

Teruo Okano

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636
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51,687
ext. citations

7
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#	Paper	IF	Citations
614	Corneal reconstruction with tissue-engineered cell sheets composed of autologous oral mucosal epithelium. <i>New England Journal of Medicine</i> , 2004 , 351, 1187-96	59.2	1218
613	Comb-type grafted hydrogels with rapid deswelling response to temperature changes. <i>Nature</i> , 1995 , 374, 240-242	50.4	1094
612	Monolayered mesenchymal stem cells repair scarred myocardium after myocardial infarction. <i>Nature Medicine</i> , 2006 , 12, 459-65	50.5	1017
611	A novel recovery system for cultured cells using plasma-treated polystyrene dishes grafted with poly(N-isopropylacrylamide). <i>Journal of Biomedical Materials Research Part B</i> , 1993 , 27, 1243-51		816
610	Thermo-responsive polymeric surfaces; control of attachment and detachment of cultured cells. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1990 , 11, 571-576		787
609	Fabrication of pulsatile cardiac tissue grafts using a novel 3-dimensional cell sheet manipulation technique and temperature-responsive cell culture surfaces. <i>Circulation Research</i> , 2002 , 90, e40	15.7	760
608	Mechanism of cell detachment from temperature-modulated, hydrophilic-hydrophobic polymer surfaces. <i>Biomaterials</i> , 1995 , 16, 297-303	15.6	758
607	Diverse Applications of Nanomedicine. <i>ACS Nano</i> , 2017 , 11, 2313-2381	16.7	714
606	Polymeric micelles as new drug carriers. <i>Advanced Drug Delivery Reviews</i> , 1996 , 21, 107-116	18.5	593
605	Cell sheet engineering for myocardial tissue reconstruction. <i>Biomaterials</i> , 2003 , 24, 2309-16	15.6	576
604	Cell sheet engineering: recreating tissues without biodegradable scaffolds. <i>Biomaterials</i> , 2005 , 26, 6415-236	15.6	499
603	Temperature dependence of swelling of crosslinked poly(N,N'-alkyl substituted acrylamides) in water. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1990 , 28, 923-936	2.6	490
602	Pulsatile drug release control using hydrogels. <i>Advanced Drug Delivery Reviews</i> , 2002 , 54, 53-77	18.5	469
601	Ultrathin poly(N-isopropylacrylamide) grafted layer on polystyrene surfaces for cell adhesion/detachment control. <i>Langmuir</i> , 2004 , 20, 5506-11	4	463
600	Thermo-sensitive polymers as on-off switches for drug release. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1987 , 8, 481-485		462
599	Functional bioengineered corneal epithelial sheet grafts from corneal stem cells expanded ex vivo on a temperature-responsive cell culture surface. <i>Transplantation</i> , 2004 , 77, 379-85	1.8	449
598	Engineering functional two- and three-dimensional liver systems in vivo using hepatic tissue sheets. <i>Nature Medicine</i> , 2007 , 13, 880-5	50.5	433

597	Decrease in culture temperature releases monolayer endothelial cell sheets together with deposited fibronectin matrix from temperature-responsive culture surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 1999 , 45, 355-62		412
596	Reconstruction of functional tissues with cell sheet engineering. <i>Biomaterials</i> , 2007 , 28, 5033-43	15.6	403
595	Polysurgery of cell sheet grafts overcomes diffusion limits to produce thick, vascularized myocardial tissues. <i>FASEB Journal</i> , 2006 , 20, 708-10	0.9	392
594	Thermo-responsive culture dishes allow the intact harvest of multilayered keratinocyte sheets without dispase by reducing temperature. <i>Tissue Engineering</i> , 2001 , 7, 473-80		385
