Soft lithography in biology and biochemistry

DOI: 10.1146/annurev.bioeng.3.1.335
Annual Review of Biomedical Engineering, 2001, 3, 335-73.

#	Paper	IF	Citations
2254	Optofluidic waveguides for reconfigurable photonic systems. **2011**, 19, 8602		
2253	Optofluidic waveguides for reconfigurable photonic systems. **2011**, 19, 8602		
2252	Microfabrication techniques in materiomics. 51-66		
2251	Physical Properties of Laser-Produced Dense Plasma in High-Pressure Argon Gases. **1985**, 24, 856-861		5
2250	Growth of thin Ag2S films on silver layers: in situ ellipsometric and conductivity studies. **1994**, 6, 6237-6244		6
2249	Nanocrystalline Soft-Magnetic Fe-Zr-B-Cu Composites by Consolidation of Amorphous Powders Coated with Oxide Film through Sol-Gel Process. **1996**, 35, L828-L831		8
2248	Soft lithography in biology and biochemistry. *Annual Review of Biomedical Engineering*, **2001**, 3, 335-73	12	2115
2247	Single molecule research on surfaces: from analytics to construction and back. **2001**, 82, 3-24		5
2246	A microfluidic device for separating motile sperm from nonmotile sperm via inter-streamline crossings.		1
2245	The electric slide: dielectrophoresis for high precision cell patterning.		
2244	Integration of living cells into microsystems technology.		
2243	Microcontact printing on human tissue for retinal cell transplantation. **2002**, 120, 1714-8		46
2242	Biotechnology apprenticeship for secondary-level students: teaching advanced cell culture techniques for research. **2002**, 1, 26-42		10
2241	Writing with DNA and protein using a nanopipet for controlled delivery. **2002**, 124, 8810-1		168
2240	Microfabricated 384-lane capillary array electrophoresis bioanalyzer for ultrahigh-throughput genetic analysis. **2002**, 74, 5076-83		249
2239	Analytic chemistry. Everyone's a (future) chemist. **2002**, 296, 1818-9		46
2238	Decal transfer microlithography: a new soft-lithographic patterning method. **2002**, 124, 13583-96		147

2237	High-pressure microfluidic control in lab-on-a-chip devices using mobile polymer monoliths. **2002**, 74, 4913-8		91
2236	Cardiomyocyte cultures with controlled macroscopic anisotropy: a model for functional electrophysiological studies of cardiac muscle. **2002**, 91, e45-54		212
2235	Physics and applications of microfluidics in biology. *Annual Review of Biomedical Engineering*, **2002**, 4, 261-86	12	1286
2234	Soft Lithography and Microfluidics. **2002**, 571-595		5
2233	Fabricating Microarrays of Functional Proteins Using Affinity Contact Printing. **2002**, 114, 2426-2429		16
2232	Fabricating microarrays of functional proteins using affinity contact printing. **2002**, 41, 2320-3		128
2231	Dithio-Phospholipids for Biospecific Immobilization of Proteins on Gold Surfaces. **2002**, 3, 119-125		16
2230	Functional materials for microscale genomic and proteomic analyses. **2002**, 13, 87-94		23
2229	Neutrophil chemotaxis in linear and complex gradients of interleukin-8 formed in a microfabricated device. **2002**, 20, 826-30		750
2228	Voltage-addressable on/off microvalves for high-pressure microchip separations. **2002**, 979, 147-54		50
2227	Engineering Microtools in Polymers to Study Cell Biology. **2003**, 3, 475-480		26
2226	Control of Mammalian Cell and Bacteria Adhesion on Substrates Micropatterned with Poly(ethylene glycol) Hydrogels. **2003**, 5, 11-19		69
2225	Microfluidic Multicompartment Device for Neuroscience Research. **2003**, 19, 1551-1556		241
2224	Star Trek replicators and diatom nanotechnology. **2003**, 21, 325-8		98
2223	Microfluidic devices fabricated in poly(dimethylsiloxane) for biological studies. **2003**, 24, 3563-76		1321
2222	Cross-linked coatings for electrophoretic separations in poly(dimethylsiloxane) microchannels. **2003**, 24, 3679-88		73
2221	The Artificial Synapse Chip: a flexible retinal interface based on directed retinal cell growth and neurotransmitter stimulation. **2003**, 27, 975-85		57
2220	Macromolecules at surfaces: Research challenges and opportunities from tribology to biology. **2003**, 41, 2755-2793		144

2219	The 'right' size in nanobiotechnology. **2003**, 21, 1161-5		667
2218	The tissue engineeting puzzle: a molecular perspective. *Annual Review of Biomedical Engineering*, **2003**, 5, 441-63	12	119
2217	Isolation of motile spermatozoa from semen samples using microfluidics. **2003**, 7, 75-81		131
2216	Tandem isotachophoresis-zone electrophoresis via base-mediated destacking for increased detection sensitivity in microfluidic systems. **2003**, 75, 3059-65		38
2215	Fabrication of patterned multicomponent protein gradients and gradient arrays using microfluidic depletion. **2003**, 75, 5775-82		69
2214	A Tentative Route toward Nanofluidics: Directed Diffusion of Small Molecules Embedded within Adsorbed Polymers. **2003**, 36, 5443-5446		5
2213	Photoinduced Polar Transition of Substrate Surfaces by Photodegradable Cationic Adsorbate Monolayers. **2003**, 19, 8769-8776		5
2212	Multicomponent submicron features of biomolecules created by voltage controlled deposition from a nanopipet. **2003**, 125, 9834-9		109
2211	Electrochemically Derived Gradients of the Extracellular Matrix Protein Fibronectin on Gold. **2003**, 19, 7528-7536		104
2210	Molding of three-dimensional microstructures of gels. **2003**, 125, 12988-9		127
2209	Surface Engineering with Poly(ethylene glycol) Photolithography to Create High-Density Cell Arrays on Glass. **2003**, 19, 9855-9862		230
2208	Building Three-Dimensional Surface Biological Assemblies on the Nanometer Scale. **2003**, 3, 1517-1520		47
2207	Electrochemical desorption of self-assembled monolayers noninvasively releases patterned cells from geometrical confinements. **2003**, 125, 2366-7		224
2206	Orientation modulation of a synthetic polypeptide in self-assembled monolayers: a TOF-SIMS study. **2003**, 125, 8911-5		37
2205	Maleic anhydride copolymers--a versatile platform for molecular biosurface engineering. **2003**, 4, 1072-9		208
2204	Microfabrication techniques for chemical/biosensors. **2003**, 91, 839-863		135
2203	Regulation of vascular smooth muscle cells by micropatterning. **2003**, 307, 883-90		156
2202	Microfabricated teflon membranes for low-noise recordings of ion channels in planar lipid bilayers. *Biophysical Journal*, **2003**, 85, 2684-95	2.9	195

2201	AFM Study on Protein Immobilization on Charged Surfaces at the Nanoscale: Toward the Fabrication of Three-Dimensional Protein Nanostructures. **2003**, 19, 10557-10562	75
2200	. **2003**, 26, 233-241	149
2199	A microfluidic model for single-cell capillary obstruction by Plasmodium falciparum-infected erythrocytes. **2003**, 100, 14618-22	338
2198	Thermodynamically Reversible Addressing of a Stimuli Responsive Fusion Protein onto a Patterned Surface Template **2003**, 19, 1641-1653	28
2197	Microstructures of poly (ethylene glycol) by molding and dewetting. **2003**, 83, 1668-1670	34
2196	Cells lying on a bed of microneedles: an approach to isolate mechanical force. **2003**, 100, 1484-9	1558
2195	Analytical model for predicting mechanotransduction effects in engineered cardiac tissue. **2003**, 9, 283-9	18
2194	Biochips beyond DNA: technologies and applications. **2003**, 9, 1-149	42
2193	Shrinking the biologic world--nanobiotechnologies for toxicology. **2003**, 74, 235-44	22
2192	Influence of topology on bacterial social interaction. **2003**, 100, 13910-5	143
2191	Emerging Advances in Microelectronics, Optoelectronics and Bioelectronics. **2003**, 1-145	
2190	Nanotexturing gold surfaces with dendrimers for selective cell adhesion.	
2189	Shape-memory polymers for microelectromechanical systems. **2004**, 13, 472-483	128
2188	Conformation and dynamics of single DNA molecules in parallel-plate slit microchannels. **2004**, 70, 060901	135
2187	Fabrication of Ordered Sub-Micron Topographies on Large-Area Poly(Urethane Urea) by Two-Stage Replication Molding. **2004**, 820, 288	1
2186	A photochemical method for patterning the immobilization of ligands and cells to self-assembled monolayers. **2004**, 20, 7223-31	179
2185	Neural prostheses for vision: designing a functional interface with retinal neurons. **2004**, 26, 21-34	34
2184	Retinal pigment epithelial cell behavior is modulated by alterations in focal cell-substrate contacts. **2004**, 45, 4210-6	29

2183	Directed retinal nerve cell growth for use in a retinal prosthesis interface. **2004**, 45, 4132-7	31
2182	Controlling cell attachment selectively onto biological polymer-colloid templates using polymer-on-polymer stamping. **2004**, 20, 7215-22	57
2181	Bacterial persistence as a phenotypic switch. **2004**, 305, 1622-5	1953
2180	Patterning protein molecules on poly(ethylene glycol) coated Si(111). **2004**, 25, 3503-9	18
2179	Micropatterning of endothelial cells by guided stimulation with angiogenic factors. **2004**, 19, 1401-7	14
2178	Probing chemical reactions on the nanometer scale: Inverted chemical force microscopy of reactive self-assembled monolayers. **2004**, 570, 57-66	11
2177	Strategies for engineering the adhesive microenvironment. **2004**, 9, 405-17	37
2176	Production of monodispersed water-in-oil emulsions using polymer microchannels. **2004**, 81, 705-711	31
2175	Microfluidics realizes potential. **2004**, 7, 48-52	3
2174	Influence of interfaces on thin polymer film behaviour. **2004**, 49, 713-786	91
2173	A simple soft lithographic route to fabrication of poly(ethylene glycol) microstructures for protein and cell patterning. **2004**, 25, 557-63	252
2172	Immobilization of oriented protein molecules on poly(ethylene glycol)-coated Si(111). **2004**, 4, 1965-76	48
2171	Micropatterned agarose gels for stamping arrays of proteins and gradients of proteins. **2004**, 4, 2366-76	119
2170	Biodegradable Microfluidics. **2004**, 16, 2007-2012	145
2169	Micropatterned surfaces prepared using a liquid crystal projector-modified photopolymerization device and microfluidics. **2004**, 69, 391-7	22
2168	Layer-by-layer microfluidics for biomimetic three-dimensional structures. **2004**, 25, 1355-64	164
2167	Inverted chemical force microscopy: following interfacial reactions on the nanometer scale. **2004**, 40, 939-947	7
2166	A novel generic platform for chemical patterning of surfaces. **2004**, 76, 55-69	49

2165	Microfluidique et applications biologiques : enjeux et tendances. **2004**, 5, 565-575	11
2164	Fabrication of 2D-protein arrays using biotinylated thiols: results from fluorescence microscopy and atomic force microscopy. **2004**, 6, 4358-4362	20
2163	Pushing the limits of artificial vision. **2004**, 23, 21-23	2
2162	Using microfluidic channel networks to generate gradients for studying cell migration. **2005**, 294, 347-57	11
2161	High-resolution patterning and transfer of thin PDMS films: fabrication of hybrid self-sealing 3D microfluidic systems.	6
2160	Large area two-dimensional B cell arrays for sensing and cell-sorting applications. **2004**, 5, 822-7	52
2159	Micropatterns of spores displaying heterologous proteins. **2004**, 126, 10512-3	37
2158	Construction of cell-resistant surfaces by immobilization of poly(ethylene glycol) on gold. **2004**, 20, 4302-5	32
2157	A microfluidic system for large DNA molecule arrays. **2004**, 76, 5293-301	155
2156	Tailoring the surface properties of poly(dimethylsiloxane) microfluidic devices. **2004**, 20, 5569-74	83
2155	Designing a hepatocellular microenvironment with protein microarraying and poly(ethylene glycol) photolithography. **2004**, 20, 2999-3005	97
2154	DNA attachment chemistry at the flexible silicone elastomer surface: toward disposable microarrays. **2004**, 20, 11100-7	30
2153	Controlled Assembly of Magnetic Nanoparticles from Magnetotactic Bacteria Using Microelectromagnets Arrays. **2004**, 4, 995-998	160
2152	Compatibility of mammalian cells on surfaces of poly(dimethylsiloxane). **2004**, 20, 11684-91	283
2151	Light-Patterned and Recognition-Directed Adsorption of Nanoparticles at a Silicon Wafer Substrate. **2004**, 4, 573-575	19
2150	Photogenerated polyelectrolyte bilayers from an aqueous-processible photoresist for multicomponent protein patterning. **2004**, 126, 9170-1	113
2149	Rapid prototyping of thermoset polyester microfluidic devices. **2004**, 76, 4697-704	81
2148	Measurement of enzyme kinetics using microscale steady-state kinetic analysis. **2004**, 20, 6374-81	37

2147	A soft lithographic approach to fabricate patterned microfluidic channels. **2004**, 76, 3675-81		133
2146	Injection and flow control system for microchannels. *Lab on A Chip*, **2004**, 4, 351-6	7.2	55
2145	Spontaneous assembly of organic thiocyanates on gold sufaces. Alternative precursors for gold thiolate assemblies. **2004**, 126, 13172-3		100
2144	Cell Shape Normalization of Normal and Haploinsufficient NF1-Melanocytes by Micro-Structured Substrate Interaction. **2004**, 185-197		
2143	Quantitative microfluidic separation of DNA in self-assembled magnetic matrixes. **2004**, 76, 3770-6		96
2142	Palladium as a substrate for self-assembled monolayers used in biotechnology. **2004**, 76, 6116-21		39
2141	Controlling cell adhesion on human tissue by soft lithography. **2004**, 20, 4155-61		37
2140	Cell Migration. **2004**,		2
2139	Mechanotransduction at cell-matrix and cell-cell contacts. *Annual Review of Biomedical Engineering*, **2004**, 6, 275-302	12	437
2138	Photolithographic Technique for Direct Photochemical Modification and Chemical Micropatterning of Surfaces. **2004**, 20, 1812-1818		63
2137	Analysis of passive mixing behavior in a poly(dimethylsiloxane) microfluidic channel using confocal fluorescence and Raman microscopy. **2004**, 58, 1172-9		30
2136	Biomaterials: where we have been and where we are going. *Annual Review of Biomedical Engineering*, **2004**, 6, 41-75	12	1188
2135	Cell lysis on a microfluidic CD (compact disc). *Lab on A Chip*, **2004**, 4, 516-22	7.2	114
2134	Biomacromolecules electrostatic self-assembly on 3-dimensional tissue engineering scaffold. **2004**, 5, 1933-9		66
2133	UNCONVENTIONAL NANOFABRICATION. **2004**, 34, 339-372		310
2132	Moving fluid with bacterial carpets. *Biophysical Journal*, **2004**, 86, 1863-70	2.9	297
2131	Controlled three-dimensional immobilization of biomolecules on chemically patterned surfaces. **2004**, 112, 97-107		54
2130	Patterning Surface-bound Microtubules through Reversible DNA Hybridization. **2004**, 4, 2127-2132		21

2129	Multiple beam laser cell micropatterning system. **2004**,	5
2128	New assay for multiple single molecule enzyme kinetics. **2005**, 5699, 482	
2127	Microcontact printing trapping air: A versatile tool for protein microarray fabrication. **2005**, 6036, 219	
2126	Toward the Emergence of Nanoneurosurgery: Part IIProgress in Nanoscience, Nanotechnology, and the Comprehension of Events in the Mesoscale Realm. **2005**, 57, 606-634	52
2125	Fabrication Technology. **2005**, 1-67	5
2124	Bioactive Patterns at the 100-nm Scale Produced Using Multifunctional Physisorbed Monolayers. **2005**, 30, 202-206	33
2123	Rapid prototyping of functional microfabricated devices by soft lithography. **2005**, 76-119	3
2122	Dynamic osmotic loading of chondrocytes using a novel microfluidic device. **2005**, 38, 1273-81	35
2121	Disposable polydimethylsiloxane/silicon hybrid chips for protein detection. **2005**, 21, 574-80	29
2120	Micropatterning of biomolecules on glass surfaces modified with various functional groups using photoactivatable biotin. **2005**, 347, 60-6	45
2119	Micropatterning of polystyrene nanoparticles and its bioapplications. **2005**, 46, 255-60	17
2118	Use of plasma polymerisation process for fabrication of bio-MEMS for micro-fluidic devices. **2005**, 252, 1710-1715	23
2117	Dynamic heterodimer-functionalized surfaces for endothelial cell adhesion. **2005**, 26, 4757-66	18
2116	Engineered spatial patterns of FGF-2 immobilized on fibrin direct cell organization. **2005**, 26, 6762-70	134
2115	Selective nucleation and growth of metal-organic open framework thin films on patterned COOH/CF3-terminated self-assembled monolayers on Au(111). **2005**, 127, 13744-5	490
2114	The extracellular matrix guides the orientation of the cell division axis. **2005**, 7, 947-53	642
2113	A microfluidic culture platform for CNS axonal injury, regeneration and transport. **2005**, 2, 599-605	850
2112	Molecular dynamics imaging in micropatterned living cells. **2005**, 2, 739-41	71

2111	Combining microscience and neurobiology. **2005**, 15, 560-7	49
2110	Engineering micropatterned surfaces for the coculture of hepatocytes and Kupffer cells. **2005**, 75, 242-8	34
2109	Fabrication of Stable Metallic Patterns Embedded in Poly(dimethylsiloxane) and Model Applications in Non-Planar Electronic and Lab-on-a-Chip Device Patterning. **2005**, 15, 557-566	82
2108	A Non-Covalent Approach for Depositing Spatially Selective Materials on Surfaces. **2005**, 15, 1364-1375	29
2107	The Patterning and Alignment of Muscle Cells Using the Selective Adhesion of Poly(oligoethylene glycol methyl ether methacrylate)-based ABA Block Copolymers. **2005**, 17, 2324-2329	35
2106	Microfluidics for Processing Surfaces and Miniaturizing Biological Assays. **2005**, 17, 2911-2933	208
2105	Recent advances in microcontact printing. **2005**, 381, 591-600	234
2104	Exploring the molecular basis for mechanosensation, signal transduction, and cytoskeletal remodeling. **2005**, 1, 281-93	28
2103	Direct patterning of mammalian cells onto porous tissue engineering substrates using agarose stamps. **2005**, 26, 7636-41	123
2102	Conception, [illegible]laboration et caract[illegible]risation de mat[illegible]riaux bioactifs. **2005**, 26, 229-237	8
2101	Characterization of polydimethylsiloxane (PDMS) properties for biomedical micro/nanosystems. **2005**, 7, 281-93	830
2100	Nanofabrication with biomolecules. **2005**, 8, 30-39	163
2099	Bulk and micropatterned conjugation of extracellular matrix proteins to characterized polyacrylamide substrates for cell mechanotransduction assays. **2005**, 39, 847-51	113
2098	. **2005**,	23
2097	Mechanical deformation of neutrophils into narrow channels induces pseudopod projection and changes in biomechanical properties. **2005**, 98, 1930-9	89
2096	Integrated bioassays in microfluidic devices: botulinum toxin assays. **2005**, 10, 788-94	20
2095	Molecular engineering of surfaces using self-assembled monolayers. **2005**, 88, 17-48	95
2094	Integrated optical measurement of microfluid velocity. **2005**, 15, 1810-1816	10

2093	Polymer cell culture substrates with combined nanotopographical patterns and micropatterned chemical domains. **2005**, 23, 3011	34
2092	Micro- and nanoscale surface patterning techniques for localising biomolecules and cells: the essence of nanobiotechnology. **2005**, 150-180	2
2091	Controlled cell deposition techniques. **2005**, 465-492	
2090	Manipulation and sorting of magnetic particles by a magnetic force microscope on a microfluidic magnetic trap platform. **2005**, 86, 243901	47
2089	Adjustable-force soft-landing contact lithography for precision patterning of biomolecules.	
2088	References. **2005**, 567-654	
2087	On the thickness uniformity of micropatterns of hyaluronic acid in a soft lithographic molding method. **2005**, 97, 114701	5
2086	Micropatterning of cardiomyocytes using adhesion-resistant polymeric microstructures.	
2085	Directing cell migration with asymmetric micropatterns. **2005**, 102, 975-8	389
2084	Mobility of protozoa through narrow channels. **2005**, 71, 4628-37	21
2083	Space- and time-resolved spectrophotometry in microsystems. **2005**, 102, 10035-9	15
2082	Microengineering the Environment of Mammalian Cells in Culture. **2005**, 30, 194-201	95
2081	Formation of complex polymeric microstructures through physical self-organization and capillary dynamics. **2005**, 15, 400-407	7
2080	A micro flow-meter for closed-loop management of biological samples. **2005**, 2005, 5062-5	1
2079	Modifying the Properties of Collagen Scaffolds with Microfluidics. **2005**, 897, 1	
2078	Microoxen: microorganisms to move microscale loads. **2005**, 102, 11963-7	281
2077	Testing models of hadron production with strange hadrons in the intermediatepTregion using the STAR detector. **2005**, 31, S399-S405	3
2076	Simple methods for the direct assembly, functionalization, and patterning of acid-terminated monolayers on Si111. **2005**, 21, 10537-44	63

2075	Szilard's dream. **2005**, 2, 648-9		5
2074	IC/microfluidic hybrid system for biology: review.		
2073	Use of self assembled magnetic beads for on-chip protein digestion. *Lab on A Chip*, **2005**, 5, 935-42	7.2	106
2072	Acoustic micromachining of three-dimensional surfaces for biological applications. *Lab on A Chip*, **2005**, 5, 179-83	7.2	16
2071	Development of an integrated microfluidic platform for dynamic oxygen sensing and delivery in a flowing medium. *Lab on A Chip*, **2005**, 5, 1059-66	7.2	107
2070	Direct measurement of the binding force between microfabricated particles and a planar surface in aqueous solution by force-sensing piezoresistive cantilevers. **2005**, 21, 11251-61		18
2069	Protein micropatterning using surfaces modified by self-assembled polystyrene microspheres. **2005**, 21, 5233-6		16
2068	Gentle cell trapping and release on a microfluidic chip by in situ alginate hydrogel formation. *Lab on A Chip*, **2005**, 5, 553-9	7.2	76
2067	Multifunctional probe array for nano patterning and imaging. **2005**, 5, 1867-72		34
2066	Patterned biomimetic membranes: effect of concentration and pH. **2005**, 21, 7468-75		25
2065	Numerical and experimental study of critical roof collapse conditions in soft lithography. **2005**, 21, 7971-8		16
2064	Masterless soft lithography: patterning UV/ozone-induced adhesion on poly(dimethylsiloxane) surfaces. **2005**, 21, 10096-105		55
2063	Development of a microfabricated cytometry platform for characterization and sorting of individual leukocytes. *Lab on A Chip*, **2005**, 5, 30-7	7.2	142
2062	Catalytic three-dimensional protein architectures. **2005**, 77, 5089-95		45
2061	Synthesis of monodisperse biodegradable microgels in microfluidic devices. **2005**, 21, 10275-9		144
2060	Measurement of the surface concentration for bioassay kinetics in microchannels. **2005**, 77, 833-9		14
2059	Microfluidics: Fluid physics at the nanoliter scale. **2005**, 77, 977-1026		3112
2058	Reactive surface micropatterning by wet stamping. **2005**, 21, 2637-40		46

2057	Single-molecule enzymology of chymotrypsin using water-in-oil emulsion. *Biophysical Journal*, **2005**, 88, 4303-11	2.9	29
2056	Compaction kinetics on single DNAs: purified nucleosome reconstitution systems versus crude extract. *Biophysical Journal*, **2005**, 89, 3647-59	2.9	27
2055	DNA Molecules in Microfluidic Oscillatory Flow. **2005**, 38, 6680-6687		57
2054	Thermo-pneumatic, single-stroke micropump. **2005**, 15, 1425-1432		19
2053	Microfluidics for flow cytometric analysis of cells and particles. **2005**, 26, R73-98		296
2052	Torque-actuated valves for microfluidics. **2005**, 77, 4726-33		163
2051	Cell docking inside microwells within reversibly sealed microfluidic channels for fabricating multiphenotype cell arrays. *Lab on A Chip*, **2005**, 5, 1380-6	7.2	200
2050	Human neural stem cell growth and differentiation in a gradient-generating microfluidic device. *Lab on A Chip*, **2005**, 5, 401-6	7.2	438
2049	Fabrication of nanostructures of polyethylene glycol for applications to protein adsorption and cell adhesion. **2005**, 16, 2420-6		148
2048	Covalent micropatterning of poly(dimethylsiloxane) by photografting through a mask. **2005**, 77, 7539-46		125
2047	Stability of microfabricated high aspect ratio structures in poly(dimethylsiloxane). **2005**, 21, 5542-8		122
2046	Self-assembled monolayers and polymer brushes in biotechnology: current applications and future perspectives. **2005**, 6, 2427-48		621
2045	Control over wettability of polyethylene glycol surfaces using capillary lithography. **2005**, 21, 6836-41		59
2044	A general method for patterning gradients of biomolecules on surfaces using microfluidic networks. **2005**, 77, 2338-47		141
2043	Silicon-Based Microchemical Systems: Characteristics and Applications. **2006**, 31, 101-107		105
2042	Nanoliter-scale reactor arrays for biochemical sensing. **2006**, 22, 6723-6		27
2041	Enzyme-nanoparticle functionalization of three-dimensional protein scaffolds. **2006**, 78, 7022-6		27
2040	Quantitative imaging of protein adsorption on patterned organic thin-film arrays using secondary electron emission. **2006**, 128, 7871-81		30

2039	Microscale features and surface chemical functionality patterned by electron beam lithography: a novel route to poly(dimethylsiloxane) (PDMS) stamp fabrication. **2006**, 22, 6712-8		24
2038	A novel design and analysis of a 2-DOF compliant parallel micromanipulator for nanomanipulation. **2006**, 3, 247-254		54
2037	Theoretical prediction of fast 3D AC electro-osmotic pumps. *Lab on A Chip*, **2006**, 6, 1455-61	7.2	135
2036	Myotube assembly on nanofibrous and micropatterned polymers. **2006**, 6, 537-42		272
2035	Flow-induced deformation of shallow microfluidic channels. *Lab on A Chip*, **2006**, 6, 500-7	7.2	233
2034	Task-based and stable telenanomanipulation in a nanoscale virtual environment. **2006**, 3, 240-247		32
2033	Protein micropatterning based on electrochemically switched immobilization of bioligand on electropolymerized film of a dually electroactive monomer. **2006**, 4723-5		9
2032	Photopolymerized check valve and its integration into a pneumatic pumping system for biocompatible sample delivery. *Lab on A Chip*, **2006**, 6, 1091-4	7.2	23
2031	Large area protein nanopatterning for biological applications. **2006**, 6, 1165-71		114
2030	Direct confinement of individual viruses within polyethylene glycol (PEG) nanowells. **2006**, 6, 1196-201		31
2029	Micropatterning polyvinyl alcohol as a biomimetic material through soft lithography with cell culture. **2006**, 2, 299-303		27
2028	A microfluidic multi-injector for gradient generation. *Lab on A Chip*, **2006**, 6, 764-8	7.2	85
2027	Building three-dimensional nanostructures with active enzymes by surface templated layer-by-layer assembly. **2006**, 1721-3		37
2026	Soft lithographic patterning of supported lipid bilayers onto a surface and inside microfluidic channels. *Lab on A Chip*, **2006**, 6, 54-9	7.2	47
2025	IC/microfluidic hybrid system for magnetic manipulation of biological cells. **2006**, 41, 1471-1480		72
2024	Creating patterned carbon nanotube catalysts through the microcontact printing of block copolymer micellar thin films. **2006**, 22, 8273-6		42
2023	Properties of the surface-modified layer of plasma-oxidized poly(dimethylsiloxane). **2006**, 924, 1		6
2022	Interfaces to Control Cell-Biomaterial Adhesive Interactions. 171-190		69

2021	A polymeric microfluidic valve employing a pH-responsive hydrogel microsphere as an actuating source. **2006**, 16, 656-663		45
2020	Cell orientation by a microgrooved substrate can be predicted by automatic control theory. *Biophysical Journal*, **2006**, 90, 4701-11	2.9	47
2019	Purinergic junctional transmission and propagation of calcium waves in spinal cord astrocyte networks. *Biophysical Journal*, **2006**, 91, 3560-71	2.9	29
2018	Contribution of non-parenchymal cells to the performance of micropatterned hepatocytes. **2006**, 12, 2241-1251		30
2017	Hepatocyte and kupffer cells co-cultured on micropatterned surfaces to optimize hepatocyte function. **2006**, 12, 751-61		69
2016	Photochemical micropatterning of carbohydrates on a surface. **2006**, 22, 2899-905		92
2015	Grafting and patterned grafting of block copolymer nanotubes onto inorganic substrates. **2006**, 128, 15921-7		11
2014	Versatile maskless microscope projection photolithography system and its application in light-directed fabrication of DNA microarrays. **2006**, 77, 063711		21
2013	Selective assembly and alignment of actin filaments with desired polarity on solid substrates. **2006**, 22, 8635-8		18
2012	Functionalized surface arrays for spatial targeting of immune cell signaling. **2006**, 128, 5594-5		44
2011	Recognition-directed orthogonal self-assembly of polymers and nanoparticles on patterned surfaces. **2006**, 128, 3162-3		93
2010	Patterning cellular motility using an electrochemical technique and a geometrically confined environment. **2006**, 22, 10784-7		43
2009	Photolithographically patterned surface modification of poly(dimethylsiloxane) via UV-initiated graft polymerization of acrylates. **2006**, 22, 3453-5		32
2008	Microscale technologies for tissue engineering and biology. **2006**, 103, 2480-7		1304
2007	Composition-tunable properties of amphiphilic comb copolymers containing protected methacrylic acid groups for multicomponent protein patterning. **2006**, 22, 353-9		49
2006	Micropatterning of living cells on a heterogeneously wetted surface. **2006**, 22, 8257-62		90
2005	Molecular-shape imprinting and immobilization of biomolecules on a polymer containing azo dye. **2006**, 22, 2747-53		34
2004	Spatial Patterning of Thick Poly(2-hydroxyethyl methacrylate) Hydrogels. **2006**, 39, 4395-4399		22

