **2008**, 15, 723-729	5.5	14

53	Usefulness of flow focusing technology for producing subsieve-size cell enclosing capsules: Application for agarose capsules production. *Biochemical Engineering Journal*, **2006**, 30, 218-221	4.2	14
52	On-demand serum-degradable amylopectin-based in situ gellable hydrogel. *Journal of Materials Chemistry*, **2012**, 22, 1944-1949		13
51	MIN6 cells-enclosing aminopropyl-silicate membrane templated by alginate gels differences in guluronic acid content. *International Journal of Pharmaceutics*, **2004**, 270, 65-73	6.5	13
50	Extrusion-Based Bioprinting through Glucose-Mediated Enzymatic Hydrogelation. *International Journal of Bioprinting*, **2020**, 6, 250	6.2	13
49	Horseradish peroxidase-mediated encapsulation of mammalian cells in hydrogel particles by dropping. *Journal of Microencapsulation*, **2014**, 31, 100-4	3.4	12
48	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		12
47	Modification of porous aminopropyl-silicate microcapsule membrane by electrically-bonded external anionic polymers. *Journal of Biomaterials Science, Polymer Edition*, **2003**, 14, 643-52	3.5	12
46	Silk fibroin nanofibers: a promising ink additive for extrusion three-dimensional bioprinting. *Materials Today Bio*, **2020**, 8, 100078	9.9	12
45	Polyacrylonitrile-based electrospun nanofibers carrying gold nanoparticles in situ formed by photochemical assembly. *Journal of Materials Science*, **2014**, 49, 4595-4600	4.3	11
44	Rapidly serum-degradable hydrogel templating fabrication of spherical tissues and curved tubular structures. *Biotechnology and Bioengineering*, **2012**, 109, 2911-9	4.9	11
43	Development of porous alginate-based scaffolds covalently cross-linked through a peroxidase-catalyzed reaction. *Journal of Biomaterials Science, Polymer Edition*, **2011**, 22, 2407-16	3.5	11
42	Newly developed aminopropyl-silicate immunoisolation membrane for a microcapsule-shaped bioartificial pancreas. *Annals of the New York Academy of Sciences*, **2001**, 944, 277-83	6.5	11
41	Electrochemical recycling of gold nanofibrous membrane as an enzyme immobilizing carrier. *Chemical Engineering Journal*, **2015**, 280, 558-563	14.7	10
40	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, 204-8	3.3	10
39	Enhanced catalytic activity of lipase in situ encapsulated in electrospun polystyrene fibers by subsequent water supply. *Catalysis Communications*, **2010**, 11, 576-580	3.2	10
38	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, 1406-9	6.1	9
37	Development of subsieve-size capsules and application to cell therapy. *Advances in Experimental Medicine and Biology*, **2010**, 670, 22-30	3.6	9
36	Heat treatment of electrospun silicate fiber substrates enhances cellular adhesion and proliferation. *Journal of Bioscience and Bioengineering*, **2010**, 109, 304-6	3.3	9