593	Temperature-Responsive Chromatography Using Poly(N-isopropylacrylamide)-Modified Silica. <i>Analytical Chemistry</i> , 1996 , 68, 100-5	7.8	373
592	Intelligent thermoresponsive polymeric stationary phases for aqueous chromatography of biological compounds. <i>Progress in Polymer Science</i> , 2002 , 27, 1165-1193	29.6	363
591	Prevention of esophageal stricture after endoscopic submucosal dissection using tissue-engineered cell sheets. <i>Gastroenterology</i> , 2012 , 143, 582-588.e2	13.3	354
590	Cell sheet engineering. <i>Materials Today</i> , 2004 , 7, 42-47	21.8	344
589	Feasibility, safety, and therapeutic efficacy of human induced pluripotent stem cell-derived cardiomyocyte sheets in a porcine ischemic cardiomyopathy model. <i>Circulation</i> , 2012 , 126, S29-37	16.7	343
588	Inner core segment design for drug delivery control of thermo-responsive polymeric micelles. <i>Journal of Controlled Release</i> , 2000 , 65, 93-103	11.7	333
587	In vitro fabrication of functional three-dimensional tissues with perfusable blood vessels. <i>Nature Communications</i> , 2013 , 4, 1399	17.4	331
586	Preparation and characterization of the micelle-forming polymeric drug indomethacin-incorporated poly(ethylene oxide)-poly(beta-benzyl L-aspartate) block copolymer micelles. <i>Journal of Pharmaceutical Sciences</i> , 1996 , 85, 85-90	3.9	319
585	Molecular design of biodegradable polymeric micelles for temperature-responsive drug release. <i>Journal of Controlled Release</i> , 2006 , 115, 46-56	11.7	313
584	Endothelial cell coculture within tissue-engineered cardiomyocyte sheets enhances neovascularization and improves cardiac function of ischemic hearts. <i>Circulation</i> , 2008 , 118, S145-52	16.7	311
583	Dynamic Contact Angle Measurement of Temperature-Responsive Surface Properties for Poly(N-isopropylacrylamide) Grafted Surfaces. <i>Macromolecules</i> , 1994 , 27, 6163-6166	5.5	308
582	Rapid Deswelling Response of Poly(N-isopropylacrylamide) Hydrogels by the Formation of Water Release Channels Using Poly(ethylene oxide) Graft Chains. <i>Macromolecules</i> , 1998 , 31, 6099-6105	5.5	305
581	Periodontal regeneration with multi-layered periodontal ligament-derived cell sheets in a canine model. <i>Biomaterials</i> , 2009 , 30, 2716-23	15.6	289
580	Fabrication of functional three-dimensional tissues by stacking cell sheets in vitro. <i>Nature Protocols</i> , 2012 , 7, 850-8	18.8	286

579	Thermally responsive polymer-grafted surfaces facilitate patterned cell seeding and co-culture. <i>Biomaterials</i> , 2002 , 23, 561-7	15.6	286
578	Repair of impaired myocardium by means of implantation of engineered autologous myoblast sheets. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2005 , 130, 1333-41	1.5	281
577	Design of prevascularized three-dimensional cell-dense tissues using a cell sheet stacking manipulation technology. <i>Biomaterials</i> , 2010 , 31, 1646-54	15.6	257
576	Preparation of thermoresponsive polymer brush surfaces and their interaction with cells. <i>Biomaterials</i> , 2008 , 29, 2073-81	15.6	256
575	Tissue engineered myoblast sheets improved cardiac function sufficiently to discontinue LVAS in a patient with DCM: report of a case. <i>Surgery Today</i> , 2012 , 42, 181-4	3	255
574	Novel cardiac precursor-like cells from human menstrual blood-derived mesenchymal cells. <i>Stem Cells</i> , 2008 , 26, 1695-704	5.8	250
573	Preparation and characterization of thermally responsive block copolymer micelles comprising poly(N-isopropylacrylamide-b-DL-lactide). <i>Journal of Controlled Release</i> , 1998 , 55, 87-98	11.7	242
572	Application of periodontal ligament cell sheet for periodontal regeneration: a pilot study in beagle dogs. <i>Journal of Periodontal Research</i> , 2005 , 40, 245-51	4.3	241