2003	Analysis of local tissue-specific gene expression in cellular micropatterns. **2006**, 78, 8305-12	49
2002	Simple photografting method to chemically modify and micropattern the surface of SU-8 photoresist. **2006**, 22, 2719-25	76
2001	Nonequilibrium patterns of cholesterol-rich chemical heterogenieties within single fluid supported phospholipid bilayer membranes. **2006**, 22, 5374-84	17
2000	Guided three-dimensional growth of functional cardiomyocytes on polyethylene glycol nanostructures. **2006**, 22, 5419-26	105
1999	Live cell refractometry using microfluidic devices. **2006**, 31, 2759-61	122
1998	Drug delivery systems in urology--getting "smarter". **2006**, 68, 463-9	28
1997	Modulating Extracellular Matrix at Interfaces of Polymeric Materials. **2006**, 63-93	29
1996	Laser Doppler imaging of microflow. **2006**, 1,	7
1995	Measurement of Cellular Contractile Forces Using Patterned Elastomer. **2006**, 419-424	
1994	Single Cell Mechanics Study of the Human Disease Malaria. **2006**, 1, 82-92	28
1993	Biomaterials, Surface Properties of. **2006**,	
1992	Positive microcontact printing with mercaptoalkyloligo(ethylene glycol)s. **2006**, 22, 1016-26	18
1991	Microorganisms in vortices: a microfluidic setup. **2006**, 4, 392-398	33
1990	Combined microchannel-type erythrocyte deformability test with optical tweezers. **2006**, 6088, 314	2
1989	Cell Patterning. **2006**,	1
1988	Patterning High Explosives at the Nanoscale. **2006**, 31, 376-381	34
1987	Microfluidics device for single cell gene expression analysis in Saccharomyces cerevisiae. **2006**, 23, 1065-73	78
1986	Fabrication of silicon nanowire devices for ultrasensitive, label-free, real-time detection of biological and chemical species. **2006**, 1, 1711-24	605

1985	Capturing complex 3D tissue physiology in vitro. **2006**, 7, 211-24	1768
1984	Nanoparticle-assisted micropatterning of active proteins on solid substrate. **2006**, 21, 1638-43	18
1983	Polymeric microfluidic system for DNA analysis. **2006**, 556, 80-96	91
1982	Cell patterning without chemical surface modification: Cell□ell interactions between printed bovine aortic endothelial cells (BAEC) on a homogeneous cell-adherent hydrogel. **2006**, 252, 8641-8645	57
1981	Micromolding of photocrosslinkable chitosan hydrogel for spheroid microarray and co-cultures. **2006**, 27, 5259-67	277
1980	Micropatterning with aerosols: application for biomaterials. **2006**, 27, 5430-9	14
1979	Applications of microfluidics in chemical biology. **2006**, 10, 584-91	323
1978	Micropatterning of proteins on nanospheres. **2006**, 48, 95-100	11
1977	Regulation of charged groups and laminin patterns for selective neuronal adhesion. **2006**, 53, 175-8	28
1976	Microstructured extracellular matrices in tissue engineering and development. **2006**, 17, 518-23	98
1975	Micropatterned cell co-cultures using layer-by-layer deposition of extracellular matrix components. **2006**, 27, 1479-86	202
1974	Fabrication of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) (PHBHHx) microstructures using soft lithography for scaffold applications. **2006**, 27, 2550-7	20
1973	Co-culture of human embryonic stem cells with murine embryonic fibroblasts on microwell-patterned substrates. **2006**, 27, 5968-77	184
1972	Fabrication of patterned micromuscles with high activity for powering biohybrid microdevices. **2006**, 117, 391-400	32
1971	A microsphere coupled micropatterning method for cytokine detection. **2006**, 120, 125-129	7
1970	Facile solid-phase synthesis of biotinylated alkyl thiols. **2006**, 62, 6876-6881	18
1969	Biological fluid interaction with controlled surface properties of organic micro-fluidic devices. **2006**, 80, 876-879	7
1968	JSR photolithography based microvessel scaffold fabrication and cell seeding. **2006**, 8, 17-23	20

1967	A parallel-gradient microfluidic chamber for quantitative analysis of breast cancer cell chemotaxis. **2006**, 8, 109-18	168
1966	A model retinal interface based on directed neuronal growth for single cell stimulation. **2006**, 8, 141-50	12
1965	Fabrication of cell-containing hydrogel microstructures inside microfluidic devices that can be used as cell-based biosensors. **2006**, 385, 1389-97	61
1964	3-D microwell culture of human embryonic stem cells. **2006**, 27, 6032-42	205
1963	Engineering tissues for in vitro applications. **2006**, 17, 524-31	112
1962	Nanoliter scale microbioreactor array for quantitative cell biology. **2006**, 94, 5-14	187
1961	Polymeric sensor materials: toward an alliance of combinatorial and rational design tools?. **2006**, 45, 702-23	159
1960	Photobiotin surface chemistry improves label-free interferometric sensing of biochemical interactions. **2006**, 45, 955-8	14
1959	Time-controlled microfluidic seeding in nL-volume droplets to separate nucleation and growth stages of protein crystallization. **2006**, 45, 8156-60	105
1958	Site-Directed Immobilization of Proteins Through Electrochemical Deprotection on Electroactive Self-Assembled Monolayers. **2006**, 18, 1879-1884	5
1957	Functionalized magnetic micro- and nanoparticles: optimization and application to micro-chip tryptic digestion. **2006**, 27, 1811-24	65
1956	The scale of substratum topographic features modulates proliferation of corneal epithelial cells and corneal fibroblasts. **2006**, 79, 185-92	120
1955	Micromolding of photocrosslinkable hyaluronic acid for cell encapsulation and entrapment. **2006**, 79, 522-32	182
1954	Materialien f□ Sensorpolymere: M□glichkeiten kombinatorischen Designs. **2006**, 118, 718-738	18
1953	Photobiotin Surface Chemistry Improves Label-Free Interferometric Sensing of Biochemical Interactions. **2006**, 118, 969-972	3
1952	Time-Controlled Microfluidic Seeding in nL-Volume Droplets To Separate Nucleation and Growth Stages of Protein Crystallization. **2006**, 118, 8336-8340	9
1951	Dendrimer-Scaffold-Based Electron-Beam Patterning of Biomolecules. **2006**, 18, 315-319	30
1950	Hydrogels in Biology and Medicine: From Molecular Principles to Bionanotechnology. **2006**, 18, 1345-1360	3009

1949	A Micropatterned Hydrogel Platform for Chemical Synthesis and Biological Analysis. **2006**, 18, 655-659	42
1948	Facile Patterning of Periodic Arrays of Metal Oxides. **2006**, 18, 1622-1626	27
1947	Microbead Patterning on Porous Films with Ordered Arrays of Pores. **2006**, 18, 3094-3098	46
1946	A serial dilution microfluidic device for cytotoxicity assays. **2006**, 2006, 2836-9	3
1945	Fabrication of PMMA micro- and nanofluidic channels by proton beam writing: electrokinetic and morphological characterization. **2006**, 16, 1170-1180	34
1944	2nd International Symposium Interface Biology of Implants. **2006**, 7,	
1943	Micro- and Nano-assembly and Manipulation Techniques for MEMS. **2006**, 135-156	1
1942	Modular chemical mechanism predicts spatiotemporal dynamics of initiation in the complex network of hemostasis. **2006**, 103, 15747-52	69
1941	Unconventional methods for forming nanopatterns. **2006**, 220, 81-138	4
1940	Nanoscale Polymer Fabrication for Biomedical Applications. **2006**, 51-96	3
1939	Neutrophil chemorepulsion in defined interleukin-8 gradients in vitro and in vivo. **2006**, 79, 539-54	97
1938	Engineering Biomaterials Surfaces Using Micropatterning. **2006**, 15-17, 77-82	2
1937	Materials Aspects in Micro- and Nanofluidic Systems Applied to Biology. **2006**, 31, 108-113	8
1936	Complex Ohmic conductance of electrolytes in rectangular microchannels. **2006**, 124, 144710	2
1935	Realization of conducting polymer actuators using a controlled volume microsyringe system. **2006**, 15, 279-287	17
1934	Interplay of biomaterials and micro-scale technologies for advancing biomedical applications. **2006**, 17, 1221-40	35
1933	Actuation of cantilevers by optical trapping. **2006**, 89, 071106	6
1932	Microbioreactors. **2006**,	

1931	Anisotropic mechanosensing by mesenchymal stem cells. **2006**, 103, 16095-100	333
1930	Immunological synapse arrays: patterned protein surfaces that modulate immunological synapse structure formation in T cells. **2006**, 103, 5700-5	144
1929	Predicting complex biology with simple chemistry. **2006**, 103, 15727-8	15
1928	Synaptic reorganization in scaled networks of controlled size. **2007**, 27, 13581-9	41
1927	Rigidity-driven growth and migration of epithelial cells on microstructured anisotropic substrates. **2007**, 104, 8281-6	301
1926	. **2007**,	1
1925	Microfluidic liquid filters for leukocyte isolation. **2007**, 2007, 6319-22	2
1924	Nanolithography: Towards Fabrication of Nanodevices for Life Sciences. **2007**,	
1923	Applications of MEMS technologies in tissue engineering. **2007**, 13, 2839-54	23
1922	Micro-Scale Patterning of Cells and Their Environment. **2007**, 265-278	
1921	Computational and functional evaluation of a microfluidic blood flow device. **2007**, 53, 447-55	15
1920	Gradients of Stiffness Guide Neurite Growth in 3D Collagen Gels. **2007**, 113	
1919	Advancing decal-transfer lithography with a reusable PDMS-coated nanoscale stamp. **2007**, 129, 11304-5	11
1918	Spatially patterned gene delivery for localized neuron survival and neurite extension. **2007**, 15, 705-12	43
1917	Registration accuracy in multilevel soft lithography. **2007**, 18, 175302	14
1916	A hybrid microsystem for parallel perfusion experiments on living cells. **2007**, 17, 1721-1730	7
1915	Directed assembly of fluidic networks by buckle delamination of films on patterned substrates. **2007**, 98, 1203-1208	14
1914	PRESSURE-ASSISTED SPINNING: A UNIQUE AND VERSATILE APPROACH FOR DIRECTLY FABRICATING MEMBRANES WITH MICRO- AND NANOFIBERS. **2007**, 02, 213-219	10

1913	. **2007**,	
1912	Microfluidic engineered high cell density three-dimensional neural cultures. **2007**, 4, 159-72	47
1911	Surface patterning. **2007**, 83, 67-87	13
1910	Preparation of Self-assembled Monolayers (SAMs) on Au and Ag. **2007**,	1
1909	A single-molecule barcoding system using nanoslits for DNA analysis. **2007**, 104, 2673-8	265
1908	Simple fabrication technique for rapid prototyping of seamless cylindrical microchannels in polymer substrates. **2007**, 78, 044302	16
1907	The future of quark matter at RHIC. **2007**, 34, S543-S550	4
1906	Picoliter wells from selective growth of HEK293 cells on chemically modified PDMS surfaces. **2007**, 21, 235-49	2
1905	Nanodevices for Single Molecule Studies. **2007**, 271-301	3
1904	BioMEMS and Biomedical Nanotechnology. **2007**,	16
1903	Surface graft polymerization of SU-8 for bio-MEMS applications. **2007**, 17, 1371-1380	46
1902	Retrospective and prospective responses arising in a modeled hippocampus during maze navigation by a brain-based device. **2007**, 104, 3556-61	38
1901	Characterization study of bonded and unbonded polydimethylsiloxane aimed for bio-micro-electromechanical systems-related applications. **2007**, 6, 023008	19
1900	1A3 Micro & Nano Biomechanics III. **2007**, 2, S17-S22	
1899	Cellular Behavior on Basement Membrane Inspired Topographically Patterned Synthetic Matrices. 297-319	1
1898	Clinical Applications of Micro- and Nanoscale Biosensors. 439-460	3
1897	Holographic optical tweezers combined with a microfluidic device for exposing cells to fast environmental changes. **2007**,	5
1896	Subfeature patterning of organic and inorganic materials using robotic assembly. **2007**, 22, 1601-1608	9

1895	Synthetic surfaces as artificial antigen presenting cells in the study of T cell receptor triggering and immunological synapse formation. **2007**, 19, 245-54		21
1894	Development of a microfluidic device for determination of cell osmotic behavior and membrane transport properties. **2007**, 55, 200-9		35
1893	A quaternary SNARE-synaptotagmin-Ca2+-phospholipid complex in neurotransmitter release. **2007**, 367, 848-63		98
1892	Patterned biofunctional designs of thermoresponsive surfaces for spatiotemporally controlled cell adhesion, growth, and thermally induced detachment. **2007**, 28, 3632-43		81
1891	Tools to study cell mechanics and mechanotransduction. **2007**, 83, 443-72		39
1890	Nanoliter dispensing method by degassed poly(dimethylsiloxane) microchannels and its application in protein crystallization. **2007**, 79, 4924-30		61
1889	Micro-bioreactor array for controlling cellular microenvironments. *Lab on A Chip*, **2007**, 7, 710-9	7.2	187
1888	Micro- and nanopatterned star poly(ethylene glycol) (PEG) materials prepared by UV-based imprint lithography. **2007**, 23, 7841-6		40
1887	Gradient generation by an osmotic pump and the behavior of human mesenchymal stem cells under the fetal bovine serum concentration gradient. *Lab on A Chip*, **2007**, 7, 1673-80	7.2	90
1886	A microfabricated array of clamps for immobilizing and imaging C. elegans. *Lab on A Chip*, **2007**, 7, 1515-22	7.2	182
1885	A microfluidic system in combination with optical tweezers for analyzing rapid and reversible cytological alterations in single cells upon environmental changes. *Lab on A Chip*, **2007**, 7, 71-6	7.2	110
1884	Density control of poly(ethylene glycol) layer to regulate cellular attachment. **2007**, 23, 6698-703		74
1883	Vascular mimetics based on microfluidics for imaging the leukocyte--endothelial inflammatory response. *Lab on A Chip*, **2007**, 7, 448-56	7.2	112
1882	Muscular thin films for building actuators and powering devices. **2007**, 317, 1366-70		572
1881	Single cells or large populations?. *Lab on A Chip*, **2007**, 7, 544-6	7.2	71
1880	Patterning polymeric structures with 2 nm resolution at 3 nm half pitch in ambient conditions. **2007**, 7, 1846-50		74
1879	Controlled Nanoscale Motion. **2007**,		3
1878	Optofluidic maskless lithography system for real-time synthesis of photopolymerized microstructures in microfluidic channels. **2007**, 91, 041106		120

1877	Photoreactive immobilization of 11-(2,4-dinitro-5-fluorobenzene)undecenamide on a hydrogenated silicon (100) surface for protein immobilizations. **2007**, 1611-3		1
1876	Cellular impedance biosensors for drug screening and toxin detection. **2007**, 132, 835-41		129
1875	Rapid Fabrication of Micromolds for Polymeric Microfluidic Devices. **2007**,		5
1874	Cell motility on micropatterned treadmills and tracks. **2007**, 3, 672-679		33
1873	Fabrication of microfluidic hydrogels using molded gelatin as a sacrificial element. *Lab on A Chip*, **2007**, 7, 720-5	7.2	398
1872	Microtechnology: meet neurobiology. *Lab on A Chip*, **2007**, 7, 30-40	7.2	69
1871	A linear dilution microfluidic device for cytotoxicity assays. *Lab on A Chip*, **2007**, 7, 226-32	7.2	73
1870	Micro- and nanoscale technologies for tissue engineering and drug discovery applications. **2007**, 2, 1653-68		61
1869	On-chip generation of microbubbles as a practical technology for manufacturing contrast agents for ultrasonic imaging. *Lab on A Chip*, **2007**, 7, 463-8	7.2	209
1868	Microfabrication for tissue engineering: rethinking the cells-on-a scaffold approach. **2007**, 17, 1248		23
1867	Microfabricated embryonic stem cell divider for large-scale propagation of human embryonic stem cells. *Lab on A Chip*, **2007**, 7, 513-5	7.2	17
1866	Comparative study and improvement of current cell micro-patterning techniques. *Lab on A Chip*, **2007**, 7, 672-80	7.2	137
1865	Fabrication of Cell-Adhesion Surface and Capillary Vessel Model by Photolithography. **2007**,		2
1864	Additively Patterned Polymer Thin Films by Photo-Initiated Chemical Vapor Deposition (piCVD). **2007**, 19, 5836-5838		12
1863	Electrochemistry and Contact Angles of an Ionic Liquid Sessile Droplet on Films of Monolayer-Protected Au Nanoparticles. **2007**, 79, 1213-1220		28
1862	Spatiotemporal micropatterning of cells on arbitrary substrates. **2007**, 79, 4066-73		36
1861	Dual functional, polymeric self-assembled monolayers as a facile platform for construction of patterns of biomolecules. **2007**, 23, 10902-5		55
1860	Simultaneous self-assembly, orientation, and patterning of peptide-amphiphile nanofibers by soft lithography. **2007**, 7, 1165-71		84

1859	Photoresist with low fluorescence for bioanalytical applications. **2007**, 79, 8774-80		89
1858	Cell and protein compatibility of parylene-C surfaces. **2007**, 23, 11718-25		254
1857	Short peptides enhance single cell adhesion and viability on microarrays. **2007**, 23, 4472-9		47
1856	Phase behavior and rheological properties of polyamine-rich complexes for direct-write assembly. **2007**, 23, 12752-9		16
1855	Flow photolysis for spatiotemporal stimulation of single cells. **2007**, 79, 3940-4		52
1854	Characterization of supported membranes on topographically patterned polymeric elastomers and their applications to microcontact printing. **2007**, 23, 12645-54		10
1853	Microfluidic exploration of the phase diagram of a surfactant/water binary system. **2007**, 23, 2315-7		24
1852	Thin Film Thickness Gradients and Spatial Patterning via Salt Etching of Polyelectrolyte Multilayers. **2007**, 40, 5479-5486		46
1851	Direct photopatterning and SEM imaging of molecular monolayers on diamond surfaces: mechanistic insights into UV-initiated molecular grafting. **2007**, 23, 11623-30		28
1850	Adsorption-resistant acrylic copolymer for prototyping of microfluidic devices for proteins and peptides. **2007**, 79, 1926-31		30
1849	Biomaterials approach to expand and direct differentiation of stem cells. **2007**, 15, 467-80		239
1848	Analysis of single mammalian cells on-chip. *Lab on A Chip*, **2007**, 7, 423-40	7.2	347
1847	Characterization of the threshold response of initiation of blood clotting to stimulus patch size. *Biophysical Journal*, **2007**, 93, 2969-77	2.9	43
1846	Modeling DNA in Confinement: A Comparison between the Brownian Dynamics and Lattice Boltzmann Method. **2007**, 40, 5978-5984		36
1845	Chemotactic response of marine micro-organisms to micro-scale nutrient layers. **2007**, 203		2
1844	. **2007**,		49
1843	. **2007**,		21
1842	A method for patterning multiple types of cells by using electrochemical desorption of self-assembled monolayers within microfluidic channels. **2007**, 46, 1094-6		133

1841	Rapid patterning of cells and cell co-cultures on surfaces with spatial and temporal control through centrifugation. **2007**, 46, 7437-9	24
1840	A Method for Patterning Multiple Types of Cells by Using Electrochemical Desorption of Self-Assembled Monolayers within Microfluidic Channels. **2007**, 119, 1112-1114	24
1839	Rapid Patterning of Cells and Cell Co-Cultures on Surfaces with Spatial and Temporal Control through Centrifugation. **2007**, 119, 7581-7583	6
1838	Micro- and Nanoscale Control of Cellular Environment for Tissue Engineering. 347-364	4
1837	Addressable Protein Patterning via Switchable Superhydrophobic Microarrays. **2007**, 17, 2680-2686	60
1836	Micropatterning of Proteins on 3D Porous Polymer Film Fabricated by Using the Breath-Figure Method. **2007**, 19, 913-916	123
1835	Sculptured Layer-by-Layer Films. **2007**, 19, 3827-3832	31
1834	Submicron poly(L-lactic acid) pillars affect fibroblast adhesion and proliferation. **2007**, 82, 80-91	56
1833	Rapid bonding of Pyrex glass microchips. **2007**, 28, 994-1001	17
1832	The effects of proteoglycan surface patterning on neuronal pathfinding. **2007**, 38, 975	4
1831	Thiolated poly(ε-caprolactone) macroligand with vacant coordination sites on gold substrate: Synthesis and surface characterization. **2007**, 601, 1677-1683	2
1830	Surface characterization of plasma-treated and PEG-grafted PDMS for micro fluidic applications. **2007**, 81, 1094-1100	52
1829	Patterned cell adhesion by self-assembled structures for use with a CMOS cell-based biosensor. **2007**, 22, 1426-33	31
1828	Microfluidic systems integrated with two-dimensional surface plasmon resonance phase imaging systems for microarray immunoassay. **2007**, 23, 466-72	106
1827	Fabrication methods of an engineered microenvironment for analysis of cell-biomaterial interactions. **2007**, 28, 126-33	98
1826	Assembly of polystyrene microspheres and its application in cell micropatterning. **2007**, 28, 2328-38	43
1825	A hybrid microfluidic-vacuum device for direct interfacing with conventional cell culture methods. **2007**, 7, 60	45
1824	Creating nanopatterns of His-tagged proteins on surfaces by nanoimprint lithography using specific NiNTA-histidine interactions. **2007**, 3, 1584-92	52

1823	A physical organic mechanistic approach to understanding the complex reaction network of hemostasis (blood clotting). **2007**, 20, 711-715	6
1822	Integrated optofluidics: A new river of light. **2007**, 1, 106-114	733
1821	Microfabrication meets microbiology. **2007**, 5, 209-18	596
1820	Free-solution, label-free molecular interactions studied by back-scattering interferometry. **2007**, 317, 1732-6	168
1819	The effect of fluidic conditions on the continuous-flow bioluminescent detection of ATP in a microfluidic device. **2007**, 12, 470-474	6
1818	External force-assisted cell positioning inside microfluidic devices. **2007**, 9, 15-23	25
1817	Microfluidic patterning for fabrication of contractile cardiac organoids. **2007**, 9, 149-57	159
1816	Generation of stable concentration gradients in 2D and 3D environments using a microfluidic ladder chamber. **2007**, 9, 627-35	169
1815	A microfabricated platform probing cytoskeleton dynamics using multidirectional topographical cues. **2007**, 9, 523-31	38
1814	Biospecific anchoring and spatially confined germination of bacterial spores in non-biofouling microwells. **2007**, 28, 5594-600	16
1813	Culturing neuron cells on electrode with self-assembly monolayer. **2007**, 22, 2346-50	13
1812	Patterning of proteins and cells on functionalized surfaces prepared by polyelectrolyte multilayers and micromolding in capillaries. **2007**, 22, 3188-95	58
1811	Patterned gallium surfaces as molecular mirrors. **2007**, 23, 290-4	7
1810	Patterned surfaces as tools to study ligand recognition and synapse formation by T cells. **2007**, 19, 463-9	14
1809	A microfluidic study of mouse dendritic cell membrane transport properties of water and cryoprotectants. **2008**, 51, 5687-5694	23
1808	MICROPATTERNING OF GOLD SUBSTRATES BASED ON POLY(PROPYLENE SULFIDE-BL-ETHYLENE GLYCOL), (PPS-PEG) BACKGROUND PASSIVATION AND THE MOLECULAR-ASSEMBLY PATTERNING BY LIFT-OFF (MAPL) TECHNIQUE. **2008**, 602, 2305-2310	13
1807	Experimental investigation and computational modeling of hydrodynamics in bifurcating microchannels. **2008**, 10, 355-65	14
1806	Microcontact printing of quantum dot bioconjugate arrays for localized capture and detection of biomolecules. **2008**, 10, 367-74	23

1805	Protein functionalized micro hydrogel features for cell-surface interaction. **2008**, 10, 567-71	7
1804	Characterization of microfluidic human epidermal keratinocyte culture. **2008**, 56, 197-207	37
1803	Purinergic junctional transmission and propagation of calcium waves in cultured spinal cord microglial networks. **2008**, 4, 47-59	10
1802	Polymer microfabrication technologies for microfluidic systems. **2008**, 390, 89-111	705
1801	Force microscopy analysis using chemometric tools. **2008**, 390, 1253-60	1
1800	Contractility-dependent modulation of cell proliferation and adhesion by microscale topographical cues. **2008**, 4, 1416-24	44
1799	A plug and play polymer through biocomplementary hydrogen bonding. **2008**, 46, 6416-6424	43
1798	Cell shape regulates collagen type I expression in human tendon fibroblasts. **2008**, 65, 332-41	59
1797	Connective-tissue responses to defined biomaterial surfaces. I. Growth of rat fibroblast and bone marrow cell colonies on microgrooved substrates. **2008**, 85, 313-25	41
1796	Fabricate coaxial stacked nerve conduits through soft lithography and molding processes. **2008**, 85, 434-8	17
1795	Instability of self-assembled monolayers as a model material system for macrophage/FBGC cellular behavior. **2008**, 86, 261-8	19
1794	On-chip tryptic digest with direct coupling to ESI-MS using magnetic particles. **2008**, 29, 4944-7	28
1793	Epidermal growth factor promotes breast cancer cell chemotaxis in CXCL12 gradients. **2008**, 100, 1205-13	58
1792	Microfluidics meet cell biology: bridging the gap by validation and application of microscale techniques for cell biological assays. **2008**, 30, 811-21	161
1791	Photochemical surface patterning by the thiol-ene reaction. **2008**, 47, 4421-4	169
1790	Chemical strategies for generating protein biochips. **2008**, 47, 9618-47	507
1789	The Patterning of Sub-500 nm Inorganic Oxide Structures. **2008**, 20, 2667-73	88
1788	Photochemical Surface Patterning by the Thiol-Ene Reaction. **2008**, 120, 4493-4496	51

1787	Chemische Verfahren zur Herstellung von Proteinbiochips. **2008**, 120, 9762-9792	57
1786	Novel microsystems for concentration gradient generation through computer optimization with validation using optical instrumentation. **2008**, 85, 1265-1268	12
1785	Electroactive carbon nanotube actuators: Soft-lithographic fabrication and electro-chemical modelling. **2008**, 28, 1057-1064	9
1784	Preparation of micropatterned hydrogel substrate via surface graft polymerization combined with photolithography for biosensor application. **2008**, 129, 841-849	54
1783	Spatially well-defined binary brushes of poly(ethylene glycol)s for micropatterning of active proteins on anti-fouling surfaces. **2008**, 24, 779-86	44
1782	Epitope mapping of allergen ovalbumin using biofunctionalized magnetic beads packed in microfluidic channels The first step towards epitope-based vaccines. **2008**, 1206, 64-71	30
1781	A novel DNA biosensor based on ellipsometry. **2008**, 602, 952-959	33
1780	Superporous agarose beads as a solid support for microfluidic immunoassay. **2008**, 108, 1384-9	18
1779	Individually programmable cell stretching microwell arrays actuated by a Braille display. **2008**, 29, 2646-55	99
1778	Development of an artificial neuronal network with post-mitotic rat fetal hippocampal cells by polyethylenimine. **2008**, 23, 1221-8	28
1777	The fabrication and performance of a poly(dimethylsiloxane) (PDMS)-based microreformer for application to electronics. **2008**, 33, 2059-2063	18
1776	Electrochemical Dopamine Detection: Comparing Gold and Carbon Fiber Microelectrodes using Background Subtracted Fast Scan Cyclic Voltammetry. **2008**, 614, 113-120	98
1775	Microenvironments engineered by inkjet bioprinting spatially direct adult stem cells toward muscle- and bone-like subpopulations. **2008**, 26, 127-34	292
1774	Controlled drug delivery in tissue engineering. **2008**, 60, 229-42	327
1773	Metabolic gene regulation in a dynamically changing environment. **2008**, 454, 1119-22	238
1772	Microscale culture of human liver cells for drug development. **2008**, 26, 120-6	958
1771	Spatial localization of bacteria controls coagulation of human blood by 'quorum acting'. **2008**, 4, 742-50	76
1770	Three-dimensional lithographically defined organotypic tissue arrays for quantitative analysis of morphogenesis and neoplastic progression. **2008**, 3, 674-8	106

1769	Signals and Systems: Towards a Systems Biology of Signal Transduction. **2008**, 96, 1386-1397		10
1768	Using chemistry and microfluidics to understand the spatial dynamics of complex biological networks. **2008**, 41, 549-58		20
1767	Micropatterned structural control suppresses mechanotaxis of endothelial cells. *Biophysical Journal* , **2008**, 95, 3066-78	2.9	27
1766	3'-phosphoinositides regulate the coordination of speed and accuracy during chemotaxis. *Biophysical Journal*, **2008**, 95, 4057-67	2.9	11
1765	Experimental verification of the behavioral foundation of bacterial transport parameters using microfluidics. *Biophysical Journal*, **2008**, 95, 4481-93	2.9	74
1764	Carbonic anhydrase as a model for biophysical and physical-organic studies of proteins and protein-ligand binding. **2008**, 108, 946-1051		541
1763	Cell culture models in microfluidic systems. **2008**, 1, 423-49		272
1762	Temperature-responsive self-assembled monolayers of oligo(ethylene glycol): control of biomolecular recognition. **2008**, 2, 757-65		107
1761	Assembly of organic monolayers on polydicyclopentadiene. **2008**, 24, 10480-7		24
1760	The pursuit of a scalable nanofabrication platform for use in material and life science applications. **2008**, 41, 1685-95		127
1759	Low-Cost MEMS Technologies. **2008**, 341-378		5
1758	In Vitro Electrochemistry of Biological Systems. **2008**, 1, 329		78
1757	Microcirculation within grooved substrates regulates cell positioning and cell docking inside microfluidic channels. *Lab on A Chip*, **2008**, 8, 747-54	7.2	65
1756	An automatic and quantitative on-chip cell migration assay using self-assembled monolayers combined with real-time cellular impedance sensing. *Lab on A Chip*, **2008**, 8, 872-8	7.2	66
1755	Surface Modification of Biomaterials. **2008**, 656-665		3
1754	A microdevice for multiplexed detection of T-cell-secreted cytokines. *Lab on A Chip*, **2008**, 8, 2197-205	7.2	84
1753	Multifunctional protein microarrays for cultivation of cells and immunodetection of secreted cellular products. **2008**, 80, 6351-7		25
1752	Exercising spatiotemporal control of cell attachment with optically transparent microelectrodes. **2008**, 24, 6837-44		39