35	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, 200-2	3.3	9
34	Biofabrication offers future hope for tackling various obstacles and challenges in tissue engineering and regenerative medicine: A Perspective. *International Journal of Bioprinting*, **2019**, 5, 153	6.2	9
33	Inkjetting Plus Peroxidase-Mediated Hydrogelation Produces Cell-Laden, Cell-Sized Particles with Suitable Characters for Individual Applications. *Macromolecular Bioscience*, **2017**, 17, 1600416	5.5	8
32	Hepatocytes exhibit constant metabolic activity on carboxymethylcellulose-based hydrogel with high phenolic hydroxy group content. *Biochemical Engineering Journal*, **2010**, 51, 147-152	4.2	8
31	Collagen and nano-hydroxyapatite interactions in alginate-based microcapsule provide an appropriate osteogenic microenvironment for modular bone tissue formation. *Carbohydrate Polymers*, **2022**, 277, 118807	10.3	7
30	Horseradish peroxidase-catalyzed hydrogelation consuming enzyme-produced hydrogen peroxide in the presence of reducing sugars. *Soft Matter*, **2019**, 15, 2163-2169	3.6	6
29	Anchoring PEG-oleate to cell membranes stimulates reactive oxygen species production. *Colloids and Surfaces B: Biointerfaces*, **2016**, 147, 336-342	6	6
28	Effect of diglucosamine on the entrapment of protein into liposomes. *Journal of Liposome Research* , **2006**, 16, 103-12	6.1	6
27	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	0.8	6
26	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	3.5	6
25	Controlling the Diameters of Silica Nanofibers Obtained by Sol□el/Electrospinning Methods. *Journal of Chemical Engineering of Japan*, **2012**, 45, 436-440	0.8	6
24	Inkjet micropatterning through horseradish peroxidase-mediated hydrogelation for controlled cell immobilization and microtissue fabrication. *Biofabrication*, **2019**, 12, 011001	10.5	6
23	Versatility of hydrogelation by dual-enzymatic reactions with oxidases and peroxidase. *Biochemical Engineering Journal*, **2018**, 131, 1-8	4.2	6
22	Controlling apatite microparticles formation by calcining electrospun sol□el derived ultrafine silica fibers. *Journal of Sol-Gel Science and Technology*, **2012**, 61, 374-380	2.3	5
21	Cancer stem cell marker-expressing cell-rich spheroid fabrication from PANC-1 cells using alginate microcapsules with spherical cavities templated by gelatin microparticles. *Biotechnology Progress*, **2015**, 31, 1071-6	2.8	5
20	Gelatin-Based Electrospun Fibers Insolubilized by Horseradish Peroxidase-Catalyzed Cross-Linking for Biomedical Applications. *ACS Omega*, **2020**, 5, 21254-21259	3.9	5
19	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		4
18	Electrospun polystyrene fiber-templating ultrafine gold hollow fiber production. *Gold Bulletin*, **2013**, 46, 97-101	1.6	4

17	Development of phenol-grafted polyglucuronic acid and its application to extrusion-based bioprinting inks. *Carbohydrate Polymers*, **2022**, 277, 118820	10.3	4
16	Visible Light-Curable Chitosan Ink for Extrusion-Based and Vat Polymerization-Based 3D Bioprintings. *Polymers*, **2021**, 13,	4.5	4
15	Fabrication of Ultrafine Carbon Fibers Possessing a Nanoporous Structure from Electrospun Polyvinyl Alcohol Fibers Containing Silica Nanoparticles. *Journal of Nanomaterials*, **2014**, 2014, 1-6	3.2	3
14	Cross-Linking Building Blocks Using a Boronate Bridge to Build Functional Hybrid Materials. *ChemNanoMat*, **2019**, 5, 141-151	3.5	3
13	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	0.8	2
12	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	0.4	2
11	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	0.8	1
10	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, 1377-85	2.8	1
9	Influence of Hydrogen Peroxide-Mediated Cross-Linking and Degradation on Cell-Adhesive Gelatin Hydrogels.. *ACS Applied Bio Materials*, **2021**, 4, 4184-4190	4.1	1
8	Automated Microhand System for Measuring Cell Stiffness By Using Two Plate End-Effectors. *IEEE Robotics and Automation Letters*, **2022**, 7, 2385-2390	4.2	0
7	A bio-synthetic hybrid hydrogel formed under physiological conditions consisting of mucin and a synthetic polymer carrying boronic acid.. *Macromolecular Bioscience*, **2022**, e2200055	5.5	0
6	Gelatin nanofiber mats with Lipofectamine/plasmid DNA complexes for in vitro genome editing.. *Colloids and Surfaces B: Biointerfaces*, **2022**, 216, 112561	6	0
5	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, 462-5	3.3	
4	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	1.8	
3	Effects of Lipid Composition on Entrapment of Proteins into Phosphatidylglycerol-Containing Liposomes. *Kagaku Kogaku Ronbunshu*, **2006**, 32, 514-517	0.4	
2	??????????????????????????????????????. *Seni Kikai Gakkai Shi/Journal of the Textile Machinery Society of Japan*, **2008**, 61, 487-491		
1	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	0.2	