571	Human periodontal ligament cell sheets can regenerate periodontal ligament tissue in an athymic rat model. <i>Tissue Engineering</i> , 2005 , 11, 469-78		240
570	In vitro engineering of vascularized tissue surrogates. <i>Scientific Reports</i> , 2013 , 3, 1316	4.9	223
569	Comparison of different tissue-derived stem cell sheets for periodontal regeneration in a canine 1-wall defect model. <i>Biomaterials</i> , 2011 , 32, 5819-25	15.6	222
568	Nanostructured designs of biomedical materials: applications of cell sheet engineering to functional regenerative tissues and organs. <i>Journal of Controlled Release</i> , 2005 , 101, 69-84	11.7	222
567	Two-dimensional manipulation of cardiac myocyte sheets utilizing temperature-responsive culture dishes augments the pulsatile amplitude. <i>Tissue Engineering</i> , 2001 , 7, 141-51		222
566	Temperature-responsive cell culture surfaces for regenerative medicine with cell sheet engineering. <i>Progress in Polymer Science</i> , 2007 , 32, 1123-1133	29.6	217
565	Cardiac cell sheet transplantation improves damaged heart function via superior cell survival in comparison with dissociated cell injection. <i>Tissue Engineering - Part A</i> , 2011 , 17, 2973-80	3.9	215
564	Creation of designed shape cell sheets that are noninvasively harvested and moved onto another surface. <i>Biomacromolecules</i> , 2000 , 1, 377-81	6.9	215
563	Gene expression control by temperature with thermo-responsive polymeric gene carriers. <i>Journal of Controlled Release</i> , 2000 , 69, 127-37	11.7	211
562	Temperature-responsive liquid chromatography. 2. Effects of hydrophobic groups in N-isopropylacrylamide copolymer-modified silica. <i>Analytical Chemistry</i> , 1997 , 69, 823-30	7.8	210

561	Poly(N-isopropylacrylamide)-based thermoresponsive surfaces provide new types of biomedical applications. <i>Biomaterials</i> , 2018 , 153, 27-48	15.6	204
560	Rapid cell sheet detachment from poly(N-isopropylacrylamide)-grafted porous cell culture membranes. <i>Journal of Biomedical Materials Research Part B</i> , 2000 , 50, 82-9		202
559	Temperature-responsive intelligent interfaces for biomolecular separation and cell sheet engineering. <i>Journal of the Royal Society Interface</i> , 2009 , 6 Suppl 3, S293-309	4.1	198
558	Cell sheet engineering for heart tissue repair. <i>Advanced Drug Delivery Reviews</i> , 2008 , 60, 277-85	18.5	198
557	Novel approach for achieving double-layered cell sheets co-culture: overlaying endothelial cell sheets onto monolayer hepatocytes utilizing temperature-responsive culture dishes. <i>Journal of Biomedical Materials Research Part B</i> , 2002 , 62, 464-70		198
556	Pre-vascularization of in vitro three-dimensional tissues created by cell sheet engineering. <i>Biomaterials</i> , 2010 , 31, 3903-9	15.6	194
555	Temperature-responsive bioconjugates. 2. Molecular design for temperature-modulated bioseparations. <i>Bioconjugate Chemistry</i> , 1993 , 4, 341-6	6.3	192
554	Long-term survival and growth of pulsatile myocardial tissue grafts engineered by the layering of cardiomyocyte sheets. <i>Tissue Engineering</i> , 2006 , 12, 499-507		190
553	Temperature-responsive cell culture surfaces enable "on-off" affinity control between cell integrins and RGDS ligands. <i>Biomacromolecules</i> , 2004 , 5, 505-10	6.9	189
552	Human iPS cell-engineered cardiac tissue sheets with cardiomyocytes and vascular cells for cardiac regeneration. <i>Scientific Reports</i> , 2014 , 4, 6716	4.9	188