1751	A patented drop-free trocar for ophthalmic applications: design and realization [From Mind to Market]]. **2008**, 2, 4-8		
1750	Development of biodegradable scaffolds based on patient-specific arterial configuration. **2008**, 133, 213-8		47
1749	Nanotechnology for regenerative medicine: nanomaterials for stem cell imaging. **2008**, 3, 567-78		175
1748	Micro and Nanopatterning for Bacteria- and Virus-Based Biosensing Applications. **2008**, 855-868		2
1747	A nanoengineering approach for investigation and regulation of protein immobilization. **2008**, 2, 2374-84		180
1746	Microfluidic platform for real-time signaling analysis of multiple single T cells in parallel. *Lab on A Chip*, **2008**, 8, 1700-12	7.2	113
1745	Controlled Liquid–Air Interfaces and Interfacial Polymer Micromembranes in Microfluidic Channels. **2008**, 17, 962-973		6
1744	Integrated circuit/microfluidic chip to programmably trap and move cells and droplets with dielectrophoresis. *Lab on A Chip*, **2008**, 8, 81-7	7.2	127
1743	Integrated microfluidic systems for cell culture and characterization. **2008**,		1
1742	Chemotaxis in microfluidic devices--a study of flow effects. *Lab on A Chip*, **2008**, 8, 1087-96	7.2	30
1741	Regulation of pattern dimension as a function of vacuum pressure: alkyl monolayer lithography. **2008**, 24, 12077-84		24
1740	Methods for studying mechanical control of angiogenesis by the cytoskeleton and extracellular matrix. **2008**, 443, 227-59		7
1739	Rapid fabrication of tooling for microfluidic devices via laser micromachining and hot embossing. **2008**, 18, 025012		44
1738	Improved temporal resolution for in vivo microdialysis by using segmented flow. **2008**, 80, 5607-15		99
1737	A facile method of forming nanoscale patterns on poly(ethylene glycol)-based surfaces by self-assembly of randomly grafted block copolymer brushes. **2008**, 24, 8303-8		52
1736	Molecular organization in SAMs used for neuronal cell growth. **2008**, 24, 4097-106		25
1735	Use of photolithography to encode cell adhesive domains into protein microarrays. **2008**, 24, 2232-9		45
1734	Blocking of disulfide adsorption by coadsorbing omega-functionalized alkane thiols revealed by wet stamping and fluorescence microscopy. **2008**, 24, 11600-4		13

1733	An improved method for double-sided moulding of PDMS. **2008**, 18, 075037	21
1732	Real-time microfluidic system for studying mammalian cells in 3D microenvironments. **2008**, 80, 3640-7	89
1731	High-throughput quantitative polymerase chain reaction in picoliter droplets. **2008**, 80, 8975-81	270
1730	Tunable resistive m-dPEG acid patterns on polyelectrolyte multilayers at physiological conditions: template for directed deposition of biomacromolecules. **2008**, 24, 224-30	14
1729	Protein recording material: photorecord/erasable protein array using a UV-eliminative linker. **2008**, 24, 1625-8	10
1728	Templated protein assembly on micro-contact-printed surface patterns. Use of the SNAP-tag protein functionality. **2008**, 24, 6375-81	35
1727	Technique of surface modification of a cell-adhesion-resistant hydrogel by a cell-adhesion-available inorganic microarray. **2008**, 9, 2569-72	49
1726	Novel high-resolution micropatterning for neuron culture using polylysine adsorption on a cell repellant, plasma-polymerized background. **2008**, 24, 13048-57	35
1725	Pulsing cells: how fast is too fast?. **2008**, 2, 251-6	10
1724	Surface-attached PDMAA-GRGDSP hybrid polymer monolayers that promote the adhesion of living cells. **2008**, 9, 543-52	48
1723	Fabrication Technologies. **2008**, 79-134	1
1722	Competitive immunoassays for simultaneous detection of metabolites and proteins using micromosaic patterning. **2008**, 80, 444-50	39
1721	The future of microfluidic assays in drug development. **2008**, 3, 1237-53	27
1720	Biomechanical ordering of dense cell populations. **2008**, 105, 15346-51	183
1719	Endothelial cell migration in stable gradients of vascular endothelial growth factor A and fibroblast growth factor 2: effects on chemotaxis and chemokinesis. **2008**, 283, 13905-12	126
1718	The crossover from parallel shift to fan-shape broadening of the superconducting transition of La1.44Nd0.4Sr0.16CuO4films in magnetic fields. **2008**, 21, 095005	3
1717	Surface Modification. **2008**, 2540-2550	
1716	The mechanical properties of a surface-modified layer on poly(dimethylsiloxane). **2008**, 23, 37-48	92

1715	Neural network approach to modeling hot intrusion process for micromold fabrication. **2008**,	
1714	Microsystems for biomechanical measurements. **2008**, 63, 576-83	24
1713	Microstructures in 3D biological gels affect cell proliferation. **2008**, 14, 379-90	29
1712	Nanobiotechnology and cell biology: micro- and nanofabricated surfaces to investigate receptor-mediated signaling. **2008**, 37, 265-88	79
1711	Rapid chemotactic response enables marine bacteria to exploit ephemeral microscale nutrient patches. **2008**, 105, 4209-14	267
1710	Micropatterning of costimulatory ligands enhances CD4+ T cell function. **2008**, 105, 7791-6	100
1709	Quantitative phase imaging of nanoscale cell structure and dynamics. **2008**, 90, 87-115	72
1708	BioMEMS -Advancing the Frontiers of Medicine. **2008**, 8, 6077-6107	43
1707	The effect of concentration in the patterning of silica particles by the soft lithographic technique. **2008**, 17, 065031	4
1706	Chapter 11. Intravital microscopic investigation of leukocyte interactions with the blood vessel wall. **2008**, 445, 255-79	12
1705	Air to liquid sample collection devices using microfluidic gas/liquid interfaces. **2008**,	1
1704	An Application of Stream Imaging Technique in the Study of Osmotic Behaviors of Multiple Cells. **2008**, 6, 125-132	
1703	Cell Traction Force Microscopy for Musculoskeletal Research. **2008**, 773-787	
1702	Integration of ultrasonic transducers in fast prototyping microfluidic devices. **2008**, 103, 094701	6
1701	Unconventional Patterning Methods for Bionems. 325-357	
1700	A soft lithography route to nanopatterned photovoltaic devices. **2008**,	
1699	Molecular Recognition and Specific Interactions for Biosensing Applications. **2008**, 8, 6605-6641	60
1698	Cellular responses to novel, micropatterned biomaterials. **2008**, 80, 2479-2487	36

1697	Microscale Technologies for Tissue Engineering. **2008**, 349-369	6
1696	Dissolved oxygen sensing using organometallic dyes deposited within a microfluidic environment. **2008**,	
1695	Genomic, genetic and physiological effects of bio-electrospraying on live cells of the model yeast Saccharomyces cerevisiae. **2008**, 3, 034125	13
1694	. **2008**,	26
1693	Response of human trabecular meshwork cells to topographic cues on the nanoscale level. **2008**, 49, 629-35	36
1692	In-situ??????????????????????. **2008**, 59, 371-376	1
1691	Formation of Nanoscale Bioimprints of Muscle Cells Using UV-Cured Spin-Coated Polymers. **2009**, 2009, 1-6	5
1690	Ultrahydrophobicity of Polydimethylsiloxanes-Based Multilayered Thin Films. **2009**, 2009, 1-8	4
1689	Heterotypic cell-cell interaction on micropatterned surfaces. **2009**, 32, 507-16	3
1688	Microscale technologies for tissue engineering. **2009**,	2
1687	Dissolution of a liquid microdroplet in a nonideal liquid-liquid mixture far from thermodynamic equilibrium. **2009**, 103, 064501	34
1686	Mass transfer and interfacial properties in two-phase microchannel flows. **2009**, 11, 115005	40
1685	Separation of microscale chiral objects by shear flow. **2009**, 102, 158103	79
1684	Microfluidics for Biological Applications. **2009**,	3
1683	An amorphous silicon photodiode array for glass-based optical MEMS application. **2009**,	3
1682	Microchip system for monitoring microbial physiological behaviour under drug influences. **2009**, 223, 777-86	4
1681	Adhesive micropatterns for cells: a microcontact printing protocol. **2009**, 2009, pdb.prot5255	78
1680	A microfluidic manipulator for enrichment and alignment of moving cells and particles. **2009**, 131, 074505	6

1679	High-throughput and combinatorial technologies for tissue engineering applications. **2009**, 15, 225-39	50
1678	Surface functionalization for protein and cell patterning. **2010**, 117, 109-30	6
1677	A low-temperature polycrystalline-silicon thin-film transistor micro-manipulation array with indium tin oxide micro-coils and real-time detection. **2009**, 19, 125023	
1676	Single-Molecule Assay of Biological Reaction in Femtoliter Chamber Array. **2009**, 48, 08JA04	4
1675	High Voltage Dielectrophoretic and Magnetophoretic Hybrid Integrated Circuit / Microfluidic Chip. **2009**, 18, 1220-1225	19
1674	Applications of microscale technologies for regenerative dentistry. **2009**, 88, 409-21	29
1673	Cell culture on MEMS platforms: a review. **2009**, 10, 5411-41	109
1672	Mitrofan Fedorovich Stel'makh (1918–1993). **2009**, 39, 110-110	
1671	Effects of Thickness Deviation of Elastic Plates in Multi-Layered Resonance Systems on Frequency Spectra. **2009**, 26, 084301	1
1670	Effects of confinement on the self-organization of microtubules and motors. **2009**, 19, 954-60	96
1669	Micro- and nanofluidic systems for high-throughput biological screening. **2009**, 14, 134-46	171
1668	Preparation of coculture system with three extracellular matrices using capillary force lithography and layer-by-layer deposition. **2009**, 108, 544-50	21
1667	A Method for the Real-Time Observation of Endodermal Cell Behavior on Micropatterned Surfaces. **2009**, 11, B106-B113	2
1666	Capillary Force Lithography: A Versatile Tool for Structured Biomaterials Interface Towards Cell and Tissue Engineering. **2009**, 19, 2699-2712	138
1665	Solvent-Resistant PDMS Microfluidic Devices with Hybrid Inorganic/Organic Polymer Coatings. **2009**, 19, 3796-3803	83
1664	Aligned Cell Sheets Grown on Thermo-Responsive Substrates with Microcontact Printed Protein Patterns. **2009**, 21, 2161-2164	69
1663	Mass Spectrometry Assisted Lithography for the Patterning of Cell Adhesion Ligands on Self-Assembled Monolayers. **2009**, 121, 3559-3563	4
1662	A microwell array device with integrated microfluidic components for enhanced single-cell analysis. **2009**, 30, 4166-71	37

1661	Micropatterned surfaces with controlled ligand tethering. **2009**, 90, 755-65		8
1660	Cell-patterning using poly (ethylene glycol)-modified magnetite nanoparticles. **2010**, 92, 1123-30		11
1659	Chemical and physical modifications to poly(dimethylsiloxane) surfaces affect adhesion of Caco-2 cells. **2010**, 93, 1260-71		60
1658	Using Azobenzene-Embedded Self-Assembled Monolayers To Photochemically Control Cell Adhesion Reversibly. **2009**, 121, 4470-4472		36
1657	Mass spectrometry assisted lithography for the patterning of cell adhesion ligands on self-assembled monolayers. **2009**, 48, 3507-11		29
1656	Using azobenzene-embedded self-assembled monolayers to photochemically control cell adhesion reversibly. **2009**, 48, 4406-8		218
1655	Neurite growth in 3D collagen gels with gradients of mechanical properties. **2009**, 102, 632-43		140
1654	Microfabricated arrays of cylindrical wells facilitate single-molecule enzymology of alpha-chymotrypsin. **2009**, 25, 929-37		5
1653	Controlled wrinkling as a novel method for the fabrication of patterned surfaces. **2009**, 165, 249-263		179
1652	Microfluidic devices harboring unsealed reactors for real-time isothermal helicase-dependent amplification. *Microfluidics and Nanofluidics*, **2009**, 7, 325	2.8	51
1651	Timing is everything: using fluidics to understand the role of temporal dynamics in cellular systems. *Microfluidics and Nanofluidics*, **2009**, 6, 717-729	2.8	29
1650	Surface molecular property modifications for poly(dimethylsiloxane) (PDMS) based microfluidic devices. *Microfluidics and Nanofluidics*, **2009**, 7, 291-306	2.8	367
1649	Patterned and switchable surfaces for biomolecular manipulation. **2009**, 5, 2350-70		79
1648	The effect of surface microtopography of poly(dimethylsiloxane) on protein adsorption, platelet and cell adhesion. **2009**, 71, 275-81		67
1647	Microfluidic aqueous two phase system for leukocyte concentration from whole blood. **2009**, 11, 323-9		98
1646	Multicompartmented microfluidic device for characterization of dose-dependent cadmium cytotoxicity in BALB/3T3 fibroblast cells. **2009**, 11, 401-11		23
1645	Real-time PCR array chip with capillary-driven sample loading and reactor sealing for point-of-care applications. **2009**, 11, 1007-20		38
1644	Dissecting the Molecular Basis of the Mechanics of Living Cells. **2009**, 49, 11-23		16

1643	Cell orientation on a stripe-micropatterned surface. **2009**, 54, 3154-3159	31
1642	Plasma stencilling methods for cell patterning. **2009**, 395, 601-9	57
1641	Nanopatterning of proteins using composite nanomold and self-assembled polyelectrolyte multilayers. **2009**, 17, 232-239	5
1640	Methods for Cell Micropatterning on Two-Dimensional Surfaces and Their Applications in Biology. **2009**, 37, 943-949	23
1639	Differentiation of neural progenitor cells in a microfluidic chip-generated cytokine gradient. **2009**, 27, 2646-54	129
1638	Top-down particle fabrication: control of size and shape for diagnostic imaging and drug delivery. **2009**, 1, 391-404	122
1637	Micro- and nanoprinting into solids using reaction-diffusion etching and hydrogel stamps. **2009**, 5, 22-7	26
1636	Micro-nanostructured protein arrays: a tool for geometrically controlled ligand presentation. **2009**, 5, 1014-8	46
1635	Nanomolding of PEG-based hydrogels with sub-10-nm resolution. **2009**, 5, 2756-60	26
1634	Microfluidic devices for measuring gene network dynamics in single cells. **2009**, 10, 628-38	192
1633	Investigation of the spreading and adhesion of human osteosarcoma cells on smooth and micro-grooved polydimethylsiloxane surfaces. **2009**, 29, 119-125	11
1632	Polyurethane unimorph bender microfabricated with Pressure Assisted Microsyringe (PAM) for biomedical applications. **2009**, 29, 1835-1841	17
1631	Cell patterning on a glass surface by a mask-assisted ion implantation. **2009**, 267, 1089-1092	1
1630	Development of elastomeric lab-on-a-chip devices through Proton Beam Writing (PBW) based fabrication strategies. **2009**, 267, 2312-2316	8
1629	The use of electron beam lithographic graft-polymerization on thermoresponsive polymers for regulating the directionality of cell attachment and detachment. **2009**, 30, 2095-101	66
1628	Plasma-assisted surface chemical patterning for single-cell culture. **2009**, 30, 4203-10	34
1627	Initiated chemical vapor deposition of a siloxane coating for insulation of neural probes. **2009**, 517, 3612-3614	12
1626	Nano patterned PDMS for periodontal ligament fibroblast culture. **2009**, 204, 525-530	14

1625	Patterning bio-molecules for cell attachment at single cell levels in PDMS microfluidic chips. **2009**, 86, 1462-1464		25
1624	Microfluidics and multielectrode array-compatible organotypic slice culture method. **2009**, 178, 59-64		52
1623	Influences of heating temperature on mechanical properties of polydimethylsiloxane. **2009**, 151, 42-45		127
1622	Hydrodynamic focusing studies in microreactors using voltammetric analysis: Theory and experiment. *Chemical Engineering Journal*, **2009**, 149, 428-434	14.7	3
1621	Patterning of biomolecules on a poly(epsilon-caprolactone) film surface functionalized by ion implantation. **2009**, 74, 375-9		11
1620	Probing the diffusion of vacuum ultraviolet (≠ 172 nm) induced oxidants by nanoparticles immobilization. **2009**, 255, 9817-9821		2
1619	Spatial control of cellular adhesion using photo-crosslinked micropatterned polyelectrolyte multilayer films. **2009**, 30, 2209-18		77
1618	Electrochemical desorption of self-assembled monolayers for engineering cellular tissues. **2009**, 30, 3573-9		126
1617	Physical approaches for fabrication of organized nanostructure of resilin-mimetic elastic protein rec1-resilin. **2009**, 30, 4868-76		35
1616	A microfluidic electrochemical device for high sensitivity biosensing: detection of nanomolar hydrogen peroxide. **2009**, 11, 819-822		59
1615	Synchrotron PES and NEXAFS studies of self-assembled aromatic thiol monolayers on Au(1 1 1). **2009**, 172, 54-63		12
1614	Combining nanosurface chemistry and microfluidics for molecular analysis and cell biology. **2009**, 650, 98-105		40
1613	Engineering high-density endothelial cell monolayers on soft substrates. **2009**, 5, 2013-24		23
1612	Different sensitivity of human endothelial cells, smooth muscle cells and fibroblasts to topography in the nano-micro range. **2009**, 5, 2460-6		226
1611	Patterned Au/poly(dimethylsiloxane) substrate fabricated by chemical plating coupled with electrochemical etching for cell patterning. **2009**, 25, 10402-7		45
1610	Microengineered platforms for cell mechanobiology. *Annual Review of Biomedical Engineering*, **2009**, 11, 203-33	12	317
1609	Surface chemical modification of poly(dimethylsiloxane)-based biomimetic materials: oil-repellent surfaces. **2009**, 1, 2636-44		41
1608	Morphological transitions of liquid droplets on circular surface domains. **2009**, 25, 13493-502		6

1607	Patterning discrete stem cell culture environments via localized self-assembled monolayer replacement. **2009**, 25, 12825-34		44
1606	Micromachined hydrogel stamper for soft printing of biomolecules with adjustable feature dimensions. **2009**, 81, 4551-4		2
1605	Engineering transfer of micro- and nanometer-scale features by surface energy modification. **2009**, 25, 7025-31		22
1604	Nanoimprinted thin films of reactive, azlactone-containing polymers: combining methods for the topographic patterning of cell substrates with opportunities for facile post-fabrication chemical functionalization. **2009**, 10, 994-1003		21
1603	Cell attachment behavior on solid and fluid substrates exhibiting spatial patterns of physical properties. **2009**, 25, 6992-6		19
1602	Micropatterning of proteins and mammalian cells on indium tin oxide. **2009**, 1, 2592-601		51
1601	Culturing aerobic and anaerobic bacteria and mammalian cells with a microfluidic differential oxygenator. **2009**, 81, 5918-24		94
1600	Detecting cytokine release from single T-cells. **2009**, 81, 8150-6		83
1599	Engineered microenvironments for controlled stem cell differentiation. **2009**, 15, 205-19		370
1598	Cell-shape regulation of smooth muscle cell proliferation. *Biophysical Journal*, **2009**, 96, 3423-32	2.9	143
1597	A chip-to-chip nanoliter microfluidic dispenser. *Lab on A Chip*, **2009**, 9, 1831-5	7.2	37
1596	High Throughput Screening Using Microfluidics. **2008**, 241-269		
1595	Growth cone 3-D morphology is modified by distinct micropatterned adhesion substrates. **2009**, 8, 161-8		11
1594	Adhesion molecule-modified biomaterials for neural tissue engineering. **2009**, 2, 6		71
1593	TiO2-catalyzed photodegradation of porphyrins: mechanistic studies and application in monolayer photolithography. **2009**, 25, 5398-403		10
1592	Thickness-dependent mechanical properties of polydimethylsiloxane membranes. **2009**, 19, 035028		207
1591	Integrating sensing hydrogel microstructures into micropatterned hepatocellular cocultures. **2009**, 25, 3880-6		44
1590	Microwave dielectric heating of drops in microfluidic devices. *Lab on A Chip*, **2009**, 9, 1701-6	7.2	69

1589	Microfabricated curtains for controlled cell seeding in high throughput microfluidic systems. *Lab on A Chip*, **2009**, 9, 1756-62	7.2	11
1588	Simultaneous generation of chemical concentration and mechanical shear stress gradients using microfluidic osmotic flow comparable to interstitial flow. *Lab on A Chip*, **2009**, 9, 2194-202	7.2	66
1587	Surface topography induces fibroblast adhesion on intrinsically nonadhesive poly(ethylene glycol) substrates. **2009**, 10, 2795-801		86
1586	Rapid switching of chemical signals in microfluidic devices. *Lab on A Chip*, **2009**, 9, 3059-65	7.2	22
1585	A 1.5 microL microbial fuel cell for on-chip bioelectricity generation. *Lab on A Chip*, **2009**, 9, 3076-81	7.2	165
1584	Fabrication of reversibly adhesive fluidic devices using magnetism. *Lab on A Chip*, **2009**, 9, 3016-9	7.2	24
1583	A new USP Class VI-compliant substrate for manufacturing disposable microfluidic devices. *Lab on A Chip*, **2009**, 9, 870-6	7.2	29
1582	Tapered microfluidic chip for the study of biochemical and mechanical response at subcellular level of endothelial cells to shear flow. *Lab on A Chip*, **2009**, 9, 1403-11	7.2	49
1581	Living-cell microarrays. *Annual Review of Biomedical Engineering*, **2009**, 11, 235-57	12	117
1580	Chemotaxis. **2009**,		7
1579	Invited Review Article: Review of centrifugal microfluidic and bio-optical disks. **2009**, 80, 101101		76
1578	CO2 and compressive immobilization of C. elegans on-chip. *Lab on A Chip*, **2009**, 9, 151-7	7.2	117
1577	PDMS- and Silver-Ball-Based Flexible Multichannel Surface Electrode: Fabrication and Application in Nerve Conduction Study on Patients With Diabetic Polyneuropathy. **2009**, 9, 625-632		11
1576	From the cellular perspective: exploring differences in the cellular baseline in macroscale and microfluidic cultures. **2009**, 1, 182-95		99
1575	Elongation and migration of single DNA molecules in microchannels using oscillatory shear flows. *Lab on A Chip*, **2009**, 9, 2348-55	7.2	66
1574	A fluidic device to study directional angiogenesis in complex tissue and organ culture models. *Lab on A Chip*, **2009**, 9, 529-35	7.2	42
1573	Computer-aided design for microfluidic chips based on multilayer soft lithography. **2009**,		32
1572	Microfabricating high-aspect-ratio structures in polyurethane-methacrylate (PUMA) disposable microfluidic devices. *Lab on A Chip*, **2009**, 9, 1951-6	7.2	24

1571	Dynamics of individual polymers using microfluidic based microcurvilinear flow. *Lab on A Chip*, **2009**, 9, 2339-47	7.2	6
1570	Optimisation and analysis of microreactor designs for microfluidic gradient generation using a purpose built optical detection system for entire chip imaging. *Lab on A Chip*, **2009**, 9, 1882-9	7.2	14
1569	Textural guidance cues for controlling process outgrowth of mammalian neurons. *Lab on A Chip*, **2009**, 9, 122-31	7.2	66
1568	Nanoimprint Lithography Materials Development for Semiconductor Device Fabrication. **2009**, 39, 155-180		117
1567	Microfluidic system for controlled gelation of a thermally reversible hydrogel. **2009**, 3, 195-201		4
1566	Application of cell traction force microscopy for cell biology research. **2009**, 586, 301-13		14
1565	Hard top soft bottom microfluidic devices for cell culture and chemical analysis. **2009**, 81, 3714-22		92
1564	Resource patch formation and exploitation throughout the marine microbial food web. **2009**, 173, E15-29		62
1563	Surface Modification of Polydimethylsiloxane Substrates with Nonfouling Poly(Poly(ethylene glycol)methacrylate) Brushes. **2009**, 279, 103-109		32
1562	Controlled Wrinkling as a Novel Method for the Fabrication of Patterned Surfaces. **2009**, 75-99		28
1561	Facile method for selective immobilization of biomolecules on plastic surfaces. **2009**, 25, 11289-94		30
1560	Surface Chemical Patterning for Controlled Cell Adhesion. **2009**,		
1559	Assays for eukaryotic cell chemotaxis. **2009**, 12, 580-8		17
1558	Acoustic cavity transducers for the manipulation of cells and biomolecules. **2010**,		
1557	Formation of Uniform Plugs and Monodispersed Droplets for Viscoelastic Fluid Flow in Microchannels. **2010**,		1
1556	Nanofabrication of nonfouling surfaces for micropatterning of cell and microtissue. *Molecules*, **2010**, 15, 5525-46	4.8	23
1555	Nanotechnologies for Peripheral Nerve Regeneration. **2010**, 185-208		
1554	MICROPATTERNED POLYMER STRUCTURES FOR CELL AND TISSUE ENGINEERING. **2010**, 101-120		

1553	Window on a microworld: simple microfluidic systems for studying microbial transport in porous media. **2010**,		8
1552	Molding a silver nanoparticle template on polydimethylsiloxane to efficiently capture mammalian cells. **2010**, 26, 2924-9		21
1551	Electrochemical cleavage of azo linkage for site-selective immobilization and cell patterning. **2010**, 46, 3863-5		10
1550	Dynamic control over cell adhesive properties using molecular-based surface engineering strategies. **2010**, 39, 354-78		191
1549	Microfluidic platforms for single-cell analysis. *Annual Review of Biomedical Engineering*, **2010**, 12, 187-2012		258
1548	Alterations in gene expression of human vascular endothelial cells associated with nanotopographic cues. **2010**, 31, 8882-8		61
1547	Reliable addition of reagents into microfluidic droplets. *Microfluidics and Nanofluidics*, **2010**, 8, 409-416	2.8	32
1546	Efficient dielectrophoretic patterning of embryonic stem cells in energy landscapes defined by hydrogel geometries. **2010**, 38, 3777-88		38
1545	From cellular mechanotransduction to biologically inspired engineering: 2009 Pritzker Award Lecture, BMES Annual Meeting October 10, 2009. **2010**, 38, 1148-61		75
1544	Fabrication of metallic micromolds by laser and electro-discharge micromachining. **2010**, 16, 477-485		13
1543	Increased poly(dimethylsiloxane) stiffness improves viability and morphology of mouse fibroblast cells. **2010**, 4, 230-236		72
1542	Tape underlayment rotary-node (TURN) valves for simple on-chip microfluidic flow control. **2010**, 12, 135-44		12
1541	Growth of primary embryo cells in a microculture system. **2010**, 12, 253-61		7
1540	A microfluidic device for depositing and addressing two cell populations with intercellular population communication capability. **2010**, 12, 275-82		15
1539	Enhanced differentiation of retinal progenitor cells using microfabricated topographical cues. **2010** , 12, 363-9		61
1538	A computational and experimental study inside microfluidic systems: the role of shear stress and flow recirculation in cell docking. **2010**, 12, 619-26		28
1537	Alginate-based microfluidic system for tumor spheroid formation and anticancer agent screening. **2010**, 12, 647-54		58
1536	Precise cell patterning using cytophobic self-assembled monolayer deposited on top of semi-transparent gold. **2010**, 12, 935-48		14

1535	Microfluidic device to study arterial shear-mediated platelet-surface interactions in whole blood: reduced sample volumes and well-characterised protein surfaces. **2010**, 12, 987-1000	35
1534	Towards monitoring real-time cellular response using an integrated microfluidics-matrix assisted laser desorption ionisation/nanoelectrospray ionisation-ion mobility-mass spectrometry platform. **2010**, 4, 416-27	23
1533	Engineered materials and the cellular microenvironment: a strengthening interface between cell biology and bioengineering. **2010**, 20, 705-14	53
1532	Moth olfactory trichoid sensilla exhibit nanoscale-level heterogeneity in surface lipid properties. **2010**, 39, 1-16	26
1531	Micro-scale and microfluidic devices for neurobiology. **2010**, 20, 640-7	79
1530	Heterotypic interaction of fibroblasts and endothelial cells on restricted area. **2010**, 92, 733-45	8
1529	Microfluidic impedance-based flow cytometry. **2010**, 77, 648-66	174
1528	Microfluidic gradient platforms for controlling cellular behavior. **2010**, 31, 3014-27	73
1527	Detachment Lithography of Photosensitive Polymers: A Route to Fabricating Three-Dimensional Structures. **2010**, 20, 289-295	37
1526	Multiplexed protein patterns on a photosensitive hydrophilic polymer matrix. **2010**, 22, 1242-6	19
1525	Light-scribing emissive patterns on polymer films through a light-induced depletion of phosphorescence quenching. **2010**, 22, 3553-7	3
1524	Rapid nanoimprinting of doped silk films for enhanced fluorescent emission. **2010**, 22, 4596-9	45
1523	Electric field controlled electrospray deposition for precise particle pattern and cell pattern formation. **2010**, 56, 2607-2621	20
1522	Biomimetic Interface. **2010**, 103-128	
1521	Surface chemistry and cell biological tools for the analysis of cell adhesion and migration. **2010**, 11, 745-53, 730	31
1520	Microfluidic reactor for continuous cultivation of Saccharomyces cerevisiae. **2010**, 26, 1259-70	44
1519	Fibrillar peptide gels in biotechnology and biomedicine. **2010**, 94, 49-59	123
1518	Multicellular tumor spheroids: an underestimated tool is catching up again. **2010**, 148, 3-15	1144

1517	Microtechnology meets systems biology: the small molecules of metabolome as next big targets. **2010**, 149, 33-51	18
1516	Formation and structural transition of molecular self-assembly on solid surface investigated by scanning tunneling microscopy. **2010**, 70, 169-187	28
1515	Nanoscale patterning through self-assembly of hydrophilic block copolymers with´one chain end constrained to surface. **2010**, 51, 1771-1778	20
1514	Replication of cancer cells using soft lithography bioimprint technique. **2010**, 87, 699-703	12
1513	Improving pore exposure in mesoporous silica films for mechanized control of the pores. **2010**, 132, 435-441	24
1512	Dense type I collagen matrices that support cellular remodeling and microfabrication for studies of tumor angiogenesis and vasculogenesis in vitro. **2010**, 31, 8596-607	243
1511	Micro-patterning of phosphorylcholine-based polymers in a microfluidic channel. **2010**, 149, 177-183	13
1510	Transverse acoustic trapping using a gaussian focused ultrasound. **2010**, 36, 350-5	53
1509	The interaction of cells and bacteria with surfaces structured at the nanometre scale. **2010**, 6, 3824-46	619
1508	Regulation of keratinocyte signaling and function via changes in epidermal growth factor presentation. **2010**, 6, 3415-25	24
1507	A matrix micropatterning platform for cell localization and stem cell fate determination. **2010**, 6, 4614-21	43
1506	Controlled-size embryoid body formation in concave microwell arrays. **2010**, 31, 4296-303	202
1505	High-resolution X-ray photoelectron spectroscopy in studies of self-assembled organic monolayers. **2010**, 178-179, 380-393	122
1504	Live cell flattening - traditional and novel approaches. **2010**, 3, 9	6
1503	Replication of the 3D architecture of tissues. **2010**, 13, 32-41	41
1502	Kinetics of RPECVD Organosilicon Polymer Post-treatment in a N2/O2 Microwave Plasma Remote Afterglow. **2010**, 7, 775-784	8
1501	Liposome and lipid bilayer arrays towards biosensing applications. **2010**, 6, 2481-97	175
1500	Models at the single cell level. **2010**, 2, 34-48	10

1499	Effect of processing parameters, antistiction coatings, and polymer type when injection molding microfeatures. **2010**, 50, 411-419	15
1498	Increased cell migration and plasticity in Nrf2-deficient cancer cell lines. **2010**, 29, 3703-14	73
1497	A defined glycosaminoglycan-binding substratum for human pluripotent stem cells. **2010**, 7, 989-94	214
1496	Investigation of bacterial chemotaxis in flow-based microfluidic devices. **2010**, 5, 864-72	48
1495	Spatial organization and signal transduction at intercellular junctions. **2010**, 11, 342-52	98
1494	Biomimetic design of artificial micro-vasculatures for tissue engineering. **2010**, 38 Suppl 1, 67-79	15
1493	Effective dynamics using conditional expectations. **2010**, 23, 2131-2163	52
1492	THE ARCHITECTURE OF THE CASSINI DIVISION. **2010**, 139, 228-251	42
1491	Micropatterning as a tool to decipher cell morphogenesis and functions. **2010**, 123, 4201-13	500
1490	Design and implementation of a feedback control strategy for IRMA, a novel synthetic gene regulatory network. **2010**,	2
1489	Inkjet-based biopatterning of bone morphogenetic protein-2 to spatially control calvarial bone formation. **2010**, 16, 1749-59	94
1488	Multiscale fabrication of a transparent circulation type blood vessel simulator. **2010**, 4, 46505	10
1487	Integration of plasma-assisted surface chemical modification, soft lithography, and protein surface activation for single-cell patterning. **2010**, 97, 043705	8
1486	PEGylated Gold Nanoparticles Functionalized with ĐCyclodextrin Inclusion Complexes: Towards Metal Nanoparticle - Polymer - Carbohydrate Cluster Biohybrid Materials. **2010**, 63, 1245	41
1485	Advances in microfluidics for drug discovery. **2010**, 5, 1081-94	43
1484	Single-cell-based measurement of supraphysiological thermal injury in carcinoma cells on a microchip. **2010**,	
1483	Challenging nature's monopoly on the creation of well-defined nanoparticles. **2010**, 5, 633-9	22
1482	Self-Assembled Monolayers as Dynamic Model Substrates for Cell Biology. **2010**, 103-134	1

1481	A polarised population of dynamic microtubules mediates homeostatic length control in animal cells. **2010**, 8, e1000542		53
1480	Use of the red blood cell as a simple drug target and diagnostic by manipulating and monitoring its ability to release adenosine triphosphate (ATP). **2010**, 82, 1623-1634		4
1479	Optofluidics. **2010**, 241-251		
1478	Integration of Microcoil Magnetic Manipulation with High-Sensitivity Complementary Metal□Oxide□Semiconductor Photosensor Detection in Bio-Analyses. **2010**, 49, 04DL06		
1477	Fabrication of a SU-8-based polymer-enclosed channel with a penetrating UV/ozone-modified interior surface for electrokinetic separation of proteins. **2010**, 20, 115031		13
1476	Sliding-Graft Interpenetrating Polymer Networks from Simultaneous □Click Chemistry□ and Atom Transfer Radical Polymerization. **2010**, 43, 9761-9770		48
1475	Micropatterned Hydrogels for Stem Cell Culture. **2010**, 119-152		3
1474	Nanotechnology Usages for Cellular Adhesion and Traction Forces. **2010**, 177-200		1
1473	Microfluidics for bacterial chemotaxis. **2010**, 2, 604-29		120
1472	Wenig Gift □viel Kontakt. **2010**, 58, 1049-1051		
1471	Nanopatterned Surfaces for Bio-Detection. **2010**, 43, 1556-1571		11
1470	Adhesion based detection, sorting and enrichment of cells in microfluidic Lab-on-Chip devices. *Lab on A Chip*, **2010**, 10, 3043-53	7.2	128
1469	Engineering hydrogels as extracellular matrix mimics. **2010**, 5, 469-84		595
1468	Orthopedic Interface Tissue Engineering: Building the Bridge to Integrated Musculoskeletal Tissue Systems. **2010**, 589-611		1
1467	Probing interfacial interactions of bacteria on metal nanoparticles and substrates with different surface properties. **2010**, 36, 549-56		21
1466	Biodegradable PEG Hydrogels Cross-linkedUsing Biotin-Avidin Interactions. **2010**, 63, 1413		9
1465	Nanotopography/mechanical induction of stem-cell differentiation. **2010**, 98, 241-94		58
1464	Hybrid strategies in nanolithography. **2010**, 73, 036501		144

1463	Towards the creation of decellularized organ constructs using irreversible electroporation and active mechanical perfusion. **2010**, 9, 83	66
1462	Applying AFM-based nanofabrication for measuring the thickness of nanopatterns: the role of head groups in the vertical self-assembly of omega-functionalized n-alkanethiols. **2010**, 26, 3040-9	16
1461	A multilayered approach to complex surface patterning. **2010**, 26, 3731-8	11
1460	Cofabrication: a strategy for building multicomponent microsystems. **2010**, 43, 518-28	49
1459	Interpenetrating network hydrogels via simultaneous "click chemistry" and atom transfer radical polymerization. **2010**, 11, 1810-7	46
1458	Controlled assembly for well-defined 3D bioarchitecture using two active enzymes. **2010**, 4, 1580-6	23
1457	Tailored electroactive and quantitative ligand density microarrays applied to stem cell differentiation. **2010**, 132, 2614-21	51
1456	In vitro model on glass surfaces for complex interactions between different types of cells. **2010**, 26, 17790-4	21
1455	Multilevel self-aligned microcontact printing system. **2010**, 26, 16163-70	6
1454	Synthesis and Assembly Behavior of Heteronucleobase-Functionalized Poly(ε-caprolactone). **2010**, 43, 1245-1252	79
1453	Lensfree holographic imaging of antibody microarrays for high-throughput detection of leukocyte numbers and function. **2010**, 82, 3736-44	78
1452	Hydrodynamic trap for single particles and cells. **2010**, 96, 224101	85
1451	Revealing different bonding modes of self-assembled octadecylphosphonic acid monolayers on oxides by time-of-flight secondary ion mass spectrometry: silicon vs aluminum. **2010**, 82, 3371-6	39
1450	Uniform patterning of sub-50-nm-scale Au nanostructures on insulating solid substrate via dip-pen nanolithography. **2010**, 26, 1507-11	4
1449	Protein micropatterns: A direct printing protocol using deep UVs. **2010**, 97, 133-46	84
1448	Reconstituting organ-level lung functions on a chip. **2010**, 328, 1662-8	2416
1447	Biofabrication of a three-dimensional liver micro-organ as an in vitro drug metabolism model. **2010**, 2, 045004	176
1446	Addressable Cell Microarrays via Switchable Superhydrophobic Surfaces. **2010**, 24, 1023-1030	4

1445	Microfluidic local perfusion chambers for the visualization and manipulation of synapses. **2010**, 66, 57-68		210
1444	Microfluidic stochastic confinement enhances analysis of rare cells by isolating cells and creating high density environments for control of diffusible signals. **2010**, 39, 974-84		84
1443	Fundamentals of microfluidic cell culture in controlled microenvironments. **2010**, 39, 1036-48		422
1442	Application of poly(amidoamine) dendrimers for use in bionanomotor systems. **2010**, 26, 6079-82		5
1441	Enabling individualized therapy through nanotechnology. **2010**, 62, 57-89		151
1440	Cell Traction Forces (CTFs) and CTF Microscopy Applications in Musculoskeletal Research. **2010**, 20, 106-109		5
1439	Complementary electrowetting devices on plasma-treated fluoropolymer surfaces. **2010**, 26, 9474-83		15
1438	Multicomponent protein patterning of material surfaces. **2010**, 20, 7322		52
1437	Fabrication of Biodegradable Polymeric Micro-Analytical Devices Using a Laser Direct Writing Method. **2010**, 136, 53-58		1
1436	Patterning of polystyrene by scanning electrochemical microscopy. Biological applications to cell adhesion. **2010**, 26, 17348-56		30
1435	Complex Macromolecular Systems I. **2010**,		6
1434	Fabrication of micro-nano hybrid patterns on a solid surface. **2010**, 26, 492-7		18
1433	Cell and Organ Printing. **2010**,		8
1432	Thickness and elastic modulus of plasma treated PDMS silica-like surface layer. **2010**, 26, 3372-5		129
1431	Cytoskeleton Methods and Protocols. **2010**,		1
1430	Biomaterials as Stem Cell Niche. **2010**,		1
1429	Lifespan-on-a-chip: microfluidic chambers for performing lifelong observation of C. elegans. *Lab on A Chip*, **2010**, 10, 589-97	7.2	170
1428	Building and manipulating neural pathways with microfluidics. *Lab on A Chip*, **2010**, 10, 999-1004	7.2	66

1427	A single-molecule enzymatic assay in a directly accessible femtoliter droplet array. *Lab on A Chip*, **2010**, 10, 3355-62	7.2	132
1426	A microfluidic microprocessor: controlling biomimetic containers and cells using hybrid integrated circuit/microfluidic chips. *Lab on A Chip*, **2010**, 10, 2937-43	7.2	20
1425	Embellishment of microfluidic devices via femtosecond laser micronanofabrication for chip functionalization. *Lab on A Chip*, **2010**, 10, 1993-6	7.2	65
1424	Live Cell Imaging. **2010**,		10
1423	Stamp wound assay for studying coupled cell migration and cell debris clearance. **2010**, 26, 16672-6		17
1422	Microengineering in Biotechnology. **2010**,		3
1421	Advances in Regenerative Medicine: Role of Nanotechnology, and Engineering Principles. **2010**,		3
1420	High-content screening in microfluidic devices. **2010**, 5, 715-20		12
1419	Manipulation and isolation of single cells and nuclei. **2010**, 98, 79-96		11
1418	Collection of Gaseous and Aerosolized Samples Using Microfluidic Devices With Gas–liquid Interfaces. **2010**, 10, 952-959		6
1417	Advancing stem cell research with microtechnologies: opportunities and challenges. **2010**, 2, 305-25		33
1416	Colloid probe AFM study of thermal collapse and protein interactions of poly(N-isopropylacrylamide) coatings. **2010**, 6, 2657		34
1415	Design principles for polymers as substratum for adherent cells. **2010**, 20, 8789		56
1414	Study of Na+/H+ exchange-mediated pHi regulations in neuronal soma and neurites in compartmentalized microfluidic devices. **2010**, 2, 58-64		12
1413	Micropatterned surfaces: techniques and applications in cell biology. **2010**, 5, 569-81		27
1412	Orchestrated structure evolution: accelerating direct-write nanomanufacturing by combining top-down patterning with bottom-up growth. **2010**, 21, 195306		6
1411	Microfluidic contact printing: a versatile printing platform for patterning biomolecules on hydrogel substrates. **2010**, 6, 2238		18
1410	The molecular surface conformation of surface-tethered polyelectrolytes on PDMS surfaces. **2010**,		6

1409	The network formation assay: a spatially standardized neurite outgrowth analytical display for neurotoxicity screening. *Lab on A Chip*, **2010**, 10, 701-9	7.2	92
1408	DEVELOPMENT IN MICROREACTOR TECHNOLOGY FOR NANOPARTICLE SYNTHESIS. **2010**, 09, 93-112		19
1407	Short-term molecular polarization of cells on symmetric and asymmetric micropatterns. **2010**, 6, 3257-3268		16
1406	Microengineering hydrogels for stem cell bioengineering and tissue regeneration. **2010**, 15, 440-448		21
1405	High throughput assembly of spatially controlled 3D cell clusters on a micro/nanoplatform. *Lab on A Chip*, **2010**, 10, 775-82	7.2	50
1404	Patterning the differentiation of C2C12 skeletal myoblasts. **2011**, 3, 897-909		125
1403	Manipulating location, polarity, and outgrowth length of neuron-like pheochromocytoma (PC-12) cells on patterned organic electrode arrays. *Lab on A Chip*, **2011**, 11, 3674-80	7.2	36
1402	High fidelity neuronal networks formed by plasma masking with a bilayer membrane: analysis of neurodegenerative and neuroprotective processes. *Lab on A Chip*, **2011**, 11, 2763-71	7.2	36
1401	Micropatterning of bioactive heparin-based hydrogels. **2011**, 7, 3133-3140		31
1400	Formation of self-assembled periodic grooves via thermal drawing lithography for alignment layers in liquid crystal devices. **2011**, 7, 270-274		5
1399	Hierarchical Micro- and Nanoscale Structures on Surfaces Produced Using a One-Step Pattern Transfer Process. **2011**, 2, 289-294		9
1398	A low-energy-consumption electroactive valveless hydrogel micropump for long-term biomedical applications. *Lab on A Chip*, **2011**, 11, 2910-5	7.2	32
1397	Large-area protein patterns generated by ordered binary colloidal assemblies as templates. **2011**, 5, 3542-51		33
1396	Polyelectrolyte multilayers generated in a microfluidic device with pH gradients direct adhesion and movement of cells. *Lab on A Chip*, **2011**, 11, 3326-35	7.2	34
1395	Surface modification of 2D/3D SU-8 patterns with a swelling□deswelling method. **2011**, 7, 2989		13
1394	Benchtop micromolding of polystyrene by soft lithography. *Lab on A Chip*, **2011**, 11, 3089-97	7.2	64
1393	Tools for micropatterning epithelial cells into microcolonies on transwell filter substrates. *Lab on A Chip*, **2011**, 11, 3440-8	7.2	12
1392	Direct fabrication of multi-tier structures in dielectric materials for dual damascene processing. **2011**,		

1391	Measurement of body volume of live C. elegans by microchip. **2011**,		
1390	Bioengineering single crystal growth. **2011**, 133, 1658-61		11
1389	Integrating top-down and self-assembly in the fabrication of peptide and protein-based biomedical materials. **2011**, 40, 4563-77		104
1388	A route to nanoscopic materials via sequential infiltration synthesis on block copolymer templates. **2011**, 5, 4600-6		209
1387	DNA Nanotechnology. **2011**,		7
1386	Entrainment of a population of synthetic genetic oscillators. **2011**, 333, 1315-1319		158
1385	Carboxybetaine methacrylate polymers offer robust, long-term protection against cell adhesion. **2011**, 27, 10800-4		19
1384	Integrating silicon nanowire field effect transistor, microfluidics and air sampling techniques for real-time monitoring biological aerosols. **2011**, 45, 7473-80		59
1383	Microfluidic devices constructed by a marker pen on a silica gel plate for multiplex assays. **2011**, 83, 3596-9		21
1382	Using self-polymerized dopamine to modify the antifouling property of oligo(ethylene glycol) self-assembled monolayers and its application in cell patterning. **2011**, 27, 5709-12		49
1381	Spatial control of cell fate using synthetic surfaces to potentiate TGF-beta signaling. **2011**, 108, 11745-50		44
1380	Monitoring a reaction at submillisecond resolution in picoliter volumes. **2011**, 83, 1462-8		43
1379	Polymer nanogels grafted from nanopatterned surfaces studied by AFM force spectroscopy. **2011**, 27, 8956-66		3
1378	Bridging the gap between physicochemistry and interpretation prevalent in cell-surface interactions. **2011**, 111, 2900-36		67
1377	Stable, biocompatible lipid vesicle generation by solvent extraction-based droplet microfluidics. **2011**, 5, 44113-4411312		110
1376	Regulation of cell adhesion strength by peripheral focal adhesion distribution. *Biophysical Journal*, **2011**, 101, 2903-11	2.9	51
1375	Microfluidics: Fabrication, Droplets, Bubbles and Nanofluids Synthesis. **2011**, 171-294		3
1374	Cells in microfluidics. **2011**, 304, 295-321		17

1373	Using Lab-on-a-Chip Technologies for Stem Cell Biology. **2011**, 483-498		2
1372	Nanowire biosensors for label-free, real-time, ultrasensitive protein detection. **2011**, 790, 223-37		29
1371	Microscale technologies and modular approaches for tissue engineering: moving toward the fabrication of complex functional structures. **2011**, 5, 4258-64		56
1370	Microfluidic Channels Formed by Collapse of Soft Stamp. **2011**, 1, 3-10		2
1369	Synapse microarray identification of small molecules that enhance synaptogenesis. *Nature Communications*, **2011**, 2, 510	17.4	83
1368	Multifunctional Polymer Based Structures for Human Tissues Reconstruction. **2011**, 91-112		1
1367	Surface interaction forces of cellulose nanocrystals grafted with thermoresponsive polymer brushes. **2011**, 12, 2788-96		67
1366	The photonic integration of non-solid media using optofluidics. **2011**, 5, 598-604		233
1365	Microfluidic platform for the study of Caenorhabditis elegans. **2011**, 304, 323-38		20
1364	Backscattering measurement from a single microdroplet. **2011**, 58, 874-9		6
1363	Flexible fabrication and applications of polymer nanochannels and nanoslits. **2011**, 40, 3677-702		87
1362	The effects of particle size, density and shape on margination of nanoparticles in microcirculation. **2011**, 22, 115101		168
1361	Controlled confinement of DNA at the nanoscale: nanofabrication and surface bio-functionalization. **2011**, 749, 169-85		8
1360	MEMS Sensors and Microsystems for Cell Mechanobiology. **2011**, 21, 54002-54012		55
1359	Nanopatterning by block copolymer micelle nanolithography and bioinspired applications. **2011**, 6, MR1-12		102
1358	Optimization of protein patterns for neuronal cell culture applications. **2011**, 6, 105		2
1357	Biomimetic postcapillary expansions for enhancing rare blood cell separation on a microfluidic chip. *Lab on A Chip*, **2011**, 11, 2941-7	7.2	42
1356	Scanning Probe-Based Lithography for Production of Biological and Organic Nanostructures on Surfaces. **2011**, 1-34		1

1355	Stem Cells & Regenerative Medicine. **2011**,		5
1354	Amorphous and Poorly Ordered Polymers. **2011**, 223-256		
1353	Organized Polymeric Materials. **2011**, 257-294		
1352	Microfluidics for synthetic biology: from design to execution. **2011**, 497, 295-372		83
1351	Cell-Based Microarrays. **2011**,		2
1350	Ultrafast laser inscription: science today, technology tomorrow. **2011**,		
1349	Fabrication of circular microfluidic channels by combining mechanical micromilling and soft lithography. *Lab on A Chip*, **2011**, 11, 1550-5	7.2	104
1348	Fast microfluidic temperature control for high resolution live cell imaging. *Lab on A Chip*, **2011**, 11, 484-9	7.2	42
1347	1-Million droplet array with wide-field fluorescence imaging for digital PCR. *Lab on A Chip*, **2011**, 11, 3838-45	7.2	232
1346	Nanochannel confinement: DNA stretch approaching full contour length. *Lab on A Chip*, **2011**, 11, 1721-9	7.2	127
1345	Thermoelectric method for sequencing DNA. *Lab on A Chip*, **2011**, 11, 1761-9	7.2	18
1344	Passive recruitment of circulating leukocytes into capillary sprouts from existing capillaries in a microfluidic system. *Lab on A Chip*, **2011**, 11, 1924-32	7.2	20
1343	On-demand controlled release of docetaxel from a battery-less MEMS drug delivery device. *Lab on A Chip*, **2011**, 11, 2744-52	7.2	89
1342	Microfluidic generation of haptotactic gradients through 3D collagen gels for enhanced neurite growth. **2011**, 28, 2377-87		35
1341	Traffic of leukocytes in microfluidic channels with rectangular and rounded cross-sections. *Lab on A Chip*, **2011**, 11, 3231-40	7.2	35
1340	Rapid prototyping polymers for microfluidic devices and high pressure injections. *Lab on A Chip*, **2011**, 11, 3752-65	7.2	280
1339	Thermoset polyester droplet-based microfluidic devices for high frequency generation. *Lab on A Chip*, **2011**, 11, 4108-12	7.2	14
1338	Biological Microarrays. **2011**,		1

1337 Progress and prospects for stem cell engineering. **2011**, 2, 479-502 29

1336 Micro- and Nanotechnology in Tissue Engineering. **2011**, 3-29 6

1335 Miniaturization of biological assays -- overview on microwell devices for single-cell analyses. **2011**, 1810, 308-16 107

1334 Artificial scaffolds and mesenchymal stem cells for hard tissues. **2012**, 126, 153-94 9

1333 Rapid prototyping of arrayed microfluidic systems in polystyrene for cell-based assays. **2011**, 83, 1408-17 127

1332 Optofluidic waveguides for reconfigurable photonic systems. **2011**, 19, 8602-9 118

1331 MEMS Lithography and Micromachining Techniques. **2011**, 667-753 3

1330 Engineering tissue with BioMEMS. **2011**, 2, 28-34 10

1329 Nanomedicine for cancer: lipid-based nanostructures for drug delivery and monitoring. **2011**, 44, 1080-93 128

1328 A self-assembled monolayer-based micropatterned array for controlling cell adhesion and protein adsorption. **2011**, 108, 1194-202 19

1327 From cleanroom to desktop: emerging micro-nanofabrication technology for biomedical applications. **2011**, 39, 600-20 55

1326 Micropatterned aptasensors for continuous monitoring of cytokine release from human leukocytes. **2011**, 83, 8286-92 83

1325 Cell Adhesion and Spreading on an Intrinsically Anti-Adhesive PEG Biomaterial. **2011**, 1

1324 Circulation Type Blood Vessel Simulator Made by Microfabrication. **2011**,

1323 Emerging Trends in Tissue Engineering. **2011**, 251-263 2

1322 The Dynamical Systems Properties of the HOG Signaling Cascade. **2011**, 2011, 930940 19

1321 Hydrogel-electrospun fiber mat composite coatings for neural prostheses. **2011**, 4, 2 26

1320 Evaluation of multidrug efflux pump inhibitors by a new method using microfluidic channels. **2011**, 6, e18547 70

1319	Self-organizing circuit assembly through spatiotemporally coordinated neuronal migration within geometric constraints. **2011**, 6, e28156		17
1318	Paxillin mediates sensing of physical cues and regulates directional cell motility by controlling lamellipodia positioning. **2011**, 6, e28303		33
1317	Artificial hematopoietic stem cell niche: bioscaffolds to microfluidics to mathematical simulations. **2011**, 11, 1599-605		2
1316	Flux Control Analysis and Stoichiometric Network Modeling: Basic Principles and Industrial Applications. **2011**, 185-220		6
1315	Biofunctionalized Surfaces Controlling Stem Cell Fate Decisions. **2011**, 267-302		
1314	Applications of Controlled Macromolecular Architectures to Lithography. **2011**, 2295-2330		1
1313	Solvent-Assisted Molding. **2011**, 43-56		
1312	Soft Lithography and Variants. **2011**, 57-68		1
1311	From 3D cell culture to organs-on-chips. **2011**, 21, 745-54		1235
1310	Miniaturizing microbial fuel cells. **2011**, 29, 62-9		111
1309	Substrate-mediated nucleic acid delivery from self-assembled monolayers. **2011**, 29, 119-26		28
1308	A microfluidic capacitance sensor for fluid discrimination and characterization. **2011**, 172, 212-219		21
1307	Adjacent assembly of self-assembled monolayers for the construction of selective bio-platforms. **2011**, 159, 75-81		3
1306	Characterization of postfabricated parylene C coatings inside PDMS microdevices. **2011**, 160, 864-874		33
1305	Electrically modulated attachment and detachment of animal cells cultured on an optically transparent patterning electrode. **2011**, 111, 574-83		12
1304	Microfluidic tools for quantitative studies of eukaryotic chemotaxis. **2011**, 90, 811-6		26
1303	Multiplex digital PCR: breaking the one target per color barrier of quantitative PCR. *Lab on A Chip*, **2011**, 11, 2167-74	7.2	223
1302	Microfabricated particulate drug-delivery systems. **2011**, 6, 1477-87		22

1301	Chapter 24:Using Microfluidics, Real-time Imaging and Mathematical Modelling to study GPCR Signalling. **2011**, 469-488		
1300	Microfluidic image cytometry. **2011**, 706, 191-206		
1299	The effects of polymeric nanostructure shape on drug delivery. **2011**, 63, 1228-46		408
1298	Hot embossing for fabrication of a microfluidic 3D cell culture platform. **2011**, 13, 325-33		62
1297	M□ Microscope-based maskless micropatterning with dry film photoresist. **2011**, 13, 375-81		6
1296	A versatile valve-enabled microfluidic cell co-culture platform and demonstration of its applications to neurobiology and cancer biology. **2011**, 13, 539-48		90
1295	Nanoporous membrane-sealed microfluidic devices for improved cell viability. **2011**, 13, 955-61		6
1294	Single-cell-based measurement of supraphysiological thermal injury in human carcinoma cells utilizing a micropatterned hydrogel chip. **2011**, 17, 629-636		
1293	Analysis of sperm concentration and motility in a microfluidic device. *Microfluidics and Nanofluidics*, **2011**, 10, 59-67	2.8	41
1292	An investigation on the mechanism of droplet formation in a microfluidic T-junction. *Microfluidics and Nanofluidics*, **2011**, 11, 1-10	2.8	64
1291	Regulation of the matrix microenvironment for stem cell engineering and regenerative medicine. **2011**, 39, 1201-14		45
1290	Rapid isothermal substrate microfabrication of a biocompatible thermoplastic elastomer for cellular contact guidance. **2011**, 7, 2492-8		27
1289	Self-assembly of dies through electrostatic attraction: modelling of alignment forces and kinematics. **2011**, 6, 23-31		3
1288	One-dimensional ZnO nanostructures: Solution growth and functional properties. **2011**, 4, 1013-1098		1049
1287	Exposure of BALB/3T3 fibroblast cells to temporal concentration profile of toxicant inside microfluidic device. **2011**, 5, 214-219		9
1286	Characterization of long-term stability of hydrophilized PEG-grafted PDMS within different media for biotechnological and pharmaceutical applications. **2011**, 208, 1301-1307		26
1285	Microfluidic devices for bioapplications. **2011**, 7, 12-48		362
1284	Chemically functionalized surface patterning. **2011**, 7, 2273-89		72

1283	Programmable chemical gradient patterns by soft grayscale lithography. **2011**, 7, 3350-62	7
1282	Direct nanopatterning of silsesquioxane/poly(ethylene glycol) blends with high stability and nonfouling properties. **2011**, 11, 600-6	7
1281	Molding Micropatterns of Elasticity on PEG-Based Hydrogels to Control Cell Adhesion and Migration. **2011**, 13, B395-B404	17
1280	Patterning of YVO4:Eu3+ Luminescent Films by Soft Lithography. **2011**, 21, 456-463	77
1279	Fabrication of Multiscale Gradient Polymer Patterns by Direct Molding and Spatially Controlled Reflow. **2011**, 21, 1147-1153	11
1278	Calcination- and Etching-Free Photolithography of Inorganic Phosphor Films Consisting of Rare Earth Ion Doped Nanoparticles on Plastic Sheets. **2011**, 21, 4264-4269	16
1277	Protein tethering into multiscale geometries by covalent subtractive printing. **2011**, 23, 1550-3	12
1276	Surface chemical patterning for long-term single-cell culture. **2011**, 96, 507-12	12
1275	Computational and experimental studies of electrospray deposition process in pharmaceutical micro-pattern formation. **2011**, 66, 3836-3849	13
1274	Direct detection of acetylcholinesterase inhibitor binding with an enzyme-based surface plasmon resonance sensor. **2011**, 408, 212-9	45
1273	Cell patterning using molecular vapor deposition of self-assembled monolayers and lift-off technique. **2011**, 7, 1094-103	23
1272	The use of glass substrates with bi-functional silanes for designing micropatterned cell-secreted cytokine immunoassays. **2011**, 32, 5478-88	24
1271	Electrospun nanofibers as a tool for architecture control in engineered cardiac tissue. **2011**, 32, 5615-24	131
1270	Detection of changes in cell membrane structures using the Bioimprint technique. **2011**, 88, 1871-1874	2
1269	Patterning of SiO2 nanoparticle–PMMA polymer composite microstructures based on soft lithographic techniques. **2011**, 88, 939-944	18
1268	Bioassisted capture and release of nanoparticles on nanolithographed ZnO films. **2011**, 22, 275302	3
1267	Regulatory influence of scaffolds on cell behavior: how cells decode biomaterials. **2011**, 12, 151-9	34
1266	Disposable parallel poly(dimethylsiloxane) microbioreactor with integrated readout grid for germination screening of Aspergillus ochraceus. **2011**, 5, 14104	14

1247	Mechanobiology of platelets: techniques to study the role of fluid flow and platelet retraction forces at the micro- and nano-scale. **2011**, 12, 9009-30	21
1246	A nanocontact printing system for sub-100 nm aligned patterning. **2011**, 22, 285302	9
1245	Surface Modification of Polydimethylsiloxane Using Low Pressure Chemical Vapour Deposition of Poly-Chloro-p-Xylene. **2012**, 20, 129-142	2
1244	Chemotaxis of Mesenchymal Stem Cells in a Microfluidic Device. **2012**, 1498, 67-72	
1243	Oscillatory and anti-oscillatory motifs in genetic regulatory networks. **2012**, 21, 060203	3
1242	Isotope effect on the stereodynamics for the collision reaction H+LiF(□= 0, j = 0) -> HF+Li. **2012**, 21, 073401	10
1241	Biomolecule kinetics measurements in flow cell integrated porous silicon waveguides. **2012**, 3, 1993-2003	25
1240	Paxillin controls directional cell motility in response to physical cues. **2012**, 6, 502-8	12
1239	Micro fluidic device to control the position and to analyze the condition of C. elegans as a bioindicator. **2012**,	
1238	Vertical microbubble column-A photonic lab-on-chip for cultivation and online analysis of yeast cell cultures. **2012**, 6, 34106	18
1237	Microfluidic three-dimensional hydrodynamic flow focusing for the rapid protein concentration analysis. **2012**, 6, 24132	9
1236	Calibration of microfluidic acoustic trapping force on single microdroplet. **2012**,	
1235	Nanomachine placement strategies for detecting Brownian molecules in nanonetworks. **2012**,	8
1234	Biosensors for immune cell analysis-A perspective. **2012**, 6, 21301-2130113	27
1233	Microfluidic-driven viral infection on cell cultures: Theoretical and experimental study. **2012**, 6, 24127-2412712	16
1232	Novel stem cell-based drug discovery platforms for cardiovascular disease. **2012**, 17, 1117-27	4
1231	Assays to measure nuclear mechanics in interphase cells. **2012**, Chapter 22, Unit22.16	14
1230	Modular microfluidic system as a model of cystic fibrosis airways. **2012**, 6, 34109	21