551	Thermo-responsive swelling and drug release switching of interpenetrating polymer networks composed of poly(acrylamide-co-butyl methacrylate) and poly (acrylic acid). <i>Journal of Controlled Release</i> , 1991 , 16, 215-227	11.7	186
550	Effect of hydrophilic and hydrophobic microdomains on mode of interaction between block polymer and blood platelets. <i>Journal of Biomedical Materials Research Part B</i> , 1981 , 15, 393-402		185
549	Controlled formation of heterotypic hepatic micro-organoids in anisotropic hydrogel microfibers for long-term preservation of liver-specific functions. <i>Biomaterials</i> , 2012 , 33, 8304-15	15.6	180
548	Functional human corneal endothelial cell sheets harvested from temperature-responsive culture surfaces. <i>FASEB Journal</i> , 2006 , 20, 392-4	0.9	180
547	Cell delivery in regenerative medicine: the cell sheet engineering approach. <i>Journal of Controlled Release</i> , 2006 , 116, 193-203	11.7	179
546	Bioengineered cardiac cell sheet grafts have intrinsic angiogenic potential. <i>Biochemical and Biophysical Research Communications</i> , 2006 , 341, 573-82	3.4	177
545	Transplantation of cardiac progenitor cells ameliorates cardiac dysfunction after myocardial infarction in mice. <i>Journal of Clinical Investigation</i> , 2009 , 119, 2204-17	15.9	176
544	Cell sheet approach for tissue engineering and regenerative medicine. <i>Journal of Controlled Release</i> , 2014 , 190, 228-39	11.7	172

543	Tissue cardiomyoplasty using bioengineered contractile cardiomyocyte sheets to repair damaged myocardium: their integration with recipient myocardium. <i>Transplantation</i> , 2005 , 80, 1586-95	1.8	172
542	The use of patterned dual thermoresponsive surfaces for the collective recovery as co-cultured cell sheets. <i>Biomaterials</i> , 2005 , 26, 1885-93	15.6	172
541	Human limbal epithelium contains side population cells expressing the ATP-binding cassette transporter ABCG2. <i>FEBS Letters</i> , 2004 , 565, 6-10	3.8	168
540	Electrically communicating three-dimensional cardiac tissue mimic fabricated by layered cultured cardiomyocyte sheets. <i>Journal of Biomedical Materials Research Part B</i> , 2002 , 60, 110-7		166
539	Graft Architectural Effects on Thermoresponsive Wettability Changes of Poly(N-isopropylacrylamide)-Modified Surfaces. <i>Langmuir</i> , 1998 , 14, 4657-4662	4	163
538	Copolymerization of 2-carboxyisopropylacrylamide with N-isopropylacrylamide accelerates cell detachment from grafted surfaces by reducing temperature. <i>Biomacromolecules</i> , 2003 , 4, 344-9	6.9	162
537	Cellular control of tissue architectures using a three-dimensional tissue fabrication technique. <i>Biomaterials</i> , 2007 , 28, 4939-46	15.6	160
536	Electrical coupling of cardiomyocyte sheets occurs rapidly via functional gap junction formation. <i>Biomaterials</i> , 2006 , 27, 4765-74	15.6	160
535	Polymer terminal group effects on properties of thermoresponsive polymeric micelles with controlled outer-shell chain lengths. <i>Biomacromolecules</i> , 2005 , 6, 2320-7	6.9	159
534	Controlled chain length and graft density of thermoresponsive polymer brushes for optimizing cell sheet harvest. <i>Biomacromolecules</i> , 2010 , 11, 1991-9	6.9	153
533	Enhanced survival of transplanted human induced pluripotent stem cell-derived cardiomyocytes by the combination of cell sheets with the pedicled omental flap technique in a porcine heart. <i>Circulation</i> , 2013 , 128, S87-94	16.7	151
532	Effects of graft densities and chain lengths on separation of bioactive compounds by nanolayered thermoresponsive polymer brush surfaces. <i>Langmuir</i> , 2008 , 24, 511-7	4	150