1229	Microfluidic technology for molecular diagnostics. **2013**, 133, 89-114	7
1228	Micro- and Nanopatterning of Active Biomolecules and Cells. **2012**, 291-319	2
1227	Excimer laser micropatterning of freestanding thermo-responsive hydrogel layers for cells-on-chip applications. **2012**, 22, 105033	4
1226	Magnetically assisted self-injection and radiation generation for plasma-based acceleration. **2012**, 54, 124044	14
1225	Charging dynamics of a polymer due to electron irradiation: A simultaneous scattering-transport model and preliminary results. **2012**, 21, 127901	14
1224	Context-aware brain-computer interfaces: exploring the information space of user, technical system and environment. **2012**, 9, 016003	57
1223	A Study of Small Molecule Absorption in Polydimethylsiloxane. **2012**,	1
1222	Simple microfluidic devices for in vivo imaging of C. elegans, Drosophila and zebrafish. **2012**,	17
1221	Micromolding A Soft Lithography Technique. **2012**, 329-347	1
1220	Gecko-Inspired Nanomaterials. **2012**,	1
1219	Spontaneous oscillations of capillary blood flow in artificial microvascular networks. **2012**, 84, 123-32	41
1218	Maxwell-Wagner polarization and frequency-dependent injection at aqueous electrical interfaces. **2012**, 109, 187602	17
1217	Cross talk between cardiac myocytes and fibroblasts: from multiscale investigative approaches to mechanisms and functional consequences. **2012**, 303, H1385-96	85
1216	Computational and bioengineered lungs as alternatives to whole animal, isolated organ, and cell-based lung models. **2012**, 303, L733-47	17
1215	Micro/nanopatterning of proteins using a nanoimprint-based contact printing technique. **2012**, 811, 79-87	5
1214	Implantation of nanomaterials and nanostructures on surface and their applications. **2012**, 7, 258-281	63
1213	Development of biodegradable scaffolds based on magnetically guided assembly of magnetic sugar particles. **2012**, 159, 90-8	22
1212	. **2012**,	

1211	Microfabrication of mesoporous silica encapsulated enzymes using deep X-ray lithography. **2012**, 22, 16191		12
1210	A microfluidic flow-stretch chip for investigating blood vessel biomechanics. *Lab on A Chip*, **2012**, 12, 3441-50	7.2	105
1209	Influence of Red Blood Cells on Nanoparticle Targeted Delivery in Microcirculation. **2011**, 8, 1934-1946		137
1208	Fluid flow stress induced contraction and re-spread of mesenchymal stem cells: a microfluidic study. **2012**, 4, 1102-11		24
1207	Patterned biocatalytic films via one-step self-assembly. **2012**, 48, 4417-9		47
1206	A Novel Technique for Micro-patterning Proteins and Cells on Polyacrylamide Gels. **2012**, 8, 7197-7206		65
1205	Droplet-based microfluidic device for multiple-droplet clustering. *Lab on A Chip*, **2012**, 12, 725-30	7.2	29
1204	Anastomosis of endothelial sprouts forms new vessels in a tissue analogue of angiogenesis. **2012**, 4, 857-62		74
1203	Deconstructing the third dimension: how 3D culture microenvironments alter cellular cues. **2012**, 125, 3015-24		1055
1202	Microfabrication of cylindrical microfluidic channel networks for microvascular research. **2012**, 14, 873-83		31
1201	Cell-based microfluidic device for screening anti-proliferative activity of drugs in vascular smooth muscle cells. **2012**, 14, 1129-40		16
1200	UV-modulated substrate rigidity for multiscale study of mechanoresponsive cellular behaviors. **2012**, 28, 10789-96		24
1199	Network Connectivity and Long-Range Continuity of Lamellar Morphologies in Block Copolymer Thin Films. **2012**, 45, 1587-1594		38
1198	Mussel-inspired anchoring for patterning cells using polydopamine. **2012**, 28, 2131-6		79
1197	Hydrophilic and amphiphilic polyethylene glycol-based hydrogels with tunable degradability prepared by "click" chemistry. **2012**, 13, 4012-21		76
1196	Rapid prototyping for biomedical engineering: current capabilities and challenges. *Annual Review of Biomedical Engineering*, **2012**, 14, 73-96	12	151
1195	Micro and nanotechnological tools for study of RNA. **2012**, 94, 1588-94		2
1194	Lithographically encoded polymer microtaggant using high-capacity and error-correctable QR code for anti-counterfeiting of drugs. **2012**, 24, 5924-9		144

1193	Micro-engineered 3D scaffolds for cell culture studies. **2012**, 12, 1301-14	94
1192	Evaluation of stability and size distribution of sunflower oil-coated micro bubbles for localized drug delivery. **2012**, 11, 71	4
1191	Adipocyte induction of preadipocyte differentiation in a gradient chamber. **2012**, 18, 958-67	21
1190	Patterning of Polymeric Materials for Biological Applications. **2012**, 439-456	2
1189	Soft Lithographic Approaches to Nanofabrication. **2012**, 211-231	36
1188	Microscale Strategies for Generating Cell-Encapsulating Hydrogels. **2012**, 4, 1554	77
1187	Micropatterned substrates made by polymer bilayer dewetting and collagen nanoscale assembly support endothelial cell adhesion. **2012**, 8, 9996	20
1186	A programmable microfluidic cell array for combinatorial drug screening. *Lab on A Chip*, **2012**, 12, 1813-2722	113
1185	Molecular recognition within a poly(amide urethane) system. **2012**, 53, 3951-3957	
1184	A novel microfluidic device for the in situ optical and mechanical analysis of bacterial biofilms. **2012**, 91, 198-204	28
1183	High-throughput immunoassay through in-channel microfluidic patterning. *Lab on A Chip*, **2012**, 12, 2487-920	44
1182	Fabrication technologies. **2012**, 113-161	5
1181	Polymer brush nanopatterns with controllable features for protein pattern applications. **2012**, 22, 25116	27
1180	Facile immobilization of biomolecules onto various surfaces using epoxide-containing antibiofouling polymers. **2012**, 28, 4507-14	34
1179	At the cutting edge: applications and perspectives of laser nanosurgery in cell biology. **2012**, 393, 235-48	19
1178	Aptamer-containing surfaces for selective capture of CD4 expressing cells. **2012**, 28, 12544-9	20
1177	DNA confinement in nanochannels: physics and biological applications. **2012**, 75, 106601	260
1176	Microchip device for measurement of body volume of C. elegans as bioindicator application. **2012**, 7, 3-11	11

1175	Sensing cell-secreted molecules. **2012**, 4, 87-95		3
1174	Fabrication of tunable micropatterned substrates for cell patterning via microcontact printing of polydopamine with poly(ethylene imine)-grafted copolymers. **2012**, 8, 3678-86		55
1173	3D biomimetic chip integrated with microvascular system for studying the liver specific functions. **2012**,		
1172	Application of nanotechnology to control bacterial adhesion and patterning on material surfaces. **2012**, 7, 634-651		7
1171	Microscale methods to assemble mammalian cells into tissue-like structures. **2012**, 55, 862-71		4
1170	Inkjet-assisted layer-by-layer printing of encapsulated arrays. **2012**, 4, 3102-10		33
1169	Encyclopedia of Nanotechnology. **2012**, 1436-1436		
1168	Numerical and experimental characterization of a novel modular passive micromixer. **2012**, 14, 849-62		20
1167	A microfluidic device for simple and rapid evaluation of multidrug efflux pump inhibitors. **2012**, 3, 40		18
1166	. **2012**,		4
1165	Physical aspects of cell culture substrates: topography, roughness, and elasticity. **2012**, 8, 336-55		239
1164	Hydrogels and microtechnologies for engineering the cellular microenvironment. **2012**, 4, 235-46		48
1163	Monodisperse, submicrometer droplets via condensation of microfluidic-generated gas bubbles. **2012**, 8, 2704-14		25
1162	Microfluidic automation using elastomeric valves and droplets: reducing reliance on external controllers. **2012**, 8, 2925-34		27
1161	Magnetic nanoparticles for the manipulation of proteins and cells. **2012**, 41, 2912-42		302
1160	Microfluidic droplet sorting with a high frequency ultrasound beam. *Lab on A Chip*, **2012**, 12, 2736-42	7.2	37
1159	Medium to high throughput screening: microfabrication and chip-based technology. **2012**, 745, 181-209		7
1158	High throughput fabrication of disposable nanofluidic lab-on-chip devices for single molecule studies. **2012**, 6, 36502		46

1157	Collagen microsphere production on a chip. *Lab on A Chip*, **2012**, 12, 3277-80	7.2	61
1156	Evaluating cell migration in vitro by the method based on cell patterning within microfluidic channels. **2012**, 33, 773-9		7
1155	Patterning nanoparticles in a three-dimensional matrix using an electric-field-assisted gel transferring technique. **2012**, 28, 2960-4		7
1154	Exploiting additive and subtractive patterning for spatially controlled and robust bacterial co-cultures. **2012**, 8, 9147		8
1153	Unconventional Multi-Scale Patterning of Titanium Dioxide: A New Tool for the Investigation of Cell□Topography Interactions. **2012**, 14, B208-B215		4
1152	AFM Characterization of Elastically Micropatterned Surfaces Fabricated by Fill-Molding In Capillaries (FIMIC) and Investigation of the Topographical Influence on Cell Adhesion to the Patterns. **2012**, 14, B56-B66		12
1151	Electrochemically Triggered Selective Adsorption of Biotemplated Nanoparticles on Self-Assembled Organometallic Diblock Copolymer Thin Films. **2012**, 22, 3273-3278		19
1150	Nanotransfer printing with sub-10 nm resolution realized using directed self-assembly. **2012**, 24, 3526-31		83
1149	Flexible microfluidic cloth-based analytical devices using a low-cost wax patterning technique. *Lab on A Chip*, **2012**, 12, 209-18	7.2	158
1148	Tunable micropatterned substrates based on poly(dopamine) deposition via microcontact printing. **2012**, 28, 5775-82		123
1147	Vascularized bone tissue engineering: approaches for potential improvement. **2012**, 18, 363-82		216
1146	Regioselective surface modification of pdms microfluidic device for the generation of monodisperse double emulsions. **2012**, 20, 422-428		23
1145	A dry and flexible electrode for continuous-EEG monitoring using silver balls based polydimethylsiloxane (PDMS). **2012**, 2, 18-23		5
1144	Surface coating as a key parameter in engineering neuronal network structures in vitro. **2012**, 7, 29		34
1143	Impact of the carbazole derivative wiskostatin on mechanical stability and dynamics of motile cells. **2012**, 33, 95-106		3
1142	Anisotropic effects of mechanical strain on neural crest stem cells. **2012**, 40, 598-605		8
1141	Development of disposable PDMS micro cell culture analog devices with photopolymerizable hydrogel encapsulating living cells. **2012**, 14, 409-18		16
1140	Pitch reduction lithography by pressure-assisted selective wetting and thermal reflow. **2012**, 376, 250-4		3

1139	Shear and dilational interfacial rheology of surfactant-stabilized droplets. **2012**, 377, 442-9		21
1138	Engineering microscale topographies to control the cell-substrate interface. **2012**, 33, 5230-46		499
1137	Preparation of photolithographically patterned inverse opal hydrogel microstructures and its application to protein patterning. **2012**, 35, 243-250		22
1136	Fabrication of elastomeric high-aspect-ratio microstructures using polydimethylsiloxane (PDMS) double casting technique. **2012**, 178, 230-236		57
1135	Microfabricated biomaterials for engineering 3D tissues. **2012**, 24, 1782-804		310
1134	Non-lithographic fabrication of metallic micromold masters by laser machining and welding. **2012**, 59, 157-167		5
1133	Cellular reprogramming: a new technology frontier in pharmaceutical research. **2012**, 29, 35-52		9
1132	Microbubble transport through a bifurcating vessel network with pulsatile flow. **2012**, 14, 131-43		12
1131	Surface infusion micropatterning of elastomeric substrates. *Microfluidics and Nanofluidics*, **2012**, 12, 451-464		5
1130	Generation of uniform agarose microwells for cell patterning by micromolding in capillaries. **2013**, 21, 534-540		8
1129	Lab on a chip for diagnosis: From blood to point of care. **2013**, 3, 59-66		16
1128	Surface chemoselective phototransformation of C-H bonds on organic polymeric materials and related high-tech applications. **2013**, 113, 5547-94		80
1127	Nucleobase-grafted polycaprolactones as reversible networks in a novel biocompatible material. **2013**, 3, 12598		16
1126	Surface engineering the cellular microenvironment via patterning and gradients. **2013**, 51, 775-794		41
1125	Fabrication of Microscale Hydrogels for Tissue Engineering Applications. **2013**, 59-80		2
1124	Biophysical cues and cell behavior: the big impact of little things. *Annual Review of Biomedical Engineering*, **2013**, 15, 155-76	12	85
1123	Micro- and nanoscale engineering of cell signaling. *Annual Review of Biomedical Engineering*, **2013**, 15, 305-26	12	17
1122	A versatile click-grafting approach to surface modification of silk fibroin films. **2013**, 48, 7004-7010		11

1121	Topographic effect on human induced pluripotent stem cells differentiation towards neuronal lineage. **2013**, 34, 8131-9	91
1120	Porous nanomaterials for biomedical applications. **2013**, 487-507	2
1119	Stimuli-responsive hydrogel patterns for smart microfluidics and microarrays. **2013**, 138, 6230-42	56
1118	Microengineered tumor models: insights & opportunities from a physical sciences-oncology perspective. **2013**, 15, 583-593	33
1117	Formation of microvascular networks in vitro. **2013**, 8, 1820-36	149
1116	Fabrication and characterisation of high performance polypyrrole modified microarray sensor for ascorbic acid determination. **2013**, 793, 11-8	9
1115	Cell-material interactions revealed via material techniques of surface patterning. **2013**, 25, 5257-86	370
1114	Fabrication and applications of the protein patterns. **2013**, 56, 1087-1100	12
1113	Enzyme-modified indium tin oxide microelectrode array-based electrochemical uric acid biosensor. **2013**, 2, 5	15
1112	Reversible control over molecular recognition in surface-bound photoswitchable hydrogen-bonding receptors: towards read-write-erase molecular printboards. **2013**, 19, 12748-58	21
1111	Micromechanical Design Criteria for Tissue Engineering Biomaterials. **2013**, 1165-1178	1
1110	Facile fabrication of plastic template for three-dimensional micromixer-embedded microfluidic device. **2013**, 7, 104-111	3
1109	Bioimprinting strategies: from soft lithography to biomimetic sensors and beyond. **2013**, 31, 1435-47	60
1108	Microelectromechanical systems and nephrology: the next frontier in renal replacement technology. **2013**, 20, 516-35	11
1107	Fabrication of Freestanding 1-D PDMS Microstructures Using Capillary Micromolding. **2013**, 22, 992-994	20
1106	Topologically Distinct Lamellar Block Copolymer Morphologies Formed by Solvent and Thermal Annealing. **2013**, 2, 918-923	35
1105	One-step generation of engineered drug-laden poly(lactic-co-glycolic acid) micropatterned with Teflon chips for potential application in tendon restoration. **2013**, 5, 10583-90	18
1104	Use of atomic force microscopy (AFM) to explore cell wall properties and response to stress in the yeast Saccharomyces cerevisiae. **2013**, 59, 187-96	32

1103	Nanotechnology: emerging tools for biology and medicine. **2013**, 27, 2397-408		75
1102	Selective stamp bonding of PDMS microfluidic devices to polymer substrates for biological applications. **2013**, 193, 186-192		26
1101	PDMS bonding to a bio-friendly photoresist via self-polymerized poly(dopamine) adhesive for complex protein micropatterning inside microfluidic channels. **2013**, 112, 134-8		14
1100	Application of cellular micropatterns to miniaturized cell-based biosensor. **2013**, 3, 117-130		6
1099	Micropatterned Surfaces for the Study of Cancer and Endothelial Cell Interactions with Hyaluronic Acid. **2013**, 53, n/a-n/a		1
1098	Testing of flow-based microfluidic biochips. **2013**,		2
1097	On-Chip Light Modulation Applying Optofluidic Principles. **2013**, 13, 4773-4779		3
1096	In situ synthesis of vertical 3-D copper-core/carbon-sheath nanowalls in microfluidic devices. **2013**, 3, 1388-1396		7
1095	. **2013**,		
1094	Microfluidic construction of minimalistic neuronal co-cultures. *Lab on A Chip*, **2013**, 13, 1402-12	7.2	57
1093	Change of laminin density stimulates axon branching via growth cone myosin II-mediated adhesion. **2013**, 5, 1244-52		14
1092	The motion of a microgel in an axisymmetric constriction with a tapered entrance. **2013**, 9, 10391		16
1091	A Simple Nanoscale Interface Directs Alignment of a Confluent Cell Layer on Oxide and Polymer Surfaces. **2013**, 1, 3553-3561		12
1090	Hierarchical polymer brush nanoarrays: a versatile way to prepare multiscale patterns of proteins. **2013**, 5, 2126-32		28
1089	Moir□Based Phase Imaging for Sensing and Adjustment of In-Plane Twist Angle. **2013**, 25, 1847-1850		10
1088	Microfluidic acoustic trapping force and stiffness measurement using viscous drag effect. **2013**, 53, 249-54		14
1087	Human mesenchymal stem-cell behaviour on direct laser micropatterned electrospun scaffolds with hierarchical structures. **2013**, 13, 299-310		40
1086	Mediator-free microfluidics biosensor based on titania□irconia nanocomposite for urea detection. **2013**, 3, 228-235		54

1085	A Simple Paper-Based Microfluidic Device for the Determination of the Total Amino Acid Content in a Tea Leaf Extract. **2013**, 90, 232-234	49
1084	From the bottom up: dimensional control and characterization in molecular monolayers. **2013**, 42, 2725-45	136
1083	Cells adhered and cultured on microcantilevers. **2013**, 19, 105-112	1
1082	Experimental study of a liquid fluidization in a microfluidic channel. **2013**, 59, 361-364	28
1081	Biomechanical force in blood development: extrinsic physical cues drive pro-hematopoietic signaling. **2013**, 86, 92-103	33
1080	Mutiscale substrates based on hydrogel-incorporated silicon nanowires for protein patterning and microarray-based immunoassays. **2013**, 45, 129-35	33
1079	Mathematical modeling of interdigitated electrode arrays in finite electrochemical cells. **2013**, 705, 19-29	3
1078	Microfabricated devices for cell biology: all for one and one for all. **2013**, 25, 116-24	40
1077	Microfluidic device for efficient airborne bacteria capture and enrichment. **2013**, 85, 5255-62	61
1076	Singularities in hydrophobic recovery of plasma treated polydimethylsiloxane surfaces under non-contaminant atmosphere. **2013**, 197, 25-29	34
1075	Reactivity of poly(dimethylsiloxane) toward acidic permanganate. **2013**, 19, 1770-1773	4
1074	Effective and Versatile Strategy for the Total Solid-Phase Synthesis of Alkanethiols for Biological Applications. **2013**, 2013, 1233-1239	2
1073	Integrated optics nano-opto-fluidic sensor based on whispering gallery modes for picoliter volume refractometry. **2013**, 46, 105104	9
1072	Applications of microfluidics for molecular diagnostics. **2013**, 949, 305-34	23
1071	Vibrio cholerae Exploits Sub-Lethal Concentrations of a Competitor-Produced Antibiotic to Avoid Toxic Interactions. **2013**, 4, 8	11
1070	Flocculated carbon nanotube composites for solvent resistant soft templated microfeatures. **2013**, 54, 1130-1135	6
1069	Manipulating biological agents and cells in micro-scale volumes for applications in medicine. **2013**, 42, 5788-808	82
1068	Bioreactor engineering of stem cell environments. **2013**, 31, 1020-31	43

1067	Fluorescent reporters and methods to analyze fluorescent signals. **2013**, 983, 93-112		21
1066	Microfluidic based immunosensor for detection and purification of carbonylated proteins. **2013**, 15, 519-30		12
1065	A microfabricated platform for establishing oxygen gradients in 3-D constructs. **2013**, 15, 407-14		26
1064	"Soft" liquid-phase adsorption for the fabrication of solution processable organic material films on wettability-patterned surfaces. **2013**, 29, 7743-8		11
1063	Manipulation and confinement of single particles using fluid flow. **2013**, 13, 2357-64		84
1062	Engineering of the embryonic and adult stem cell niches. **2013**, 15, 83-92		13
1061	Is the focus on "molecules" obsolete?. **2013**, 6, 1-29		12
1060	Comparison of polyurethane and epoxy resist master mold for nanoscale soft lithography. **2013**, 110, 183-187		11
1059	Internal resistance of microfluidic microbial fuel cell: challenges and potential opportunities. **2013**, 142, 672-82		144
1058	Surface Patterning. **2013**, 276-301		3
1057	Surface Modification for Biocompatibility. **2013**, 189-220		5
1056	Microfluidic Systems for Controlling Stem Cells Microenvironments. **2013**, 175-203		1
1055	Microfluidic Cell Culture Techniques. **2013**, 303-321		0
1054	A novel assembly technique with semi-automatic alignment for PDMS substrates. *Lab on A Chip*, **2013**, 13, 1044-7	7.2	12
1053	Passive droplet sorting using viscoelastic flow focusing. *Lab on A Chip*, **2013**, 13, 1308-15	7.2	40
1052	Simple replica micromolding of biocompatible styrenic elastomers. *Lab on A Chip*, **2013**, 13, 2773-84	7.2	45
1051	Droplet-based microfluidics. **2013**, 949, 207-30		24
1050	The pivotal role of vascularization in tissue engineering. *Annual Review of Biomedical Engineering*, **2013**, 15, 177-200	12	225

1049	A New Microfluidic Chip-Based Online Electrochemical Platform for Extracellular Neurochemicals Monitoring in Rat Brain. **2013**, 25, 1010-1016		11
1048	Glia co-culture with neurons in microfluidic platforms promotes the formation and stabilization of synaptic contacts. *Lab on A Chip*, **2013**, 13, 3008-21	7.2	80
1047	Honeycomb patterned surfaces functionalized with polypeptide sequences for recognition and selective bacterial adhesion. **2013**, 34, 1453-60		42
1046	Interdisciplinary engineering approaches to study how pathogenic bacteria interact with fresh produce. **2013**, 114, 426-448		24
1045	Morphological comparison of PVA scaffolds obtained by gas foaming and microfluidic foaming techniques. **2013**, 29, 82-91		79
1044	Sequential nucleophilic substitutions permit orthogonal click functionalization of multicomponent PEG brushes. **2013**, 14, 3294-303		30
1043	Magnetic control of protein spatial patterning to direct microtubule self-assembly. **2013**, 7, 9647-54		9
1042	Microfluidic chip-based online electrochemical detecting system for continuous and simultaneous monitoring of ascorbate and Mg2+ in rat brain. **2013**, 85, 7599-605		38
1041	Versatile functional microstructured polystyrene-based platforms for protein patterning and recognition. **2013**, 14, 3147-54		5
1040	Micro/nano-scale materials and structures for constructing neuronal networks and addressing neurons. **2013**, 1, 7652		12
1039	Spatially selective formation of hydrocarbon, fluorocarbon, and hydroxyl-terminated monolayers on a microelectrode array. **2013**, 29, 6779-83		1
1038	Human saphenous vein endothelial cell adhesion and expansion on micropatterned polytetrafluoroethylene. **2013**, 101, 694-703		10
1037	Precise control of cell adhesion by combination of surface chemistry and soft lithography. **2013**, 2, 95-108		74
1036	Integrated microfluidic spectroscopic sensor using arrayed waveguide grating. **2013**,		
1035	Sensing self-assembled alkanethiols by differential transmission interrogation with terahertz metamaterials. **2013**, 52, 4877-83		15
1034	Antibody-based Blood Bioparticle Capture and Separation Using Microfluidics for Global Health. **2013**, 417-450		
1033	Emerging Stem Cell Controls: Nanomaterials and Plasma Effects. **2013**, 2013, 1-15		13
1032	Packaging and coating materials for implantable devices. **2013**, 68-107		3

1031	Characterization of Optical Absorption and Polarization Dependence of Single-Layer Graphene Integrated on a Silicon Wire Waveguide. **2013**, 52, 060203	18
1030	In silicosearch for novel methane steam reforming catalysts. **2013**, 15, 125021	55
1029	A microfluidic device for the continuous culture and analysis ofCaenorhabditis elegansin a toxic aqueous environment. **2013**, 23, 085008	6
1028	Hydrophobicity studies of polymer thin films with varied CNT concentration. **2013**,	2
1027	Subthreshold behavior and avalanches in an exactly solvable charge density wave system. **2013**, 103, 46002	5
1026	Probing cellular behaviors through nanopatterned chitosan membranes. **2013**, 14, 044406	3
1025	Culturing and Bonding of Diatom on a Microfluidic Chip for Biosensing Application. **2013**, 461, 809-813	2
1024	Actin cytoskeleton of chemotactic amoebae operates close to the onset of oscillations. **2013**, 110, 3853-8	44
1023	Directing convection to pattern thin polymer films. **2013**, 51, 535-545	24
1022	Precise patterning of silk microstructures using photolithography. **2013**, 25, 6207-12	85
1021	Live-cell analysis of plant reproduction: live-cell imaging, optical manipulation, and advanced microscopy technologies. **2013**, 55, 462-73	21
1020	Monitoring the disease activity via the antibody-antigen recognition in paper. **2013**,	
1019	Thermally assisted spatially directed pore formation in poly-dimethylsiloxane (PDMS). **2013**, 103, 153702	
1018	Biomechanics of haemostasis and thrombosis in health and disease: from the macro- to molecular scale. **2013**, 17, 579-96	26
1017	Capillary liquid chromatography fraction collection and postcolumn reaction using segmented flow microfluidics. **2013**, 36, 3471-7	6
1016	Enhanced osteogenic fate and function of MC3T3-E1 cells on nanoengineered polystyrene surfaces with nanopillar and nanopore arrays. **2013**, 5, 025007	27
1015	Micro-fabrication of an absolute flow calorimeter for DC to RF power measurement. **2013**,	
1014	Poly(ethylene glycol)-Functionalized Photocurable Silsesquioxane as an Antibiofouling Material for Nanostructure-Based Biomedical Applications. **2013**, 52, 06GG01	1

1013 Microfluidic devices for cell manipulation. **2013**, 283-350

1012 Micrometer scale guidance of mesenchymal stem cells to form structurally oriented cartilage extracellular matrix. **2013**, 19, 1081-90 15

1011 Microfluidics: On-Chip Platforms as In Vitro Disease Models. **2013**, 213-239

1010 Printing thermoresponsive reverse molds for the creation of patterned two-component hydrogels for 3D cell culture. **2013**, e50632 29

1009 [Micro/nano-engineering to control growth of neuronal cells and tissue engineering applied to the central nervous system]. **2013**, 207, 291-307 1

1008 Heat Transfer Characteristics Over the Interface of Alkanethiolate SAM and Alkane Liquid. **2013**,

1007 A simple and rapid method for generating patterned co-cultures with stable interfaces. **2013**, 55, 21-6 11

1006 Lab-on-a-Chip Approaches for Space-Biology Research. **2013**, 3, 24-39 2

1005 The interplay between chondrocyte redifferentiation pellet size and oxygen concentration. **2013**, 8, e58865 56

1004 Effects of nanostructures and mouse embryonic stem cells on in vitro morphogenesis of rat testicular cords. **2013**, 8, e60054 13

1003 A simple technique based on a single optical trap for the determination of bacterial swimming pattern. **2013**, 8, e61630 13

1002 A Review of Single-Cell Manipulation Techniques for Microfluidic Lab-On-a-Chip Systems. **2013**,

1001 Phenotypic modulation of primary vascular smooth muscle cells by short-term culture on micropatterned substrate. **2014**, 9, e88089 52

1000 Emergence of bursting activity in connected neuronal sub-populations. **2014**, 9, e107400 40

999 Automated long-term monitoring of parallel microfluidic operations applying a machine vision-assisted positioning method. **2014**, 2014, 608184 3

998 Nanoengineered Platforms to Guide Pluripotent Stem Cell Fate. **2014**, 5, 3

997 Electrodes Microfluidics System for Microbio Object Analysis. **2014**, 70,

996 Optimum phase shift for quantitative phase microscopy in volume measurement. **2014**, 31, 2429-36 8

995	Selective deposition of chemically-bonded gold electrodes onto PDMS microchannel side walls. **2014**, 727, 141-147		8
994	Osteogenic commitment of mesenchymal stem cells in apatite nanorod-aligned ceramics. **2014**, 6, 21886-93		24
993	Poly(ethylene glycol) (PEG) microwells in microfluidics: Fabrication methods and applications. **2014**, 8, 241-253		10
992	Atomic force microscopy measurements of mechanical properties of single cells patterned by microcontact printing. **2014**, 28, 449-455		12
991	The Role of the Shape in the Design of New Nanoparticles. **2014**, 61-86		
990	Complex micropatterning of proteins within microfluidic channels. **2014**, 2014, 782-5		
989	Wash optimization for cross-contamination removal in flow-based microfluidic biochips. **2014**,		9
988	Metabolic consequences of interleukin-6 challenge in developing neurons and astroglia. **2014**, 11, 183		21
987	Trends in characterizing single cell's stiffness properties. **2014**, 2,		13
986	Influence of Collimation on Alignment Accuracy in Proximity Lithography. **2014**, 6, 1-10		3
985	The Rho family GEF Asef2 regulates cell migration in three dimensional (3D) collagen matrices through myosin II. **2014**, 8, 460-7		7
984	Pressure stabilizer for reproducible picoinjection in droplet microfluidic systems. *Lab on A Chip*, **2014**, 14, 4533-9	7.2	27
983	IR laser assisted photothermal condensation in a microchannel. **2014**, 119, 288-294		10
982	Micropatterning cells on permeable membrane filters. **2014**, 121, 171-89		4
981	Preparation of a micropatterned rigid-soft composite substrate for probing cellular rigidity sensing. **2014**, 121, 3-15		7
980	Micro-fabricated DC comparison calorimeter for RF power measurement. **2014**, 14, 20245-61		3
979	Polyelectrolyte Multilayers: Towards Single Cell Studies. **2014**, 6, 1502-1527		40
978	Current Techniques for Fabricating Microfluidic and Optofluidic Devices. **2014**, 7-17		1