531	Pulsatile cardiac tissue grafts using a novel three-dimensional cell sheet manipulation technique functionally integrates with the host heart, in vivo. <i>Circulation Research</i> , 2006 , 98, 705-12	15.7	149
530	Temperature-responsive polymeric micelles for optimizing drug targeting to solid tumors. <i>Journal of Controlled Release</i> , 2014 , 193, 2-8	11.7	144
529	Validation of human periodontal ligament-derived cells as a reliable source for cytotherapeutic use. <i>Journal of Clinical Periodontology</i> , 2010 , 37, 1088-99	7.7	143
528	Longer preservation of cardiac performance by sheet-shaped myoblast implantation in dilated cardiomyopathic hamsters. <i>Cardiovascular Research</i> , 2006 , 69, 466-75	9.9	143
527	Transfection efficiency increases by incorporating hydrophobic monomer units into polymeric gene carriers. <i>Journal of Controlled Release</i> , 2000 , 68, 1-8	11.7	142
526	"On-off" thermocontrol of solute transport. I. Temperature dependence of swelling of N-isopropylacrylamide networks modified with hydrophobic components in water. <i>Pharmaceutical Research</i> , 1991 , 8, 531-7	4.5	142

525	Temperature-responsive chromatographic separation of amino acid phenylthiohydantions using aqueous media as the mobile phase. <i>Analytical Chemistry</i> , 2000 , 72, 5961-6	7.8	139
524	Effects of Cross-Linked Structure on Temperature-Responsive Hydrophobic Interaction of Poly(N-isopropylacrylamide) Hydrogel-Modified Surfaces with Steroids. <i>Analytical Chemistry</i> , 1999 , 71, 1125-1130	7.8	136
523	Cell sheet engineering for regenerative medicine: current challenges and strategies. <i>Biotechnology Journal</i> , 2014 , 9, 904-14	5.6	135
522	Accelerated cell sheet recovery by co-grafting of PEG with PIPAAm onto porous cell culture membranes. <i>Biomaterials</i> , 2003 , 24, 1223-32	15.6	134
521	Temperature-responsive bioconjugates. 1. Synthesis of temperature-responsive oligomers with reactive end groups and their coupling to biomolecules. <i>Bioconjugate Chemistry</i> , 1993 , 4, 42-6	6.3	133
520	Control of adriamycin cytotoxic activity using thermally responsive polymeric micelles composed of poly(N-isopropylacrylamide-co-N,N-dimethylacrylamide)-b-poly(d,l-lactide). <i>Colloids and Surfaces B: Biointerfaces</i> , 1999 , 16, 195-205	6	132
519	Two-dimensional manipulation of confluent cultured vascular endothelial cells using temperature-responsive poly(N-isopropylacrylamide)-grafted surfaces. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1998 , 9, 1331-48	3.5	129
518	Novel bifunctional polymer with reactivity and temperature sensitivity. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2000 , 11, 101-10	3.5	129
517	Glucose-responsive gel from phenylborate polymer and poly(vinyl alcohol): prompt response at physiological pH through the interaction of borate with amino group in the gel. <i>Pharmaceutical Research</i> , 1997 , 14, 289-93	4.5	128
516	Temperature-induced intracellular uptake of thermoresponsive polymeric micelles. <i>Biomacromolecules</i> , 2009 , 10, 1331-6	6.9	127
515	Interfacial property modulation of thermoresponsive polymer brush surfaces and their interaction with biomolecules. <i>Langmuir</i> , 2007 , 23, 9409-15	4	127
514	Grafted skeletal myoblast sheets attenuate myocardial remodeling in pacing-induced canine heart failure model. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2006 , 132, 918-24	1.5	126
513	Temperature-responsive culture dishes allow nonenzymatic harvest of differentiated Madin-Darby canine kidney (MDCK) cell sheets. <i>Journal of Biomedical Materials Research Part B</i> , 2000 , 51, 216-23		123
512	Tissue factor triggers procoagulation in transplanted mesenchymal stem cells leading to thromboembolism. <i>Biochemical and Biophysical Research Communications</i> , 2013 , 431, 203-9	3.4	122
511	A thermoresponsive, microtextured substrate for cell sheet engineering with defined structural organization. <i>Biomaterials</i> , 2008 , 29, 2565-72	15.6	122
510	Creation of human cardiac cell sheets using pluripotent stem cells. <i>Biochemical and Biophysical Research Communications</i> , 2012 , 425, 321-7	3.4	121
509	Aqueous chromatography utilizing pH-/temperature-responsive polymer stationary phases to separate ionic bioactive compounds. <i>Analytical Chemistry</i> , 2001 , 73, 2027-33	7.8	120
508	Pluripotent stem cell-engineered cell sheets reassembled with defined cardiovascular populations ameliorate reduction in infarct heart function through cardiomyocyte-mediated neovascularization. <i>Stem Cells</i> , 2012 , 30, 1196-205	5.8	119

507	Preserved liver-specific functions of hepatocytes in 3D co-culture with endothelial cell sheets. <i>Biomaterials</i> , 2012 , 33, 1406-13	15.6	118
506	Signal transduction and cytoskeletal reorganization are required for cell detachment from cell culture surfaces grafted with a temperature-responsive polymer. <i>Journal of Biomedical Materials Research Part B</i> , 1999 , 44, 44-52		118
505	On-chip cell migration assay using microfluidic channels. <i>Biomaterials</i> , 2007 , 28, 4017-22	15.6	116
504	Micropatterned thermoresponsive polymer brush surfaces for fabricating cell sheets with well-controlled orientational structures. <i>Biomacromolecules</i> , 2011 , 12, 1414-8	6.9	115
503	Preparation of thermoresponsive cationic copolymer brush surfaces and application of the surface to separation of biomolecules. <i>Biomacromolecules</i> , 2008 , 9, 1340-7	6.9	113
502	Cartilage repair in transplanted scaffold-free chondrocyte sheets using a minipig model. <i>Biomaterials</i> , 2012 , 33, 3846-51	15.6	112
501	Ocular surface reconstruction using autologous rabbit oral mucosal epithelial sheets fabricated ex vivo on a temperature-responsive culture surface. <i>Investigative Ophthalmology and Visual Science</i> , 2005 , 46, 1632-9		112
500	Composite cell sheets: a further step toward safe and effective myocardial regeneration by cardiac progenitors derived from embryonic stem cells. <i>Circulation</i> , 2010 , 122, S118-23	16.7	111
499	Allogeneic Transplantation of an Adipose-Derived Stem Cell Sheet Combined With Artificial Skin Accelerates Wound Healing in a Rat Wound Model of Type 2 Diabetes and Obesity. <i>Diabetes</i> , 2015 , 64, 2723-34	0.9	110
498	Periodontal ligament cell sheet promotes periodontal regeneration in athymic rats. <i>Journal of Clinical Periodontology</i> , 2008 , 35, 1066-72	7.7	110
497	N-Cadherin is expressed by putative stem/progenitor cells and melanocytes in the human limbal epithelial stem cell niche. <i>Stem Cells</i> , 2007 , 25, 289-96	5.8	110
496	Structural characterization of bioengineered human corneal endothelial cell sheets fabricated on temperature-responsive culture dishes. <i>Biomaterials</i> , 2006 , 27, 607-14	15.6	110
495	Introducing Reactive Carboxyl Side Chains Retains Phase Transition Temperature Sensitivity in N-Isopropylacrylamide Copolymer Gels. <i>Macromolecules</i> , 2000 , 33, 8312-8316	5.5	110
494	Bioengineering of a functional sheet of islet cells for the treatment of diabetes mellitus. <i>Biomaterials</i> , 2009 , 30, 5943-9	15.6	108
493	Release of adsorbed fibronectin from temperature-responsive culture surfaces requires cellular activity. <i>Biomaterials</i> , 2000 , 21, 981-6	15.6	107