977 An ex vivo platform for quantitatively analyzing pairwise interactions between cancer cells. **2014**,

976 Challenges and opportunities for tissue-engineering polarized epithelium. **2014**, 20, 56-72 18

975 Advances in the surface modification techniques of bone-related implants for last 10 years. **2014**, 1, 67-79 69

974 Development of micropatterned cell-sensing surfaces. **2014**, 121, 75-90 4

973 Synthesis and characterization of well-defined PAA□PEG multi-responsive hydrogels by ATRP and click chemistry. **2014**, 4, 54631-54640 11

972 Fine-tuned grayscale optofluidic maskless lithography for three-dimensional freeform shape microstructure fabrication. **2014**, 39, 5162-5 33

971 Moir□nterferometry with high alignment resolution in proximity lithographic process. **2014**, 53, 951-9 6

970 Chapter 16:Surface Acoustic Wave Based Microfluidics and Droplet Applications. 399-419 1

969 Microfluidic design of complex emulsions. **2014**, 15, 21-9 43

968 Engineering a functional neuro-muscular junction model in a chip. **2014**, 4, 54788-54797 25

967 Protein Patterning on Microplasma-Activated PEO-Like Coatings. **2014**, 11, 263-268 6

966 Advanced Fabrication Methods and Techniques. **2014**, 87-170 1

965 Micro-Scale Patterning of Cells and their Environment. **2014**, 359-384

964 Precise manipulation of cell behaviors on surfaces for construction of tissue/organs. **2014**, 124, 97-110 12

963 Materials for perfusion bioreactors used in tissue engineering. **2014**, 224-251

962 Chapter 6:Introduction to Optofluidics for LOC Systems. **2014**, 153-191

961 A simple paper-based sensor fabricated by selective wet etching of silanized filter paper using a paper mask. **2014**, 8, 056504 56

960 Versatile on-demand droplet generation for controlled encapsulation. **2014**, 8, 034112 9

959	Curved and folded micropatterns in 3D cell culture and tissue engineering. **2014**, 121, 121-39	5
958	Site-specific differentiation of neural stem cell regulated by micropatterned multicomponent interfaces. **2014**, 3, 214-20	19
957	Fabrication Techniques for PDMS Dome-Shaped Membrane Using Soft Lithography Process. **2014**, 660, 899-903	
956	Large area micropatterning of cells on polydimethylsiloxane surfaces. **2014**, 8, 24	15
955	Micropatterned porous membranes for combinatorial cell-based assays. **2014**, 121, 155-69	1
954	Micropatterning of cell aggregate in three dimension for in vivo mimicking cell culture. **2014**, 223-241	0
953	Enhanced endothelial differentiation of adipose-derived stem cells by substrate nanotopography. **2014**, 8, 50-8	36
952	A study on the biological detection chip through the use of PDMS lens for the reinforcement of fluorescence receiving signal. **2014**, 125, 1846-1852	3
951	The improved resistance of PDMS to pressure-induced deformation and chemical solvent swelling for microfluidic devices. **2014**, 124, 66-75	36
950	A microfluidic cell co-culture platform with a liquid fluorocarbon separator. **2014**, 16, 311-23	16
949	A mathematical model and numerical method for thermoelectric DNA sequencing. **2014**, 50, 693-709	
948	Rapid and low cost replication of complex microfluidic structures with PDMS double casting technology. **2014**, 20, 1933-1940	26
947	Cellular self-organization on micro-structured surfaces. **2014**, 10, 2397-404	21
946	Preparation of stable micropatterns of gold on cell-adhesion-resistant hydrogels assisted by a hetero-bifunctional macromonomer linker. **2014**, 57, 645-653	11
945	Cell encapsulation via microtechnologies. **2014**, 35, 2651-63	168
944	Multiscale tissue engineering for liver reconstruction. **2014**, 10, 216-24	27
943	Physiologically relevant organs on chips. **2014**, 9, 16-27	94
942	A review of microfabrication and hydrogel engineering for micro-organs on chips. **2014**, 35, 1816-32	166

941	Integrated micro/nanoengineered functional biomaterials for cell mechanics and mechanobiology: a materials perspective. **2014**, 26, 1494-533		109
940	Bioactivated Materials for Cell and Tissue Guidance. **2014**, 137-150		1
939	A continuous-flow high-throughput microfluidic device for airborne bacteria PCR detection. *Lab on A Chip*, **2014**, 14, 671-6	7.2	41
938	Investigation and improvement of reversible microfluidic devices based on glassPDMSglass sandwich configuration. *Microfluidics and Nanofluidics*, **2014**, 16, 83-90	2.8	23
937	High fidelity nanopatterning of proteins onto well-defined surfaces through subtractive contact printing. **2014**, 119, 277-92		1
936	Visualizing single rod-shaped fission yeast vertically in micro-sized holes on agarose pad made by soft lithography. **2014**, 120, 227-34		7
935	The platelet and the biophysical microenvironment: lessons from cellular mechanics. **2014**, 133, 532-7		8
934	Plasma microcontact patterning (PP): a technique for the precise control of surface patterning at small-scale. **2014**, 119, 73-90		5
933	Micro- and nanofabrication of chitosan structures for regenerative engineering. **2014**, 10, 1632-45		84
932	In vitro models of tumor vessels and matrix: engineering approaches to investigate transport limitations and drug delivery in cancer. **2014**, 69-70, 205-216		55
931	Semiconducting silicon nanowire array fabrication for high throughput screening in the biosciences. **2014**, 171-191		1
930	Modeling human carcinomas: physiologically relevant 3D models to improve anti-cancer drug development. **2014**, 79-80, 50-67		99
929	Opto-mechanical microbridles for the determination of structural and functional properties of small resistance arteries. **2014**,		
928	Rate control of cell sheet recovery by incorporating hydrophilic pattern in thermoresponsive cell culture dish. **2014**, 102, 2849-56		16
927	Characterization of oxygen transfer in vertical microbubble columns for aerobic biotechnological processes. **2014**, 111, 1809-19		18
926	Rapid osteogenic differentiation of mesenchymal stem cells on hydroxyapatite nanocrystal clusters-oriented nanotopography. **2014**, 4, 58019-58026		3
925	Three-dimensional patterning of multiple cell populations through orthogonal genetic control of cell motility. **2014**, 10, 2372-80		11
924	Catalytic oxygen production mediated by smart capsules to modulate elastic turbulence under a laminar flow regime. *Lab on A Chip*, **2014**, 14, 4391-7	7.2	12

923	Micropatterning neuronal networks. **2014**, 139, 3256-64		24
922	Microfluidic long-term differential oxygenation for bacterial growth characteristics analyses. **2014**, 4, 16662-16673		8
921	Optofluidics based micro-photocatalytic fuel cell for efficient wastewater treatment and electricity generation. *Lab on A Chip*, **2014**, 14, 3368-75	7.2	60
920	A microfluidic device to study the digestion of trapped lipid droplets. **2014**, 5, 1481-8		19
919	Delayed voltammetric with respect to amperometric electrochemical detection of concentration changes in microchannels. *Lab on A Chip*, **2014**, 14, 2929-40	7.2	7
918	Microfluidic channel structures speed up mixing of multiple emulsions by a factor of ten. **2014**, 8, 054101		4
917	A label-free microfluidic assay to quantitatively study antibiotic diffusion through lipid membranes. *Lab on A Chip*, **2014**, 14, 2303-8	7.2	22
916	On-chip direct freezing and thawing of mammalian cells. **2014**, 4, 34443-34447		8
915	A cell-assembled, spatially aligned extracellular matrix to promote directed tissue development. **2014**, 2, 1449-1453		23
914	Patterning of cells through patterning of biology. **2014**, 10, 1689-92		4
913	A simple and inexpensive technique for PDMS/silicon chip alignment with sub-□n precision. *Analytical Methods*, **2014**, 6, 97-101	3.2	14
912	Testing of Flow-Based Microfluidic Biochips: Fault Modeling, Test Generation, and Experimental Demonstration. **2014**, 33, 1463-1475		48
911	Modulation of alpha-synuclein toxicity in yeast using a novel microfluidic-based gradient generator. *Lab on A Chip*, **2014**, 14, 3949-57	7.2	25
910	Fracture-based micro- and nanofabrication for biological applications. **2014**, 2, 288-296		27
909	Exocytosis and Endocytosis. **2014**,		
908	Microfabricated Systems and Assays for Studying the Cytoskeletal Organization, Micromechanics, and Motility Patterns of Cancerous Cells. **2014**, 1, 1400158		6
907	Atomic force microscopy characterization and lithography of Cu-ligated mercaptoalkanoic acid "molecular ruler" multilayers. **2014**, 30, 7447-55		8
906	A generalizable, tunable microfluidic platform for delivering fast temporally varying chemical signals to probe single-cell response dynamics. **2014**, 86, 10138-47		32

905	Negative printing by soft lithography. **2014**, 6, 14278-85		6
904	Low cost microfluidic cell culture array using normally closed valves for cytotoxicity assay. **2014**, 129, 491-8		29
903	Distributing Nanomachines for Minimizing Mean Residence Time of Molecular Signals in Bionanosensor Networks. **2014**, 14, 218-227		13
902	Micropatterned multicolor dynamically adhesive substrates to control cell adhesion and multicellular organization. **2014**, 30, 1327-35		21
901	Neural cell alignment by patterning gradients of the extracellular matrix protein laminin. **2014**, 4, 20130041		26
900	Inkjet printing of silk nest arrays for cell hosting. **2014**, 15, 1428-35		62
899	A molecular dynamics study on heat conduction characteristics inside the alkanethiolate SAM and alkane liquid. **2014**, 78, 630-635		31
898	Soft Lithography for Patterning Self-Assembling Systems. **2014**, 343-370		1
897	Preparation and validation of low cost microfluidic chips using a shrinking approach. *Lab on A Chip*, **2014**, 14, 4007-16	7.2	7
896	Tissue Fabrication Technology. **2014**, 130-155		
895	Recent progress in low-voltage cathodoluminescent materials: synthesis, improvement and emission properties. **2014**, 43, 7099-131		128
894	A monolithic and flexible fluoropolymer film microreactor for organic synthesis applications. *Lab on A Chip*, **2014**, 14, 4270-6	7.2	17
893	Polymerase chain reaction compatibility of adhesive transfer tape based microfluidic platforms. **2014**, 20, 1187-1193		13
892	Analysis of a swimming sperm in a shear flow. *Microfluidics and Nanofluidics*, **2014**, 17, 809-819	2.8	22
891	Femtosecond Laser 3D Micromachining for Microfluidic and Optofluidic Applications. **2014**,		5
890	Biomimetic microfluidic device for in vitro antihypertensive drug evaluation. **2014**, 11, 2009-15		12
889	A fluorophore-tagged RGD peptide to control endothelial cell adhesion to micropatterned surfaces. **2014**, 35, 879-90		30
888	Micropatterning of functional dye films on wettability-patterned surfaces using soft liquid-phase adsorption. **2014**, 443, 296-302		2

887	Titania microparticles using a facile microfluidic mass-transfer control method. **2014**, 112, 10-14		4
886	In vitro models of the metastatic cascade: from local invasion to extravasation. **2014**, 19, 735-42		57
885	Selective adsorption of L1210 leukemia cells/human leukocytes on micropatterned surfaces prepared from polystyrene/polypropylene-polyethylene blends. **2014**, 113, 403-11		2
884	Approaches to in vitro tissue regeneration with application for human disease modeling and drug development. **2014**, 19, 754-62		33
883	Micro/nano replication and 3D assembling techniques for scaffold fabrication. **2014**, 42, 615-21		25
882	Plasmonic nanoparticles: fabrication, simulation and experiments. **2014**, 47, 213001		63
881	Continuous and simultaneous electrochemical measurements of glucose, lactate, and ascorbate in rat brain following brain ischemia. **2014**, 86, 3895-901		87
880	High-precision robotic microcontact printing (R-μCP) utilizing a vision guided selectively compliant articulated robotic arm. *Lab on A Chip*, **2014**, 14, 1923-30	7.2	18
879	Recent developments in microfluidics for cell studies. **2014**, 26, 5525-32		67
878	The effects of confinement on neuronal growth cone morphology and velocity. **2014**, 35, 6750-7		6
877	Study on applying a flexibility-assisted array air bag imprinting processing technology in the development of linear gradient imprinting and simulating an asymmetric imprinting plane. **2014**, 122, 64-69		2
876	Deconstructing signaling in three dimensions. **2014**, 53, 2078-90		43
875	Approaching the in vitro clinical trial: engineering organs on chips. *Lab on A Chip*, **2014**, 14, 3181-6	7.2	82
874	Rapid fabrication technique of nano/microfluidic device with high mechanical stability utilizing two-step soft lithography. **2014**, 201, 407-412		20
873	Anisotropic cell-to-cell spread of vaccinia virus on microgrooved substrate. **2014**, 35, 5049-55		10
872	Integration of microfluidic chip with biomimetic hydrogel for 3D controlling and monitoring of cell alignment and migration. **2014**, 102, 1164-72		27
871	AxonQuant: A Microfluidic Chamber Culture-Coupled Algorithm That Allows High-Throughput Quantification of Axonal Damage. **2014**, 22, 14-29		9
870	Generation of shear adhesion map using SynVivo synthetic microvascular networks. **2014**,		6

869	Preparation of neuronal co-cultures with single cell precision. **2014**,	4
868	Cryo-preservation for the repeated use of a PDMS prepolymer. **2014**, 131, n/a-n/a	
867	- Hydrogels: Characteristics and Properties. **2014**, 356-405	
866	Materials Integration by Nanointaglio. **2014**, 1, 1300127	11
865	A microfluidic-enabled mechanical microcompressor for the immobilization of live single- and multi-cellular specimens. **2014**, 20, 141-51	18
864	Fabrication of Silk Microstructures Using Photolithography. **2015**, 1718, 163-170	
863	Stretching fibroblasts remodels fibronectin and alters cancer cell migration. **2015**, 5, 8334	51
862	Surface modification on polydimethylsiloxane-based microchannels with fragmented poly(l-lactic acid) nanosheets. **2015**, 9, 064108	3
861	Localized surface functionalization of polycaprolactone with atmospheric-pressure microplasma jet. **2015**, 1, 025002	3
860	Advances in 3D neuronal cell culture. **2015**, 33, 06F902	16
859	An Investigation of PDMS Stamp Assisted Mechanical Exfoliation of Large Area Graphene. **2015**, 1, 840-853	22
858	Microfluidic Genipin Deposition Technique for Extended Culture of Micropatterned Vascular Muscular Thin Films. **2015**, e52971	2
857	Analysing calcium signalling of cells under high shear flows using discontinuous dielectrophoresis. **2015**, 5, 11973	15
856	Quantifying morphological heterogeneity: a study of more than 1 000 000 individual stored red blood cells. **2015**, 109, 221-30	11
855	Cell Sheet-Based Tissue Engineering for Organizing Anisotropic Tissue Constructs Produced Using Microfabricated Thermoresponsive Substrates. **2015**, 4, 2388-407	49
854	Ordered patterns formed on polymer film through trapping and locking. **2015**, 53, 1701-1705	
853	Soft lithography microfabrication of functionalized thermoplastics by solvent casting. **2015**, 53, 1315-1323	7
852	Biomimetic Replication of Microscopic Metal-Organic Framework Patterns Using Printed Protein Patterns. **2015**, 27, 7293-8	85

851	Bioreaktionstechnik in mikrofluidischen Reaktoren. **2015**, 87, 505-517	3
850	Impedance Monitoring of Droplets in a Microfluidic Chip. **2015**, 7, 60-63	
849	Improved single-cell culture achieved using micromolding in capillaries technology coupled with poly (HEMA). **2015**, 9, 044106	9
848	Spatial manipulation with microfluidics. **2015**, 3, 39	21
847	Matrix-Immobilized BMP-2 on Microcontact Printed Fibronectin as an in vitro Tool to Study BMP-Mediated Signaling and Cell Migration. **2015**, 3, 62	23
846	Rapid Fabrication of Hydrogel Microstructures Using UV-Induced Projection Printing. **2015**, 6, 1903-1913	32
845	Microengineered Conductive Elastomeric Electrodes for Long-Term Electrophysiological Measurements with Consistent Impedance under Stretch. **2015**, 15, 26906-20	15
844	Micropatterning strategies to engineer controlled cell and tissue architecture in vitro. **2015**, 58, 13-23	46
843	A Microfluidic Platform Containing Sidewall Microgrooves for Cell Positioning and Trapping. **2015**, 2, 4	2
842	The Design of Simple Bacterial Microarrays: Development towards Immobilizing Single Living Bacteria on Predefined Micro-Sized Spots on Patterned Surfaces. **2015**, 10, e0128162	12
841	. **2015**,	3
840	The Effect of Biomolecular Gradients on Mesenchymal Stem Cell Chondrogenesis under Shear Stress. **2015**, 6, 330-346	6
839	Inexpensive, rapid prototyping of microfluidic devices using overhead transparencies and a laser print, cut and laminate fabrication method. **2015**, 10, 875-86	83
838	Fluid Dynamics and Biofilm Removal Generated by Syringe-delivered and 2 Ultrasonic-assisted Irrigation Methods: A Novel Experimental Approach. **2015**, 41, 884-9	33
837	Selective Modification of Hydrophobic Paper Using a Surfactant for Protein Assay in Urine. **2015**, 44, 917-919	4
836	Core-shell hydrogel beads with extracellular matrix for tumor spheroid formation. **2015**, 9, 024118	22
835	Microfluidic system for high-throughput immunoglobulin-E analysis from clinical serum samples. **2015**, 143, 83-89	6
834	Surface topography enhances differentiation of mesenchymal stem cells towards osteogenic and adipogenic lineages. **2015**, 61, 316-26	244

833	Photoinduced self-assembly of carboxylic acid-terminated lamellar silsesquioxane: highly functional films for attaching and patterning amino-based ligands. **2015**, 5, 45703-45709	2
832	Exploiting lipopolysaccharide-induced deformation of lipid bilayers to modify membrane composition and generate two-dimensional geometric membrane array patterns. **2015**, 5, 10331	14
831	Integration of biosensors based on microfluidic: a review. **2015**, 35, 190-199	18
830	E. coli DH5 cell response to a sudden change in microfluidic chemical environment. **2015**, 2015, 3213-6	2
829	Microfluidic wound model for studying the behaviors of Pseudomonas aeruginosa in polymicrobial biofilms. **2015**, 112, 2351-9	16
828	Involvement of flocculin in negative potential-applied ITO electrode adhesion of yeast cells. **2015**, 15,	6
827	Nanoscale patterning of poly (L-lactic acid) films with nanoimprinting methods. **2015**,	1
826	Non-photolithographic plastic-mold-based fabrication of cylindrical and multi-tiered poly(dimethylsiloxane) microchannels for biomimetic lab-on-a-chip applications. **2015**, 5, 100905-100911	15
825	Manufacturing of microcirculation phantoms using rapid prototyping technologies. **2015**, 2015, 5908-11	5
824	A genetic variant of cortactin linked to acute lung injury impairs lamellipodia dynamics and endothelial wound healing. **2015**, 309, L983-94	7
823	Biomimetic cardiac microsystems for pathophysiological studies and drug screens. **2015**, 20, 96-106	15
822	On importance of surface forces in a microfluidic fluidized bed. **2015**, 126, 143-149	17
821	Organ Printing. **2015**, 333-347	5
820	3D Printing and Patterning Vasculature in Engineered Tissues. **2015**, 171-189	
819	Capillarity Guided Patterning of Microliquids. **2015**, 11, 2789-97	28
818	Fabrication of multi-well chips for spheroid cultures and implantable constructs through rapid prototyping techniques. **2015**, 112, 1457-71	15
817	Controlled rotation and vibration of patterned cell clusters using dielectrophoresis. **2015**, 87, 2389-95	21
816	Alginate core-shell beads for simplified three-dimensional tumor spheroid culture and drug screening. **2015**, 17, 33	44

815	Solvent-transfer assisted photolithography of high-density and high-aspect-ratio superhydrophobic micropillar arrays. **2015**, 25, 025005		10
814	Chemotaxis by natural populations of coral reef bacteria. **2015**, 9, 1764-77		42
813	Coalescence with Droplets Caused Acceleration of the Liquid Movement in Microchannels. **2015**, 54, 1161-1169		3
812	Synergistic effects of soil microstructure and bacterial EPS on drying rate in emulated soil micromodels. **2015**, 83, 116-124		63
811	Hybrid elastomer-nanotube matrix for hydrophobic surface functionalization. **2015**, 29, 532-542		0
810	Nanopatterned Surfaces for Stem-Cell Engineering. **2015**, 97-122		
809	Flow-driven waves and phase-locked self-organization in quasi-one-dimensional colonies of Dictyostelium discoideum. **2015**, 114, 018103		8
808	High purity microfluidic sorting and analysis of circulating tumor cells: towards routine mutation detection. *Lab on A Chip*, **2015**, 15, 2090-101	7.2	50
807	Tissue-specific mechanical and geometrical control of cell viability and actin cytoskeleton alignment. **2014**, 4, 6160		29
806	The Continuous Exudation of Micro-Meniscus Capsules by Polymer Perspiration. **2015**, 2, 1400474		4
805	A microscale approach for simple and rapid monitoring of cell growth and lipid accumulation in Neochloris oleoabundans. **2015**, 38, 2035-43		6
804	Ultrafast Spreading Effect Induced Rapid Cell Trapping into Porous Scaffold with Superhydrophilic Surface. **2015**, 7, 17545-51		10
803	Recent advances and future applications of microfluidic live-cell microarrays. **2015**, 33, 948-61		47
802	Hydrodynamic Trapping of Swimming Bacteria by Convex Walls. **2015**, 114, 258104		81
801	Co-detection and sequencing of genes and transcripts from the same single cells facilitated by a microfluidics platform. **2014**, 4, 6485		45
800	3D bio-etching of a complex composite-like embryonic tissue. *Lab on A Chip*, **2015**, 15, 3293-9	7.2	4
799	Quantitative Super-Resolution Microscopy of Nanopipette-Deposited Fluorescent Patterns. **2015**, 9, 8122-30		18
798	A microfluidic droplet digital PCR for simultaneous detection of pathogenic Escherichia coli O157 and Listeria monocytogenes. **2015**, 74, 770-7		107

797	Real-time monitoring of cell migration, phagocytosis and cell surface receptor dynamics using a novel, live-cell opto-microfluidic technique. **2015**, 872, 95-9		5
796	Novel micropatterns mechanically control fibrotic reactions at the surface of silicone implants. **2015**, 54, 136-47		23
795	Photonics and plasmonics go viral: self-assembly of hierarchical metamaterials. **2015**, 26, 129-141		10
794	A 3D microfluidic device fabrication method using thermopress bonding with multiple layers of polystyrene film. **2015**, 25, 065005		8
793	Passive microfluidic chamber for long-term imaging of axon guidance in response to soluble gradients. *Lab on A Chip*, **2015**, 15, 2781-9	7.2	44
792	Microfluidics for Sperm Selection. **2015**, 51-58		3
791	Microfluidic and Compartmentalized Platforms for Neurobiological Research. **2015**,		0
790	Organs-on-chips at the frontiers of drug discovery. **2015**, 14, 248-60		765
789	Spectrum-Integral Talbot Effect for UV Photolithography With Extended DOF. **2015**, 27, 2201-2204		5
788	Chitosan grafted low molecular weight polylactic acid for protein encapsulation and burst effect reduction. **2015**, 496, 912-21		22
787	Microfabrication of Cell-Laden Hydrogels for Engineering Mineralized and Load Bearing Tissues. **2015**, 881, 15-31		4
786	Current Trends and Challenges in Biointerfaces Science and Engineering. **2015**, 6, 161-86		24
785	Biology in Stem Cell Niche. **2015**,		
784	Multienzyme Inkjet Printed 2D Arrays. **2015**, 7, 17985-92		21
783	Microfluidic reflow pumps. **2015**, 9, 044104		2
782	Vacuum-driven power-free microfluidics utilizing the gas solubility or permeability of polydimethylsiloxane (PDMS). *Lab on A Chip*, **2015**, 15, 3962-79	7.2	78
781	Rapid manufacture of modifiable 2.5-dimensional (2.5D) microstructures for capillary force-driven fluidic velocity control. **2015**, 5, 70737-70742		11
780	An adaptable stage perfusion incubator for the controlled cultivation of C2C12 myoblasts. **2015**, 140, 127-33		8

779	Soft Lithography Using Nectar Droplets. **2015**, 31, 13155-64		9
778	Platforms for Engineering Biomedical Experiments. **2015**, 9, 1218-1228		1
777	High-throughput blood cell focusing and plasma isolation using spiral inertial microfluidic devices. **2015**, 17, 110		46
776	Conformal nanopatterning of extracellular matrix proteins onto topographically complex surfaces. **2015**, 12, 134-6		52
775	A capillary-endothelium-mimetic microfluidic chip for the study of immune responses. **2015**, 209, 470-477		12
774	Vascular Morphogenesis. **2015**,		7
773	Methods for Nano/Micropatterning of Substrates: Toward Stem Cells Differentiation. **2015**, 64, 338-353		8
772	Review of methods to probe single cell metabolism and bioenergetics. **2015**, 27, 115-135		69
771	Field effect transistor with integrated microfluidic channel as pH sensor. **2015**, 21, 289-294		2
770	Surface modification of PDMS microfluidic devices by controlled sulfuric acid treatment and the application in chip electrophoresis. **2015**, 36, 449-56		20
769	Dynamics of viscoelastic fluid droplet under very low interfacial tension in a serpentine T-junction microchannel. *Microfluidics and Nanofluidics*, **2015**, 18, 1007-1021	2.8	11
768	Non-Invasive Sperm Selection for In Vitro Fertilization. **2015**,		3
767	A cost-effective Z-folding controlled liquid handling microfluidic paper analysis device for pathogen detection via ATP quantification. **2015**, 63, 379-383		50
766	NeuroArray: a universal interface for patterning and interrogating neural circuitry with single cell resolution. **2014**, 4, 4784		39
765	. **2016**,		
764	Compartmentalized Platforms for Neuro-Pharmacological Research. **2016**, 14, 72-86		19
763	Nano- and microstructured materials for in vitro studies of the physiology of vascular cells. **2016**, 7, 1620-1641		35
762	Low-Cost MEMS Technologies. **2016**,		5

761	Polymeric nanoparticles for gene delivery. **2016**, 147-188		3
760	Cells and Organs on Chips: A Revolutionary Platform for Biomedicine. **2016**,		5
759	A Novel Fabrication Technique for Liquid-Tight Microchannels by Combination of a Paraffin Polymer and a Photo-Curable Silicone Elastomer. **2016**, 9,		5
758	Microfluidic Device to Measure the Speed of Using the Resistance Change of the Flexible Electrode. **2016**, 7,		6
757	Rapid Capture and Analysis of Airborne Staphylococcus aureus in the Hospital Using a Microfluidic Chip. **2016**, 7,		8
756	A Rapid Prototyping Technique for Microfluidics with High Robustness and Flexibility. **2016**, 7,		7
755	Comparison of Chip Inlet Geometry in Microfluidic Devices for Cell Studies. *Molecules*, **2016**, 21,	4.8	6
754	A Microfluidic Channel Method for Rapid Drug-Susceptibility Testing of Pseudomonas aeruginosa. **2016**, 11, e0148797		42
753	Lipid Bilayer Patterns Fabrication by One-Photon Lithography. **2016**, 37-48		1
752	Rapid Diagnosis by Microfluidic Techniques. **2016**,		1
751	Immobilized WNT Proteins Act as a Stem Cell Niche for Tissue Engineering. **2016**, 7, 126-37		17
750	The use of substrate materials and topography to modify growth patterns and rates of differentiation of muscle cells. **2016**, 104, 1638-45		17
749	Athermal Azobenzene-Based Nanoimprint Lithography. **2016**, 28, 2624-8		38
748	High-Throughput Microfluidic Device for LAMP Analysis of Airborne Bacteria. **2016**, 1, 958-962		24
747	Advancing Tissue Engineering: A Tale of Nano-, Micro-, and Macroscale Integration. **2016**, 12, 2130-45		49
746	Backfilling-Free Strategy for Biopatterning on Intrinsically Dual-Functionalized Poly[2-Aminoethyl Methacrylate-co-Oligo(Ethylene Glycol) Methacrylate] Films. **2016**, 11, 2057-64		5
745	Fabrication of Thickness-Controllable Micropatterned Polyelectrolyte-Film/Nanoparticle Surfaces by Using the Plasma Oxidation Method. **2016**, 11, 1059-64		1
744	Tissue culture on a chip: Developmental biology applications of self-organized capillary networks in microfluidic devices. **2016**, 58, 505-15		10

743	An optical microfluidic platform for spatiotemporal biofilm treatment monitoring. **2016**, 26, 015013	8
742	Applying Physiologically Relevant Strains to Tenocytes in an In Vitro Cell Device Induces In Vivo Like Behaviors. **2016**, 138,	9
741	Vacuum-free photolithographic patterning of conducting polymer film. **2016**, 11, 807-810	1
740	Measurement of concentration distribution in endothelial surface layer using super resolution LIF technique. **2016**, 82, 15-00404-15-00404	
739	Encyclopedia of Nanotechnology. **2016**, 2157-2167	
738	A high throughput approach for analysis of cell nuclear deformability at single cell level. **2016**, 6, 36917	25
737	Encyclopedia of Nanotechnology. **2016**, 1937-1946	
736	Encyclopedia of Nanotechnology. **2016**, 2010-2019	
735	Encyclopedia of Nanotechnology. **2016**, 1903-1903	
734	Encyclopedia of Nanotechnology. **2016**, 2125-2128	
733	A cost-effective micromilling platform for rapid prototyping of microdevices. **2016**, 4, 234-239	16
732	Silica Sol-Gel Patterned Surfaces Based on Dip-Pen Nanolithography and Microstamping: A Comparison in Resolution and Throughput. **2016**, 720, 264-268	3
731	Concurrent shear stress and chemical stimulation of mechano-sensitive cells by discontinuous dielectrophoresis. **2016**, 10, 024117	9
730	Screening applications in drug discovery based on microfluidic technology. **2016**, 10, 011502	32
729	Encyclopedia of Nanotechnology. **2016**, 2137-2137	
728	Encyclopedia of Nanotechnology. **2016**, 2285-2285	
727	Encyclopedia of Nanotechnology. **2016**, 2028-2028	
726	Encyclopedia of Nanotechnology. **2016**, 2244-2254	