492	Cell sheet engineering and its application for periodontal regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015 , 9, 343-56	4.4	106
491	Limbal epithelial side-population cells have stem cell-like properties, including quiescent state. <i>Stem Cells</i> , 2006 , 24, 86-94	5.8	104
490	Impaired myocardium regeneration with skeletal cell sheets--a preclinical trial for tissue-engineered regeneration therapy. <i>Transplantation</i> , 2010 , 90, 364-72	1.8	101

489	Pulsatile myocardial tubes fabricated with cell sheet engineering. <i>Circulation</i> , 2006 , 114, 187-93	16.7	101
488	Process design for efficient and controlled drug incorporation into polymeric micelle carrier systems. <i>Journal of Controlled Release</i> , 2002 , 78, 155-63	11.7	101
487	Engineered small diameter vascular grafts by combining cell sheet engineering and electrospinning technology. <i>Acta Biomaterialia</i> , 2015 , 16, 14-22	10.8	100
486	Drug release from electric current sensitive polymers. <i>Journal of Controlled Release</i> , 1991 , 17, 149-156	11.7	100
485	Surface-modulated skin layers of thermal responsive hydrogels as on-off switches: II. Drug permeation. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1992 , 3, 243-52	3.5	98
484	The use of anisotropic cell sheets to control orientation during the self-organization of 3D muscle tissue. <i>Biomaterials</i> , 2013 , 34, 7372-80	15.6	97
483	Characterization of ultra-thin temperature-responsive polymer layer and its polymer thickness dependency on cell attachment/detachment properties. <i>Macromolecular Bioscience</i> , 2010 , 10, 1117-29	5.5	97
482	Bio-functionalized thermoresponsive interfaces facilitating cell adhesion and proliferation. <i>Biomaterials</i> , 2006 , 27, 5069-78	15.6	96
481	Creation of myocardial tubes using cardiomyocyte sheets and an in vitro cell sheet-wrapping device. <i>Biomaterials</i> , 2007 , 28, 3508-16	15.6	95
480	PLGA artificial nerve conduits with dental pulp cells promote facial nerve regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2011 , 5, 823-30	4.4	92
479	Microfluidic devices for size-dependent separation of liver cells. <i>Biomedical Microdevices</i> , 2007 , 9, 637-45	7	92
478	Temperature-responsive polymeric carriers incorporating hydrophobic monomers for effective transfection in small doses. <i>Journal of Controlled Release</i> , 2004 , 95, 343-55	11.7	92
477	Two-dimensional cell sheet manipulation of heterotypically co-cultured lung cells utilizing temperature-responsive culture dishes results in long-term maintenance of differentiated epithelial cell functions. <i>Biomaterials</i> , 2002 , 23, 1121-30	15.6	92
476	Temperature-responsive glass coverslips with an ultrathin poly(N-isopropylacrylamide) layer. <i>Acta Biomaterialia</i> , 2009 , 5, 470-6	10.8	91
475	Cell sheet-based myocardial tissue engineering: new hope for damaged heart rescue. <i>Current Pharmaceutical Design</i> , 2009 , 15, 2807-14	3.3	91
474	Aqueous chromatography utilizing hydrophobicity-modified anionic temperature-responsive hydrogel for stationary phases. <i>Journal of Chromatography A</i> , 2002 , 958, 109-19	4.5	91
473	Heterotypic cell interactions on a dually patterned surface. <i>Biochemical and Biophysical Research Communications</i> , 2006 , 348, 937-44	3.4	90
472	Cell sheet engineering and other novel cell-based approaches to periodontal regeneration. <i>Periodontology 2000</i> , 2009 , 51, 220-38	12.9	89

471	Fabrication of transferable micropatterned-co-cultured cell sheets with microcontact printing. <i>Biomaterials</i> , 2009 , 30, 5427-32	15.6	88
470	Control of cell adhesion and detachment using temperature and thermoresponsive copolymer grafted culture surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 2004 , 69, 70-8		88