725	Encyclopedia of Nanotechnology. **2016**, 2254-2254		
724	Microfluidic co-culture system for cancer migratory analysis and anti-metastatic drugs screening. **2016**, 6, 35544		42
723	Tissue Engineering Scaffolds for 3D Cell Culture. **2016**, 249-268		6
722	Towards Reliable Organs-on-Chips and Humans-on-Chips. **2016**, 389-408		1
721	Micropatterned Hydrogel Surface with High-Aspect-Ratio Features for Cell Guidance and Tissue Growth. **2016**, 8, 21939-45		41
720	Microfluidic Methods in Single Cell Biology. **2016**, 19-54		
719	Acupuncture Sample Injection for Microchip Capillary Electrophoresis and Electrokinetic Chromatography. **2016**, 88, 4629-34		8
718	Microfluidics for High-Throughput Quantitative Studies of Early Development. *Annual Review of Biomedical Engineering*, **2016**, 18, 285-309	12	11
717	Microsystems for Enhanced Control of Cell Behavior. **2016**,		5
716	Design of virus-based nanomaterials for medicine, biotechnology, and energy. **2016**, 45, 4074-126		241
715	From square to circular polymeric microchannels by spin coating technology: a low cost platform for endothelial cell culture. **2016**, 8, 025005		22
714	Magnetic Nickel iron Electroformed Trap (MagNET): a master/replica fabrication strategy for ultra-high throughput (>100 mL h(-1)) immunomagnetic sorting. *Lab on A Chip*, **2016**, 16, 3049-57	7.2	5
713	3D Printed Tissue Models: Present and Future. **2016**, 2, 1722-1731		102
712	Three-dimensional models for studying development and disease: moving on from organisms to organs-on-a-chip and organoids. **2016**, 8, 672-83		73
711	Investigation of the antimicrobial activity of soy peptides by developing a high throughput drug screening assay. **2016**, 6, 149-157		16
710	Microfluidic Platform with In-Chip Electrophoresis Coupled to Mass Spectrometry for Monitoring Neurochemical Release from Nerve Cells. **2016**, 88, 5338-44		23
709	Measuring cell-generated forces: a guide to the available tools. **2016**, 13, 415-23		274
708	Implantable tissue isolation chambers for analyzing tumor dynamics in vivo. *Lab on A Chip*, **2016**, 16, 1840-51	7.2	6

707	An on-demand gas segmented flow generator with high spatiotemporal resolution for in vivo analysis of neuronal response in C. elegans. *Lab on A Chip*, **2016**, 16, 4020-4027	7.2	9
706	Three-Dimensional Soft Material Micropatterning via Direct Laser Lithography of Flexible Molds. **2016**, 8, 25019-23		19
705	Isolation of magnetically tagged cancer cells through an integrated magnetofluidic device. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	7
704	Study of Chemotaxis and Cell-Cell Interactions in Cancer with Microfluidic Devices. **2016**, 570, 19-45		9
703	Multiplex cell microarrays for high-throughput screening. *Lab on A Chip*, **2016**, 16, 4248-4262	7.2	20
702	Hierarchical structured polymers for light-absorption enhancement of silicon-based solar power systems. **2016**, 6, 55159-55166		10
701	Standard Reticle Slide To Objectively Evaluate Spatial Resolution and Instrument Performance in Imaging Mass Spectrometry. **2016**, 88, 7302-11		7
700	Recent advancements in regenerative dentistry: A review. **2016**, 69, 1383-90		37
699	Preparation of HCPT-Loaded Nanoneedles with Pointed Ends for Highly Efficient Cancer Chemotherapy. **2016**, 11, 294		8
698	Creation of cell micropatterns using a newly developed gel micromachining technique. **2016**, 8, 035006		4
697	A microfluidic chip for studying the reproduction of Enteromorpha prolifera. **2016**, 160, 577-585		3
696	Mixed monolayers of alkane thiols with polar terminal group on gold: Investigation of structure dependent surface properties. **2016**, 484, 279-290		10
695	Phenotypic Heterogeneity in Mycobacterium tuberculosis. **2016**, 4,		34
694	Rapid assembly of multilayer microfluidic structures via 3D-printed transfer molding and bonding. **2016**, 2, 16063		56
693	Red blood cell phase separation in symmetric and asymmetric microchannel networks: effect of capillary dilation and inflow velocity. **2016**, 6, 36763		23
692	Inkjet printing on transparency films for reagent storage with polyester toner microdevices. *Analytical Methods*, **2016**, 8, 7061-7068	3.2	8
691	Nanoscale patterning of biopolymers for functional biosurfaces and controlled drug release. **2016**, 8, 18654-18664		10
690	Microfluidic Systems for Whole-Animal Screening with C. elegans. **2016**, 245-272		3

689	Modeling Microvascular Disease. **2016**, 105-126		
688	Towards scanning probe lithography-based 4D nanoprinting by advancing surface chemistry, nanopatterning strategies, and characterization protocols. **2016**, 45, 6289-6310		35
687	A combined top-down/bottom-up approach to structuring multi-sensing zones on a thin film and the application to SPR sensors. **2016**, 27, 345302		4
686	Microfluidics Overview. **2016**, 33-83		4
685	Microfluidic model of the platelet-generating organ: beyond bone marrow biomimetics. **2016**, 6, 21700		46
684	Microfluidic Air Sampler for Highly Efficient Bacterial Aerosol Collection and Identification. **2016**, 88, 11504-11512		17
683	Viscoelastic lithography for fabricating self-organizing soft micro-honeycomb structures with ultra-high aspect ratios. *Nature Communications*, **2016**, 7, 11269	17.4	29
682	Microfluidics for bacterial imaging. **2016**, 43, 69-111		11
681	Generation and Application of 3D Culture Systems in Human Drug Discovery and Medicine. **2016**, 265-287		1
680	Fabricating small-scale, curved, polymeric structures for biological applications using a combination of photocurable/thermocurable polydimethylsiloxane and phase interactions. **2016**, 122, 1		1
679	How Escherichia coli lands and forms cell clusters on a surface: a new role of surface topography. **2016**, 6, 29516		40
678	Mikrosystemtechnik. **2016**,		4
677	Depth-of-Focus Determination for Talbot Lithography of Large-Scale Free-Standing Periodic Features. **2016**, 28, 2491-2494		2
676	Effects of Morphology Constraint on Electrophysiological Properties of Cortical Neurons. **2016**, 6, 23086		11
675	Designing Microfluidic Devices for Studying Cellular Responses Under Single or Coexisting Chemical/Electrical/Shear Stress Stimuli. **2016**,		2
674	Numerical investigation of dynamic microorgan devices as drug screening platforms. Part I: Macroscale modeling approach & validation. **2016**, 113, 612-22		8
673	Effect of gold nanoparticles on thermal gradient generation and thermotaxis of E. coli cells in microfluidic device. **2016**, 18, 53		5
672	Capillary driven flow of polydimethylsiloxane in open rectangular microchannels. **2016**, 12, 5818-23		16

671	Protein patterns template arrays of magnetic nanoparticles. **2016**, 6, 57048-57056		4
670	A strategy for rapid and facile fabrication of controlled, layered blood vessel-like structures. **2016**, 6, 55054-55063		15
669	Optimizing micropattern geometries for cell shape and migration with genetic algorithms. **2016**, 8, 741-50		7
668	Lab on a chip-based hepatic sinusoidal system simulator for optimal primary hepatocyte culture. **2016**, 18, 58		12
667	Directly nanopatternable nanoporous titania Application to cell growth engineering. **2016**, 155, 102-106		2
666	Influence of surface forces and wall effects on the minimum fluidization velocity of liquid-solid micro-fluidized beds. **2016**, 304, 55-62		20
665	Vesicles-on-a-chip: A universal microfluidic platform for the assembly of liposomes and polymersomes. **2016**, 39, 59		53
664	An HF-Free Etching of SiO2 for Soft Lithography. **2016**, 15, 666-670		1
663	Organ-on-a-Chip Systems: Microengineering to Biomimic Living Systems. **2016**, 12, 2253-82		176
662	Transfer molding processes for nanoscale patterning of poly-L-lactic acid (PLLA) films. **2016**,		
661	Deterministic sequential isolation of floating cancer cells under continuous flow. *Lab on A Chip*, **2016**, 16, 2813-9	7.2	17
660	Volumetric monitoring of aqueous two phase system droplets using time-lapse optical coherence tomography. **2016**, 13, 025606		4
659	A microfluidic device for studying the production of reactive oxygen species and the migration in lung cancer cells under single or coexisting chemical/electrical stimulation. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	9
658	Functional protein micropatterning for drug design and discovery. **2016**, 11, 105-19		14
657	Advances and Challenges in Recapitulating Human Pulmonary Systems: At the Cusp of Biology and Materials. **2016**, 2, 473-488		21
656	. **2016**, 35, 559-572		17
655	Microfluidic fabrication of stimuli-responsive microdroplets for acoustic and optical droplet vaporization. **2016**, 4, 2723-2730		10
654	Polymers. **2016**,		3

653	An integrated microfluidic chip for immunomagnetic detection and isolation of rare prostate cancer cells from blood. **2016**, 18, 22		22
652	A review on the importance of surface coating of micro/nano-mold in micro/nano-molding processes. **2016**, 26, 013002		40
651	Microbioreactors. **2016**, 99-152		7
650	Hydrogels in Regenerative Medicine. **2016**, 1-52		11
649	A routability-driven flow routing algorithm for programmable microfluidic devices. **2016**,		9
648	3D printing: an emerging tool for novel microfluidics and lab-on-a-chip applications. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	179
647	Quantitative Analysis of Dendritic Cell Haptotaxis. **2016**, 570, 567-81		8
646	Regenerated bacterial cellulose microfluidic column for glycoproteins separation. **2016**, 137, 271-276		5
645	Microdroplet photobioreactor for the photoautotrophic culture of microalgal cells. **2016**, 141, 989-98		25
644	Ultrasensitive, Multiplex Raman Frequency Shift Immunoassay of Liver Cancer Biomarkers in Physiological Media. **2016**, 10, 871-9		77
643	Biomedical microfluidic devices by using low-cost fabrication techniques: A review. **2016**, 49, 2280-2292		178
642	Integrated Circuit-Based Biofabrication with Common Biomaterials for Probing Cellular Biomechanics. **2016**, 34, 171-186		4
641	Microarray Technology. **2016**,		3
640	Cell Microarrays for Biomedical Applications. **2016**, 1368, 273-91		8
639	Microfluidics for rapid detection of isocitrate dehydrogenase 1 mutation for intraoperative application. **2016**, 124, 1611-8		6
638	Microfabrication of Patterned Co-cultures for Controllable Cell–Cell Interfaces. **2016**, 47-67		2
637	Spatial Patterning of Stem Cells to Engineer Microvascular Networks. **2016**, 143-166		
636	Microscale Approaches for Molecular Regulation of Skeletal Development. **2016**, 167-193		

635	Towards nanopatterning by femtosecond laser ablation of pre-stretched elastomers. **2016**, 374, 151-156		8
634	The Study of Cell Motility by Cell Traction Force Microscopy (CTFM). **2016**, 1365, 301-13		2
633	Preface. **2016**, 1365, v-vi		3
632	Analysis of reaction kinetics during chemostat cultivation of Saccharomyces cerevisiae using a multiphase microreactor. **2016**, 105, 220-229		18
631	Co-fabrication of chitosan and epoxy photoresist to form microwell arrays with permeable hydrogel bottoms. **2016**, 74, 77-88		9
630	Microscale Technologies for Cell Engineering. **2016**,		3
629	Fluid shear stress activates YAP1 to promote cancer cell motility. *Nature Communications*, **2017**, 8, 14122	17.4	120
628	One-step micromolding of complex 3D microchambers for single-cell analysis. *Lab on A Chip*, **2017**, 17, 647-652	7.2	4
627	Paper-based analytical devices for clinical diagnosis: recent advances in the fabrication techniques and sensing mechanisms. **2017**, 17, 351-366		160
626	Microstructured Blood Vessel Surrogates Reveal Structural Tropism of Motile Malaria Parasites. **2017**, 6, 1601178		11
625	Logic digital fluidic in miniaturized functional devices: Perspective to the next generation of microfluidic lab-on-chips. **2017**, 38, 953-976		30
624	Controlling the morphology and outgrowth of nerve and neuroglial cells: The effect of surface topography. **2017**, 51, 21-52		125
623	Microfabricated tools for quantitative plant biology. **2017**, 142, 835-848		7
622	Enabling Microfluidics: from Clean Rooms to Makerspaces. **2017**, 35, 383-392		83
621	Detection of Papaverine for the Possible Identification of Illicit Opium Cultivation. **2017**, 89, 1684-1688		15
620	Direct Fabrication of Micro/Nano-Patterned Surfaces by Vertical-Directional Photofluidization of Azobenzene Materials. **2017**, 11, 1320-1327		44
619	Preparation and characterization of a packed bead immobilized trypsin reactor integrated into a PDMS microfluidic chip for rapid protein digestion. **2017**, 166, 275-283		28
618	A microfluidic device for isolation and characterization of transendothelial migrating cancer cells. **2017**, 11, 014105		25

617	Natural-Based Hydrogels: From Processing to Applications. **2017**, 1-27		5
616	Microchip device with parallel operation for bacterial chemotactic analysis. **2017**, 245, 695-701		
615	Rapid prototyping of cyclic olefin copolymer (COC) microfluidic devices. **2017**, 247, 940-949		33
614	Collective cell migration: a physics perspective. **2017**, 80, 076601		111
613	Culture and Sampling of Primary Adipose Tissue in Practical Microfluidic Systems. **2017**, 1566, 185-201		11
612	Practical strategy to realistically measure the swelling ratio of poly(dimethylsiloxane) without underestimation due to the solvent volatility. **2017**, 113, 187-192		3
611	Probing the biology of cell boundary conditions through confinement of Xenopus cell-free cytoplasmic extracts. **2017**, 55, e23013		3
610	Fabrication of functional 3D multi-level microstructures on transparent substrates by one step back-side UV photolithography. **2017**, 7, 13353-13361		13
609	Microfluidics: From crystallization to serial time-resolved crystallography. **2017**, 4, 032202		23
608	A microfluidic diode for sorting and immobilization of Caenorhabditis elegans. **2017**, 19, 38		6
607	Conditioning lab on PCB to control temperature and mix fluids at the microscale for biomedical applications. **2017**,		1
606	Surface-Sensitive and Surface-Specific Ultrafast Two-Dimensional Vibrational Spectroscopy. **2017**, 117, 10623-10664		95
605	Multiplexed single cell protein expression analysis in solid tumours using a miniaturised microfluidic assay. **2017**, 3, 024003		9
604	Label-free detection of aggregated platelets in blood by machine-learning-aided optofluidic time-stretch microscopy. *Lab on A Chip*, **2017**, 17, 2426-2434	7.2	42
603	Microfabricated platforms to quantitatively investigate cellular behavior under the influence of chemical gradients. **2017**, 3, 035023		1
602	Printing Functional Protein Nanodots on Soft Elastomers: From Transfer Mechanism to Cell Mechanosensing. **2017**, 17, 4284-4290		6
601	A magneto-fluidic nanoparticle trapping platform for surface-enhanced Raman spectroscopy. **2017**, 11, 034116		2
600	Hemodynamic studies of platelet thrombosis using microfluidics. **2017**, 28, 427-433		20

599	Sitting Phase Monolayers of Polymerizable Phospholipids Create Dimensional, Molecular-Scale Wetting Control for Scalable Solution-Based Patterning of Layered Materials. **2017**, 9, 19326-19334		15
598	Lateral trapezoid microfluidic platform for investigating mechanotransduction of cells to spatial shear stress gradients. **2017**, 251, 963-975		16
597	Development of an enzymatic reactor applying spontaneously adsorbed trypsin on the surface of a PDMS microfluidic device. **2017**, 409, 3573-3585		14
596	High-resolution spatiotemporal strain mapping reveals non-uniform deformation in micropatterned elastomers. **2017**, 27, 045008		4
595	New advances in probing cell-extracellular matrix interactions. **2017**, 9, 383-405		40
594	Device and programming abstractions for spatiotemporal control of active micro-particle swarms. *Lab on A Chip*, **2017**, 17, 1442-1451	7.2	19
593	Dynamic monitoring of membrane nanotubes formation induced by vaccinia virus on a high throughput microfluidic chip. **2017**, 7, 44835		6
592	Advances in on-chip vascularization. **2017**, 12, 285-302		81
591	Microbial competition in porous environments can select against rapid biofilm growth. **2017**, 114, E161-E170		76
590	Direct Creation of Biopatterns via a Combination of Laser-Based Techniques and Click Chemistry. **2017**, 33, 848-853		11
589	Long-Term Stable Poly(acrylamide) Brush Modified Transparent Microwells for Cell Attachment Studies in 3D. **2017**, 17, 1600451		6
588	Lithography-based methods to manufacture biomaterials at small scales. **2017**, 2, 1-14		54
587	Electrohydrodynamic printing as a method to micropattern large titanium implant surfaces with photocrosslinkable structures. **2017**, 3, 015002		1
586	High-Resolution Quantum Dot Photopatterning via Interference Lithography Assisted Microstamping. **2017**, 121, 13370-13380		11
585	A disposable microfluidic device with a reusable magnetophoretic functional substrate for isolation of circulating tumor cells. *Lab on A Chip*, **2017**, 17, 4113-4123	7.2	28
584	Rapid Fabrication of Multilayer Microfluidic Devices Using the Liquid Crystal Display-Based Stereolithography 3D Printing System. **2017**, 4, 156-164		30
583	In Vivo Anti-Biofilm and Anti-Bacterial Non-Leachable Coating Thermally Polymerized on Cylindrical Catheter. **2017**, 9, 36269-36280		69
582	Combinatorial Particle Patterning. **2017**, 27, 1703511		8

581	Beyond the bulk: disclosing the life of single microbial cells. **2017**, 41, 751-780		28
580	Simulation of the effects of oxygen carriers and scaffold geometry on oxygen distribution and cell growth in a channeled scaffold for engineering myocardium. **2017**, 294, 160-171		9
579	Why microfluidics? Merits and trends in chemical synthesis. *Lab on A Chip*, **2017**, 17, 3960-3978	7.2	130
578	A microfluidic trap array for longitudinal monitoring and multi-modal phenotypic analysis of individual stem cell aggregates. *Lab on A Chip*, **2017**, 17, 3634-3642	7.2	16
577	Experimental study of efficient mixing in a micro-fluidized bed. **2017**, 127, 1642-1649		5
576	Magnetophoretic sorting of microdroplets with different microalgal cell densities for rapid isolation of fast growing strains. **2017**, 7, 10390		26
575	Mechanical behavior of PDMS at low pressure. **2017**, 4, 075306		2
574	The application of a microfluidic reactor including spontaneously adsorbed trypsin for rapid protein digestion of human tear samples. **2017**, 11, 1700055		4
573	Quantifying time-varying cellular secretions with local linear models. **2017**, 3, e00340		
572	Localization of Short-Chain Polyphosphate Enhances its Ability to Clot Flowing Blood Plasma. **2017**, 7, 42119		8
571	Microfluidic Platform with Multiplexed Electronic Detection for Spatial Tracking of Particles. **2017**,		3
570	Fabrication, chemical modification, and topographical patterning of reactive gels assembled from azlactone-functionalized polymers and a diamine. **2017**, 55, 3185-3194		5
569	3D-Printed pHEMA Materials for Topographical and Biochemical Modulation of Dorsal Root Ganglion Cell Response. **2017**, 9, 30318-30328		24
568	Mimicking Embedded Vasculature Structure for 3D Cancer on a Chip Approaches through Micromilling. **2017**, 7, 16724		18
567	Preparation and biocompatibility of polyester films grafted with functional mPEG copolymers. **2017**, 33, 847-852		1
566	Microfluidic Devices and Their Applications. **2017**, 487-536		16
565	A microfluidic in-line ELISA for measuring secreted protein under perfusion. **2017**, 19, 101		7
564	Toward establishing model organisms for marine protists: Successful transfection protocols for Parabodo caudatus (Kinetoplastida: Excavata). **2017**, 19, 3487-3499		8

563	Multilayer microfluidic systems with indium-tin-oxide microelectrodes for studying biological cells. **2017**, 27, 075013	6
562	A New Method Without Organic Solvent to Targeted Nanodrug for Enhanced Anticancer Efficacy. **2017**, 12, 416	4
561	Pneumatically Actuated Soft Micromold Device for Fabricating Collagen and Matrigel Microparticles. **2017**, 4, 390-399	5
560	Chitosan for bone and cartilage regenerative engineering. **2017**, 33-72	3
559	Soft 3D-Printed Phantom of the Human Kidney with Collecting System. **2017**, 45, 963-972	96
558	Sensing photosynthetic herbicides in an electrochemical flow cell. **2017**, 132, 127-134	5
557	Photolithography-Based Substrate Microfabrication for Patterning Semaphorin 3A to Study Neuronal Development. **2017**, 1493, 321-343	9
556	Advances in digital polymerase chain reaction (dPCR) and its emerging biomedical applications. **2017**, 90, 459-474	145
555	Acupuncture injection for field amplified sample stacking and glass microchip-based capillary gel electrophoresis. **2017**, 38, 521-524	3
554	Design of PDMS membrane for CTC separation. **2017**,	
553	Membrane chips lithography for microfluidic hydrogel-based microstructures. **2017**,	
552	The effect of nanostructured surfaces on stem cell fate. **2017**, 567-589	2
551	Phenotypic Heterogeneity in Mycobacterium tuberculosis. **2017**, 671-697	1
550	Projection method for improving signal to noise ratio of localized surface plasmon resonance biosensors. **2017**, 8, 446-459	8
549	Investigation of Drug Cocktail Effects on Cancer Cell-Spheroids Using a Microfluidic Drug-Screening Assay. **2017**, 8, 167	12
548	Molecular Imprinting Techniques Used for the Preparation of Biosensors. **2017**, 17,	121
547	Smart devices. **2017**, 331-369	2
546	A Review of Structure Construction of Silk Fibroin Biomaterials from Single Structures to Multi-Level Structures. **2017**, 18,	228

545	Synthetic Microbial Ecology: Engineering Habitats for Modular Consortia. **2017**, 8, 1125	52
544	Acupuncture Injection Combined with Electrokinetic Injection for Polydimethylsiloxane Microfluidic Devices. **2017**, 2017, 7495348	
543	Microfluidics technology: future prospects for molecular diagnostics. **2017**, Volume 3, 3-17	5
542	Internal Laser Writing of High-Aspect-Ratio Microfluidic Structures in Silicate Glasses for Lab-on-a-Chip Applications. **2017**, 8, 59	14
541	Super-antiwetting with High Adhension Property of Pitcher Plant. **2017**, 08,	
540	Expanding the molecular-ruler process through vapor deposition of hexadecanethiol. **2017**, 8, 2339-2344	1
539	Microrobotic assembly of shape-controllable microstructures to perfusable 3D cell-laden microtissues. **2017**,	
538	Two distinct mechanisms upon absorption of volatile organic compounds into siloxane polymers. **2018**, 14, 2206-2218	5
537	Bioinspired Microfluidic Cooling. **2018**, 129-158	1
536	Developing Microfluidic Sensing Devices Using 3D Printing. **2018**, 3, 522-526	40
535	Chemotactic behavior of spermatozoa captured using a microfluidic chip. **2018**, 12, 024112	13
534	Review on methods of solving the refractive index–thickness coupling problem in digital holographic microscopy of biological cells. **2018**, 422, 8-16	14
533	Experimental and numerical study of platelets rolling on a von Willebrand factor-coated surface. **2018**, 55, 25-33	0
532	Stimuli-Responsive Nanostructured Surfaces for Biomedical Applications. **2018**, 203-245	1
531	Mechanistic understanding of tungsten oxide in-plane nanostructure growth via sequential infiltration synthesis. **2018**, 10, 3469-3479	18
530	A facile method for the fabrication of glass-PDMS-glass sandwich microfluidic devices by sacrificial molding. **2018**, 261, 364-371	11
529	Se-C Cleavage of Hexane Selenol at Steps on Au(111). **2018**, 34, 2630-2636	1
528	Chemistrode for High Temporal- and Spatial-Resolution Chemical Analysis. **2018**, 391-410	

527	Scalable and continuous fabrication of bio-inspired dry adhesives with a thermosetting polymer. **2018**, 14, 2586-2593		24
526	Automated fabrication of photopatterned gelatin hydrogels for organ-on-chips applications. **2018**, 10, 025004		35
525	Multifunctional microfluidic chip for optical nanoprobe based RNA detection - application to Chronic Myeloid Leukemia. **2018**, 8, 381		13
524	Fabrications of Noncoated Superhydrophobic Surfaces and Interfaces. **2018**, 85-115		
523	Photo-Reconfigurable Azopolymer Etch Mask: Photofluidization-Driven Reconfiguration and Edge Rectangularization. **2018**, 14, e1703250		7
522	Spherical network contraction forms microtubule asters in confinement. **2018**, 14, 901-909		21
521	Multifunctional Microwell Arrays for Single Cell Level Functional Analysis of Lymphocytes. **2018**, 29, 672-679		10
520	Control of the droplet generation by an infrared laser. **2018**, 8, 015302		6
519	Electrically Driven Microengineered Bioinspired Soft Robots. **2018**, 30, 1704189		94
518	Improved method for estimating adlayer thickness and bulk RI change for gold nanocrescent sensors. **2018**, 8, 6683		5
517	Rapid assembly of multilayer microfluidic structures. **2018**,		1
516	Microanalysis using surface modification and biphasic droplets. **2018**, 50, 699-709		4
515	Real-time monitoring of immune responses under pathogen invasion and drug interference by integrated microfluidic device coupled with worm-based biosensor. **2018**, 110, 233-238		14
514	High-throughput approaches for screening and analysis of cell behaviors. **2018**, 153, 85-101		35
513	Calcium-axonemal microtubuli interactions underlie mechanism(s) of primary cilia morphological changes. **2018**, 44, 53-80		2
512	Micro free flow electrophoresis. *Lab on A Chip*, **2017**, 18, 27-40	7.2	29
511	A microfabricated on-chip approach to the micropipette growth cone-turning assay. **2018**, 4, 015013		
510	Teflon microreactors for organic syntheses. **2018**, 255, 2274-2281		11

509	Organ-on-a-chip Systems. **2018**, 55-78	
508	Protein separation under a microfluidic regime. **2018**, 143, 606-619	17
507	Micropatterned Geometry Shape Oligodendrocyte and Microglia Plasticity. **2018**, 1727, 139-154	
506	Neurotrophic Factors. **2018**,	4
505	Particle-based immobilized enzymatic reactors in microfluidic chips. **2018**, 180, 211-228	19
504	Polymeric Biomaterials Based on Polylactide, Chitosan and Hydrogels in Medicine. **2018**, 119-147	
503	TAZ responds to fluid shear stress to regulate the cell cycle. **2018**, 17, 147-153	22
502	A nephron model for study of drug-induced acute kidney injury and assessment of drug-induced nephrotoxicity. **2018**, 155, 41-53	45
501	Functional polymer surfaces for controlling cell behaviors. **2018**, 21, 38-59	172
500	. **2018**,	7
499	Property Investigation of Replaceable PDMS Membrane as an Actuator in Microfluidic Device. **2018**, 7, 68	9
498	Controlled generation of cell□laden hydrogel microspheres with core□shell scaffold mimicking microenvironment of tumor. **2018**, 27, 128703	2
497	. **2018**,	0
496	The effect of the shape of a mesogenic group on the structure of supramolecular aggregates based on wedge-shaped and cone-shaped dendrons. **2018**, 67, 1547-1557	2
495	Cell biology at the interface of nanobiosensors and microfluidics. **2018**, 148, 203-227	4
494	Nanofibers for Smart Textiles. **2018**, 39-90	1
493	Vascularization Strategies for Peripheral Nerve Tissue Engineering. **2018**, 301, 1657-1667	44
492	Multifunctional self-assembled monolayers via microcontact printing and degas-driven flow guided patterning. **2018**, 8, 16763	14

491	Research on the Methods for the Mass Production of Multi-Scale Organs-On-Chips. **2018**, 10,		7
490	3D Printed Microfluidic Mixers-A Comparative Study on Mixing Unit Performances. **2019**, 15, e1804326		30
489	Microfluidic fabrication of porous polydimethylsiloxane microparticles for the treatment of toluene-contaminated water. *Microfluidics and Nanofluidics*, **2018**, 22, 1	2.8	10
488	Microfluidic Devices for Drug Assays. **2018**, 7,		30
487	Ultrafast water harvesting and transport in hierarchical microchannels. **2018**, 17, 935-942		200
486	Cell Culture Technology. **2018**,		5
485	Organs-on-a-Chip Module: A Review from the Development and Applications Perspective. **2018**, 9,		97
484	Confinement-Induced Stiffening of Elastomer Thin Films. **2018**, 122, 10767-10773		6
483	CellSurface Interactions. **2018**, 107-128		
482	Controllable stress patterns over multi-generation timescale in microfluidic devices. **2018**, 147, 29-40		
481	Bio-Inspired Micropatterned Platforms Recapitulate 3D Physiological Morphologies of Bone and Dentinal Cells. **2018**, 5, 1801037		9
480	A novel approach to create an antibacterial surface using titanium dioxide and a combination of dip-pen nanolithography and soft lithography. **2018**, 8, 15818		28
479	Microfluidics and Nanofluidics: Science, Fabrication Technology (From Cleanrooms to 3D Printing) and Their Application to Chemical Analysis by Battery-Operated Microplasmas-On-Chips. **2018**,		3
478	Reconfigurable RGB dye lasers based on the laminar flow control in an optofluidic chip. **2018**, 43, 4461-4464		5
477	Modeling Host-Pathogen Interactions in the Context of the Microenvironment: Three-Dimensional Cell Culture Comes of Age. **2018**, 86,		75
476	Soft lithography based on photolithography and two-photon polymerization. *Microfluidics and Nanofluidics*, **2018**, 22, 1	2.8	27
475	Sequential deposition of microdroplets on patterned surfaces. **2018**, 14, 8709-8716		6
474	Extracellular matrix-based materials for regenerative medicine. **2018**, 3, 159-173		335