469	Cross-linked thermoresponsive anionic polymer-grafted surfaces to separate bioactive basic peptides. <i>Analytical Chemistry</i> , 2003 , 75, 3244-9	7.8	88
468	Novel thermally reversible hydrogel as detachable cell culture substrate. <i>Journal of Biomedical Materials Research Part B</i> , 1998 , 40, 631-9		87
467	Effect of molecular architecture of poly(N-isopropylacrylamide)-trypsin conjugates on their solution and enzymatic properties. <i>Bioconjugate Chemistry</i> , 1996 , 7, 96-101	6.3	86
466	Assessment of cell sheets derived from human periodontal ligament cells: a pre-clinical study. <i>Cell and Tissue Research</i> , 2010 , 341, 397-404	4.2	85
465	Novel patterned cell coculture utilizing thermally responsive grafted polymer surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 2001 , 55, 137-40		85
464	Molecular design for missile drug: Synthesis of adriamycin conjugated with immunoglobulin G using poly(ethylene glycol)-block-poly(aspartic acid) as intermediate carrier. <i>Die Makromolekulare Chemie</i> , 1989 , 190, 2041-2054		85
463	Creation of mouse embryonic stem cell-derived cardiac cell sheets. <i>Biomaterials</i> , 2011 , 32, 7355-62	15.6	84
462	Transplantable urothelial cell sheets harvested noninvasively from temperature-responsive culture surfaces by reducing temperature. <i>Tissue Engineering</i> , 2003 , 9, 1005-12		84
461	Two-dimensional manipulation of differentiated Madin-Darby canine kidney (MDCK) cell sheets: the noninvasive harvest from temperature-responsive culture dishes and transfer to other surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 2001 , 54, 37-46		84
460	Periodontal regeneration with autologous periodontal ligament-derived cell sheets - A safety and efficacy study in ten patients. <i>Regenerative Therapy</i> , 2018 , 9, 38-44	3.7	84
459	Construction of three-dimensional vascularized cardiac tissue with cell sheet engineering. <i>Journal of Controlled Release</i> , 2015 , 205, 83-8	11.7	83
458	Cell micropatterning using photopolymerization with a liquid crystal device commercial projector. <i>Biomaterials</i> , 2004 , 25, 2047-53	15.6	83
457	Cell sheet tissue engineering: Cell sheet preparation, harvesting/manipulation, and transplantation. <i>Journal of Biomedical Materials Research - Part A</i> , 2019 , 107, 955-967	5.4	81
456	Temperature-Responsive Polymer Modified Surface for Cell Sheet Engineering. <i>Polymers</i> , 2012 , 4, 1478-1498	4.9	81
455	Patterned biofunctional designs of thermoresponsive surfaces for spatiotemporally controlled cell adhesion, growth, and thermally induced detachment. <i>Biomaterials</i> , 2007 , 28, 3632-43	15.6	81
454	Articular cartilage regeneration using cell sheet technology. <i>Anatomical Record</i> , 2014 , 297, 36-43	2.1	80

453	Tissue engineered epithelial cell sheets for the creation of a bioartificial trachea. <i>Tissue Engineering</i> , 2006 , 12, 1275-83		80
452	Newly designed hydrogel with both sensitive thermoresponse and biodegradability. <i>Journal of Polymer Science Part A</i> , 2003 , 41, 779-787	2.5	80
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450	Thermal modulated interaction of aqueous steroids using polymer-grafted capillaries. <i>Langmuir</i> , 2006 , 22, 425-30	4	79
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3 Cell-Based Therapy for Cardiovascular Injury **2013**, 207-224

2 Cell Sheet Technologies **2016**, 97-113

1 Cell Sorting, Culture, Preconditioning, and Modulation/Cell Aggregates: Sheets. *Reference Series in Biomedical Engineering*, **2021**, 415-448