473	Consensus guidelines for the use and interpretation of angiogenesis assays. **2018**, 21, 425-532	285
472	Microfluidic system for modelling 3D tumour invasion into surrounding stroma and drug screening. **2018**, 10, 034102	15
471	Hollow Micropillar Array Method for High-Capacity Drug Screening on Filter-Grown Epithelial Cells. **2018**, 90, 7675-7681	6
470	Automated 3D-Printed Microfluidic Array for Rapid Nanomaterial-Enhanced Detection of Multiple Proteins. **2018**, 90, 7569-7577	34
469	Fabrication of Micropatterned Dipeptide Hydrogels by Acoustic Trapping of Stimulus-Responsive Coacervate Droplets. **2018**, 14, e1800739	26
468	Through the Looking Glass: Models for Inhalation Toxicology and Interindividual Variability in the Airway. **2018**, 4, 115-128	23
467	PiFlow: A biocompatible low-cost programmable dynamic flow pumping system utilizing a Raspberry Pi Zero and commercial piezoelectric pumps. **2018**, 4, e00034	5
466	Vascularized microfluidic platforms to mimic the tumor microenvironment. **2018**, 115, 2793-2806	34
465	Nanochannel-Assisted Perovskite Nanowires: From Growth Mechanisms to Photodetector Applications. **2018**, 12, 8406-8414	47
464	Dual-Responsive Self-Assembled Monolayer for Specific Capture and On-Demand Release of Live Cells. **2018**, 34, 8145-8153	5
463	Nanofabrication technologies to control cell and tissue function for biomedical applications. **2018**, 385-409	
462	Stem-Cell Microscale Platforms for Toxicology Screening. **2018**, 285-308	
461	Micro- and nanopatterning of biomaterial surfaces. **2018**, 67-78	4
460	Modeling Tissue Polarity in Context. **2018**, 430, 3613-3628	10
459	Controlled communication between physically separated bacterial populations in a microfluidic device. **2018**, 1, 97	12
458	Functional three-dimensional scaffolds for skeletal muscle tissue engineering. **2018**, 279-304	4
457	Carbon-Coated Nickel Nanoparticles: Effect on the Magnetic and Electric Properties of Composite Materials. **2018**, 8, 165	5
456	Pd-Functionalized, Suspended Graphene Nanosheet for Fast, Low-Energy Multimolecular Sensors. **2018**, 1, 3886-3894	12

455	Tubular Tissue Engineering Based on Microfluidics. **2018**, 53-66	
454	Generation of Well-Defined Micro/Nanoparticles via Advanced Manufacturing Techniques for Therapeutic Delivery. **2018**, 11,	13
453	A Visualization Technique of a Unique pH Distribution around an Ion Depletion Zone in a Microchannel by Using a Dual-Excitation Ratiometric Method. **2018**, 9,	6
452	Particle-Based Microfluidic Quartz Crystal Microbalance (QCM) Biosensing Utilizing Mass Amplification and Magnetic Bead Convection. **2018**, 9,	6
451	Novel Nano-Materials and Nano-Fabrication Techniques for Flexible Electronic Systems. **2018**, 9,	24
450	Patterned Nanobrush Nature Mimics with Unprecedented Water-Harvesting Efficiency. **2018**, 5, 1800667	15
449	Micropatterning of Au NPs on PEG Hydrogels Using Different Silanes To Control Cell Adhesion on the Nanocomposites. **2018**, 3, 7214-7223	6
448	Permeability and viscoelastic fracture of a model tumor under interstitial flow. **2018**, 14, 6386-6392	7
447	Wearable Technology for Chronic Wound Monitoring: Current Dressings, Advancements, and Future Prospects. **2018**, 6, 47	74
446	In Vitro Microscale Models for Embryogenesis. **2018**, 2, 1700235	4
445	Cross Channel Thread-Based Microfluidic Device for Separation of Food Dyes. **2018**, 95, 1000-1003	10
444	Grafting antibiofilm polymer hydrogel film onto catheter by SARA SI-ATRP. **2018**, 29, 2106-2123	10
443	Binary colloidal crystals (BCCs): Interactions, fabrication, and applications. **2018**, 261, 102-127	23
442	Patterning Hydrophobic Surfaces by Negative Microcontact Printing and Its Applications. **2018**, 14, e1802128	25
441	Custom Engineered Tissue Culture Molds from Laser-etched Masters. **2018**,	3
440	Microfluidics Approaches in Modern Developmental Biology. **2018**, 49, 146-158	3
439	3D Microcontact Printing for Combined Chemical and Topographical Patterning on Porous Cell Culture Membrane. **2018**, 10, 22857-22865	13
438	Poisson's ratio of PDMS thin films. **2018**, 69, 375-384	43

437	The magnetic properties of CoFeB and CoFeB/Ag nanodot arrays fabricated by a template transfer imprinting method. **2018**, 660, 301-305	9
436	Hierarchical Micro- and Nanopatterning of Metallic Glass to Engineer Cellular Responses. **2018**, 1, 51-58	10
435	Stem cell-based Lung-on-Chips: The best of both worlds?. **2019**, 140, 12-32	33
434	On the recent developments of insulator-based dielectrophoresis: A review. **2019**, 40, 358-375	72
433	Microtexture and the Cell/Biomaterial Interface: A Systematic Review and Meta-Analysis of Capsular Contracture and Prosthetic Breast Implants. **2019**, 39, 603-614	9
432	Surface Modification of Biomaterials. **2019**, 651-660	8
431	Capillary liquid bridge soft lithography for micro-patterning preparation based on SU-8 photoresist templates with special wettability.. **2019**, 9, 23986-23993	2
430	Electromagnetic fields alter the motility of metastatic breast cancer cells. **2019**, 2, 303	11
429	Biosensors on chip: A critical review from an aspect of micro/nanoscales. **2019**, 2, 198-219	11
428	Innovative Tools for Mechanobiology: Unraveling Outside-In and Inside-Out Mechanotransduction. **2019**, 7, 162	78
427	Mechanical characterization of single cells based on microfluidic techniques. **2019**, 117, 47-57	7
426	Sensor-free and Sensor-based Heart-on-a-chip Platform: A Review of Design and Applications. **2018** , 24, 5375-5385	6
425	Deciphering Biosignatures in Planetary Contexts. **2019**, 19, 1075-1102	33
424	A microfluidics-integrated impedance/surface acoustic resonance tandem sensor. **2019**, 25, 100291	4
423	Microfluidic Brain-on-a-Chip: Perspectives for Mimicking Neural System Disorders. **2019**, 56, 8489-8512	52
422	Open Microfluidic Capillary Systems. **2019**, 91, 8739-8750	43
421	Coupling Microfluidic Platforms, Microfabrication, and Tissue Engineered Scaffolds to Investigate Tumor Cells Mechanobiology. **2019**, 10,	7
420	Extracellular matrix micropatterning technology for whole cell cryogenic electron microscopy studies. **2019**, 29,	18

419	Quantitative characterization of viscoelastic fracture induced by time-dependent intratumoral pressure in a 3D model tumor. **2019**, 13, 054107		1
418	Brain-on-a-chip: A history of development and future perspective. **2019**, 13, 051301		49
417	Insect Solutions for Open Self-Cleaning Microfluidics. **2019**, 6, 1901516		1
416	pseudoQC: A Regression-Based Simulation Software for Correction and Normalization of Complex Metabolomics and Proteomics Datasets. **2019**, 19, e1900264		11
415	. **2019**,		1
414	Hydrogels used for Biomedical Applications. **2019**, 175-199		7
413	Microcontact Printing with Laser Direct Writing Carbonization for Facile Fabrication of Carbon-Based Ultrathin Disk Arrays and Ordered Holey Films. **2019**, 15, e1902819		4
412	A Neuromorphic Prosthesis to Restore Communication in Neuronal Networks. **2019**, 19, 402-414		18
411	Close-packed silane nanodot arrays by capillary nanostamping coupled with heterocyclic silane ring opening.. **2019**, 9, 24742-24750		8
410	Enhancement and control of neuron adhesion on polydimethylsiloxane for cell microengineering using a functionalized triblock polymer. *Lab on A Chip*, **2019**, 19, 3162-3167	7.2	4
409	In vitro metabolic zonation through oxygen gradient on a chip. **2019**, 9, 13557		23
408	Fundamentals of Differential Particle Inertial Focusing in Symmetric Sinusoidal Microchannels. **2019**, 91, 4077-4084		27
407	Quantitative surface-enhanced Raman spectroscopy chemical analysis using citrate as an in situ calibrant. **2019**, 144, 1818-1824		6
406	Study Effects of Drug Treatment and Physiological Physical Stimulation on Surfactant Protein Expression of Lung Epithelial Cells Using a Biomimetic Microfluidic Cell Culture Device. **2019**, 10,		1
405	Scaffolds for tendon tissue engineering. **2019**, 259-298		1
404	Organoids-on-a-chip. **2019**, 364, 960-965		249
403	Comparison of replica leaf surface materials for phyllosphere microbiology. **2019**, 14, e0218102		9
402	Pressure-driven flow focusing of two miscible liquids. *Physics of Fluids*, **2019**, 31, 062001	4.4	5

401	Quasi-3D morphology and modulation of focal adhesions of human adult stem cells through combinatorial concave elastomeric surfaces with varied stiffness. **2019**, 15, 5154-5162		3
400	The Stress-Chip: A microfluidic platform for stress analysis in Caenorhabditis elegans. **2019**, 14, e0216283		17
399	Large-scale and contact-free fabrication of microwell arrays based on electro-pressure of depositing ions. **2019**, 9, 045317		
398	Applications of Microfluidic Systems in Biology and Medicine. **2019**,		5
397	Effect of Chemical and Physical Modifications on the Wettability of Polydimethylsiloxane Surfaces. **2019**, 96, 1212-1217		7
396	Integrating Microfabrication into Biological Investigations: the Benefits of Interdisciplinarity. **2019**, 10,		5
395	Microfluidic Organs-on-Chips to Reconstitute Cellular Microenvironments. **2019**, 227-246		
394	Microfluidic analysis of heterotypic cellular interactions: A review of techniques and applications. **2019**, 117, 166-185		13
393	Colloidal Microfluidics. **2019**, 125-166		
392	Microfluidic Devices for Eye Irritation Tests of Cosmetics and Cosmetic Ingredients. **2019**, 13, 142-150		1
391	Hierarchically Patterned Polydopamine-Containing Membranes for Periodontal Tissue Engineering. **2019**, 13, 3830-3838		52
390	Microfluidic analysis of fentanyl-laced heroin samples by surface-enhanced Raman spectroscopy in a hydrophobic medium. **2019**, 144, 3080-3087		17
389	Non-contact monitoring of extra-cellular field potentials with a multi-electrode array. *Lab on A Chip*, **2019**, 19, 1448-1457	7.2	5
388	Rapid translocation of pluripotency-related transcription factors by external uniaxial forces. **2019**,		2
387	Advances in imprinting strategies for selective virus recognition a review. **2019**, 114, 218-232		40
386	Multiplexed PCR-Free Detection of MicroRNAs in Single Cancer Cells Using a DNA-Barcoded Microtrough Array Chip. **2019**, 10,		2
385	Modular Chamber Assembled with Cell-Replicated Surface for Capture of Cancer Cells. **2019**, 5, 2647-2656		3
384	Advanced Materials and Devices for the Regulation and Study of NK Cells. **2019**, 20,		7

383	Grow with the Flow: When Morphogenesis Meets Microfluidics. **2019**, 31, e1805764		30
382	Design and simulation of passive micromixers with ridges for enhanced efficiency. **2019**, 577, 012106		7
381	An Integrated Preprocessing Approach for Exploring Single-Cell Gene Expression in Rare Cells. **2019**, 9, 19758		1
380	A Soft Crawling Robot Inspired by Inchworms. **2019**,		1
379	High-throughput micropatterning platform reveals Nodal-dependent bisection of peri-gastrulation-associated versus preneurulation-associated fate patterning. **2019**, 17, e3000081		17
378	Remora-Inspired Reversible Adhesive for Underwater Applications. **2019**, 11, 47571-47576		14
377	Tetrafluoroethylene-Propylene Elastomer for Fabrication of Microfluidic Organs-on-Chips Resistant to Drug Absorption. **2019**, 10,		29
376	A microfluidic mammary gland coculture model using parallel 3D lumens for studying epithelial-endothelial migration in breast cancer. **2019**, 13, 064122		8
375	Rapid Fabrication of Custom Microfluidic Devices for Research and Educational Applications. **2019**,		0
374	Microfluidic systems for controlling stem cell microenvironments. **2019**, 31-63		6
373	Rapid and semiquantitative detection of Staphylococcus epidermidis in humor samples by microfluidic platform. **2019**, 278, 8-14		5
372	Primary Cell-Derived Intestinal Models: Recapitulating Physiology. **2019**, 37, 744-760		48
371	Rapid and inexpensive method for fabrication of multi-material multi-layer microfluidic devices. **2019**, 29, 015013		8
370	High efficiency single-cell capture based on microfluidics for single cell analysis. **2019**, 29, 035004		3
369	Bi-functionalization of glass surfaces with poly-l-lysine conjugated silica particles and polyethylene glycol for selective cellular attachment and proliferation. **2019**, 54, 2501-2513		1
368	MEMS Sensors for Automotive Applications: A Review. **2019**, 223-239		5
367	Sensors for Automotive and Aerospace Applications. **2019**,		4
366	A Novel Controllable Cell Array Printing Technique on Microfluidic Chips. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 2512-2520	5	8

365	Hierarchical Nanoparticle Assemblies Formed via One-Step Catalytic Stamp Pattern Transfer. **2019**, 11, 4667-4677		4
364	Optimizing Process Parameters in Commercial Micro-Stereolithography for Forming Emulsions and Polymer Microparticles in Nonplanar Microfluidic Devices. *Advanced Materials Technologies*, **2019**, 4, 1800408	6.8	23
363	Lab-on-a-chip techniques for high-throughput proteomics and drug discovery. **2019**, 371-422		3
362	Fabrication of honeycomb-structured protein arrays via one-step method. **2019**, 136, 47084		5
361	Metabolic Signaling. **2019**,		1
360	Determining the Intracellular Organization of Organelles. **2019**, 1862, 263-278		1
359	Molecularly Imprinted Polymers. **2019**, 119, 94-119		440
358	Studying the real-time interplay between triglyceride digestion and lipophilic micronutrient bioaccessibility using droplet microfluidics. 1 lab on a chip method. **2019**, 275, 523-529		17
357	. **2020**, 6, 609-623		6
356	A linear regime of hysteresis for calculating the dynamic contact angle under low capillary numbers with displacement experiments in microscale PDMS microchannels. **2020**, 560, 626-638		2
355	Optics and Fluidics. **2020**, 197-234		1
354	Engineering of Micro/Nano Biosystems. **2020**,		2
353	Design of a liquid cell toward three-dimensional imaging of unidirectionally-aligned particles in solution using X-ray free-electron lasers. **2020**, 22, 2622-2628		2
352	Comparison of Nail Polish Meth(Acrylates) (MA) Gel Photoresist and Vinyl Adhesive Paper for Low-Cost Microfluidics Fabrication. **2020**, 323-329		1
351	Materials Synthesis and Catalysis in Microfluidic Devices: Prebiotic Chemistry in Mineral Membranes. **2020**, 12, 63-74		16
350	Engineering of Hydrogel Materials with Perfusable Microchannels for Building Vascularized Tissues. **2020**, 16, e1902838		63
349	Customizing H3Sb3P2O14 nanosheet sensors by reversible vapor-phase amine intercalation. **2020**, 5, 74-81		1
348	Single photomask lithography for shape modulation of micropatterns. **2020**, 84, 196-201		5

347	Design of photocurable, biodegradable scaffolds for liver lobule regeneration via digital light process-additive manufacturing. **2020**, 12, 035024	11
346	Substrate curvature as a cue to guide spatiotemporal cell and tissue organization. **2020**, 232, 119739	71
345	A review of optical interferometry techniques for VOC detection. **2020**, 302, 111782	21
344	Automation of C. elegans lifespan measurement. **2020**, 4, 1-10	5
343	Micropatterned hydrogels and cell alignment enhance the odontogenic potential of stem cells from apical papilla in-vitro. **2020**, 36, 88-96	13
342	Polymeric Nanoparticles. **2020**, 303-324	14
341	Potential of Microfluidics and Lab-on-Chip Platforms to Improve Understanding of "" Protein Assembly and Behavior. **2020**, 8, 570692	1
340	Lab-on-a-Chip for Cardiovascular Physiology and Pathology. **2020**, 11,	6
339	Surface Patterning of Hydrogel Biomaterials to Probe and Direct Cell–Matrix Interactions. **2020**, 7, 2001198	15
338	Current strategies and opportunities to manufacture cells for modeling human lungs. **2020**, 161-162, 90-109	3
337	Biofabrication for neural tissue engineering applications. **2020**, 6, 100043	43
336	Surface Patterning. **2020**, 553-573	2
335	Vessel-on-a-chip models for studying microvascular physiology, transport, and function in vitro. **2021**, 320, C92-C105	7
334	Exploring microfluidics as a tool to evaluate the biological properties of a titanium alloy under dynamic conditions. **2020**, 8, 6309-6321	5
333	Biosensors for Studies on Adhesion-Mediated Cellular Responses to Their Microenvironment. **2020**, 8, 597950	2
332	Printable, Highly Sensitive Flexible Temperature Sensors for Human Body Temperature Monitoring: A Review. **2020**, 15, 200	38
331	Efficacy of a Nickel-Titanium Ultrasonic Instrument for Biofilm Removal in a Simulated Complex Root Canal. **2020**, 13,	2
330	Art-on-a-Chip: Preserving Microfluidic Chips for Visualization and Permanent Display. **2020**, 16, e2002035	1

329	Multiplexed blood-brain barrier organ-on-chip. *Lab on A Chip*, **2020**, 20, 3132-3143	7.2	13
328	Microtechnology-based methods for organoid models. **2020**, 6, 76		52
327	Effect of design geometry, exposure energy, cytophilic molecules, cell type and load in fabrication of single-cell arrays using micro-contact printing. **2020**, 10, 15213		4
326	Spatial heterogeneities shape the collective behavior of signaling amoeboid cells. **2020**, 13,		0
325	Toward Vasculature in Skeletal Muscle-on-a-Chip through Thermo-Responsive Sacrificial Templates. **2020**, 11,		6
324	Facile Fabrication Method of Conical Microwells Using Non-Uniform Photolithography. **2020**, 7, 2000981		4
323	A Simple Low-Temperature Glass Bonding Process with Surface Activation by Oxygen Plasma for Micro/Nanofluidic Devices. **2020**, 11,		5
322	Advanced Fabrication Techniques of Microengineered Physiological Systems. **2020**, 11,		8
321	Mechanical force-induced morphology changes in a human fungal pathogen. **2020**, 18, 122		8
320	Microfluidic and Microscale Assays to Examine Regenerative Strategies in the Neuro Retina. **2020**, 11,		3
319	Viscoelastic and Poroelastic Relaxations of Soft Solid Surfaces. **2020**, 125, 238002		9
318	Electrokinetic transport and distribution of antibacterial nanoparticles for endodontic disinfection. **2020**, 53, 1120-1130		4
317	Following hybridization on sensor/array platforms by using SPR, elipsometer and MALDI-MS. **2020**, 39, 1057-1072		1
316	Self-detached membranes with well-defined pore size, shape and distribution fabricated by underexposure photolithography. **2020**, 38, 042601		
315	Experimental observation of boundary-driven oscillations in a reaction-diffusion-advection system. **2020**, 16, 4243-4255		0
314	Microfluidic perfusion modulates growth and motor neuron differentiation of stem cell aggregates. **2020**, 145, 4815-4826		2
313	Bioactive micropatterning of biomaterials for induction of endothelial progenitor cell differentiation: Acceleration of in situ endothelialization. **2020**, 108, 1479-1492		2
312	The SALSAC approach: comparing the reactivity of solvent-dispersed nanoparticles with nanoparticulate surfaces. **2020**, 2, 679-690		4

311	Growth and One-Dimensional Heteroepitaxy of Binary Colloidal Crystals. **2020**, 20, 3247-3256		2
310	Micropatterned Biphasic Nanocomposite Platform for Maintaining Chondrocyte Morphology. **2020**, 12, 14814-14824		8
309	Wafer-level fabrication of 3D nanoparticles assembled nanopillars and click chemistry modification for sensitive SERS detection of trace carbonyl compounds. **2020**, 31, 265301		3
308	Polycarbonate Heat Molding for Soft Lithography. **2020**, 16, e2000241		5
307	Visible-light photopolymerization of epoxy-terminated poly(dimethylsiloxane) blends: Influence of the cycloaliphatic monomer content on the curing behavior and network properties. **2020**, 134, 109841		8
306	Inertial Microfluidic Purification of Floating Cancer Cells for Drug Screening and Three-Dimensional Tumor Models. **2020**, 92, 11558-11564		12
305	Virtual optofluidic time-stretch quantitative phase imaging. **2020**, 5, 046103		6
304	Polycaprolactone solution-based ink for designing microfluidic channels on paper via 3D printing platform for biosensing application. **2020**, 31, 1139-1149		
303	Fabrication of unconventional inertial microfluidic channels using wax 3D printing. **2020**, 16, 2448-2459		27
302	Fabrication, Characterization and Application of Biomolecule Micropatterns on Cyclic Olefin Polymer (COP) Surfaces with Adjustable Contrast. *Biosensors*, **2019**, 10,	5.9	2
301	Neuromuscular Activity Induces Paracrine Signaling and Triggers Axonal Regrowth after Injury in Microfluidic Lab-On-Chip Devices. **2020**, 9,		6
300	Tumor-on-a-chip for integrating a 3D tumor microenvironment: chemical and mechanical factors. *Lab on A Chip*, **2020**, 20, 873-888	7.2	32
299	Generating Controlled, Dynamic Chemical Landscapes to Study Microbial Behavior. **2020**,		1
298	Surfactant concentration modulates the motion and placement of microparticles in an inhomogeneous electric field.. **2020**, 10, 8895-8904		3
297	A material odyssey for 3D nano/microstructures: two photon polymerization based nanolithography in bioapplications. **2020**, 19, 100635		30
296	The surface stress of biomedical silicones is a stimulant of cellular response. **2020**, 6, eaay0076		12
295	Deterministic Realization of Quasicrystal Surface Relief Gratings on Thin Azopolymer Films. **2020**, 7, 1902118		15
294	Hitting the wall: Human sperm velocity recovery under ultra-confined conditions. **2020**, 14, 024108		3

293	Engineered Microsystems for Spheroid and Organoid Studies. **2021**, 10, e2001284		18
292	Synthetic hydrogels: Synthesis, novel trends, and applications. **2021**, 138, 50376		41
291	Composable microfluidic spinning platforms for facile production of biomimetic perfusable hydrogel microtubes. **2021**, 16, 937-964		13
290	Patterning of protein-based materials. **2021**, 112, e23412		2
289	Integration of FISH and Microfluidics. **2021**, 2246, 249-261		
288	Innovative Strategies in Tendon Tissue Engineering. **2021**, 13,		11
287	Study of the interaction of folic acid-modified gold nanorods and fibrinogen through microfluidics: implications for protein adsorption, incorporation and viability of cancer cells. **2021**, 13, 17807-17821		1
286	Highly efficient enrichment and identification of pathogens using a herringbone microfluidic chip and by MALDI-TOF mass spectrometry. **2021**, 146, 4146-4153		4
285	Advanced applications of green materials in bioelectronics applications. **2021**, 631-661		
284	Hydrogels: Biomaterials for Sustained and Localized Drug Delivery. **2021**, 211-252		
283	Single-Cell Analysis of Mycobacteria Using Microfluidics and Time-Lapse Microscopy. **2021**, 2314, 205-229		0
282	Blood Supply and Microcirculation of the Peripheral Nerve. *Reference Series in Biomedical Engineering*, **2021**, 1-46		
281	Microfluidic devices based on textile threads for analytical applications: state of the art and prospects. *Analytical Methods*, **2021**, 13, 4830-4857	3.2	2
280	Microfluidic Systems and Organ (Human) on a Chip. **2021**, 175-200		1
279	Recent Advances in Patterning Natural Polymers: From Nanofabrication Techniques to Applications.. **2021**, 5, e2001060		6
278	Molecular Imprinting Strategies for Tissue Engineering Applications: A Review. **2021**, 13,		6
277	Deep learning-based moiré fringe alignment with circular gratings for lithography. **2021**, 46, 1113-1116		1
276	Silk Fibroin as a Functional Biomaterial for Tissue Engineering. **2021**, 22,		48

275	Characterization of immune cell migration using microfabrication. **2021**, 13, 185-202		5
274	Interactions of different lipoproteins with supported phospholipid raft membrane (SPRM) patterns to understand similar in-vivo processes. **2021**, 1863, 183535		1
273	A review of experimental models of focal cerebral ischemia focusing on the middle cerebral artery occlusion model. **2021**, 10, 242		1
272	High-Throughput Methods in the Discovery and Study of Biomaterials and Materiobiology. **2021**, 121, 4561-4677		45
271	Microfluidic delivery of cutting enzymes for fragmentation of surface-adsorbed DNA molecules.		
270	Characterization of Nanoparticle Adsorption on Polydimethylsiloxane-Based Microchannels. **2021**, 21,		
269	Innovative In Vitro Models for the Study of Lung Diseases.		0
268	Gradient-Based Microfluidic Platform for One Single Rapid Antimicrobial Susceptibility Testing. **2021**, 6, 1560-1571		1
267	Exploiting Substrate Cues for Co-Culturing Cells in a Micropattern. **2021**, 37, 4933-4942		0
266	Lithographic Processes for the Scalable Fabrication of Micro- and Nanostructures for Biochips and Biosensors. **2021**, 6, 2002-2024		11
265	Circulating mitochondrial -formyl peptides contribute to secondary nosocomial infection in patients with septic shock. **2021**, 118,		3
264	Review of Design Considerations for Brain-on-a-Chip Models. **2021**, 12,		7
263	Pressure measurement methods in microchannels: advances and applications. *Microfluidics and Nanofluidics*, **2021**, 25, 1	2.8	2
262	In-Situ Bonding of Multi-Layer Microfluidic Devices Assisted by an Automated Alignment System. **2021**, 6, 2611-2617		
261	Measuring cellular contraction: Current progress and a future in bioelectronics. **2021**, 9, 040903		1
260	Biomimetic microsystems for cardiovascular studies. **2021**, 320, C850-C872		1
259	Microlenses arrays: Fabrication, materials, and applications. **2021**, 84, 2784-2806		3
258	Intelligent Soft Surgical Robots for Next-Generation Minimally Invasive Surgery. **2021**, 3, 2100011		13

257	Tracking Mitochondrial Density and Positioning along a Growing Neuronal Process in Individual Neuron Using a Long-Term Growth and Imaging Microfluidic Device. **2021**, 8,		1
256	Nanowire Assisted Mechanotyping of Cellular Metastatic Potential. **2021**, 31, 2101638		0
255	OsciDrop: A Versatile On-demand Droplet Generator.		
254	Ligand Nanocluster Array Enables Artificial-Intelligence-Based Detection of Hidden Features in T-Cell Architecture. **2021**, 21, 5606-5613		1
253	AFM-Based nanofabrication and quality inspection of three-dimensional nanotemplates for soft lithography. **2021**, 66, 565-573		2
252	Microfluidics-assisted conjugation of chitosan-coated polymeric nanoparticles with antibodies: Significance in drug release, uptake, and cytotoxicity in breast cancer cells. **2021**, 591, 440-450		15
251	Lab-on-a-Chip Platforms as Tools for Drug Screening in Neuropathologies Associated with Blood-Brain Barrier Alterations. **2021**, 11,		4
250	A review of experimental models of focal cerebral ischemia focusing on the middle cerebral artery occlusion model. **2021**, 10, 242		1
249	Ultrafast laser manufacturing of nanofluidic systems. **2021**, 10, 2389-2406		8
248	Computer-aided Design Techniques for Flow-based Microfluidic Lab-on-a-chip Systems. **2021**, 54, 1-29		8
247	Bioinspired 3D Culture in Nanoliter Hyaluronic Acid-Rich Core-Shell Hydrogel Microcapsules Isolates Highly Pluripotent Human iPSCs. **2021**, 17, e2102219		4
246	Sequential and Switchable Patterning for Studying Cellular Processes under Spatiotemporal Control. **2021**, 13, 35545-35560		0
245	Programmable shape transformation of 3D printed magnetic hydrogel composite for hyperthermia cancer therapy. **2021**, 46, 101305		13
244	Evaluation of Streptococcus mutans Adhesion to Stainless Steel Surfaces Modified Using Different Topographies Following a Biomimetic Approach. **2021**, 11, 829		0
243	Organ-on-a-chip technology for nanoparticle research. **2021**, 8, 20		12
242	Combining Hydrophilic and Hydrophobic Materials in 3D Printing for Fabricating Microfluidic Devices with Spatial Wettability. *Advanced Materials Technologies*, **2021**, 6, 2100094	6.8	6
241	Organ-on-chip applications in drug discovery: an end user perspective. **2021**, 49, 1881-1890		8
240	Effect of osmotic pretreatment and drying temperature on drying kinetics, antioxidant activity, and overall quality of taikor (Roxb.) slices. **2021**, 28, 7269-7280		7

239	Enhenced cell adhesion on collagen I treated parylene-C microplates. **2021**, 32, 2195-2209		2
238	Moiré-based sub-nano misalignment sensing via deep learning for lithography. **2021**, 143, 106620		1
237	Development and customization of a concentration gradient microgenerator by extrusion 3D printing for drug testing in laboratory studies. **2021**, 23, e00160		
236	SIROF stabilized PEDOT/PSS allows biocompatible and reversible direct current stimulation capable of driving electrotaxis in cells. **2021**, 275, 120949		1
235	Investigation of viscoelastic focusing of particles and cells in a zigzag microchannel. **2021**, 42, 2230-2237		4
234	Microfluidic Platforms to Unravel Mysteries of Alzheimer's Disease: How Far Have We Come?. **2021**, 11,		1
233	Localized Surface Plasmon Resonance Sensors for Biomarker Detection with On-Chip Microfluidic Devices in Point-of-Care Diagnostics. **2022**, 199-223		
232	. **2021**, 40, 2104-2116		
231	Fluid structure-interaction in a deformable microchannel conveying a viscoelastic fluid. **2021**, 296, 104634		1
230	Review on molecularly imprinted polymers with a focus on their application to the analysis of protein biomarkers. **2021**, 144, 116431		9
229	Microfluidic preparation of double emulsions using a high aspect ratio double co-flow device. **2021**, 628, 127297		2
228	Elastocapillary effect in self-repair of proboscises of butterflies and moths. **2021**, 601, 734-745		
227	Cell guidance on peptide micropatterned silk fibroin scaffolds. **2021**, 603, 380-390		3
226	3D printed reactor-in-a-centrifuge (RIAC): Making flow-synthesis of nanoparticles pump-free and cost-effective. *Chemical Engineering Journal*, **2021**, 425, 130656	14.7	3
225	Tumor-on-a-chip devices for cancer immunotherapy. **2022**, 155-195		1
224	Miniaturized devices for point-of-care testing/miniaturization and integration with microfluidic systems. **2022**, 375-383		1
223	Nanowire array fabrication for high throughput screening in the biosciences. **2022**, 279-308		
222	Enhanced biocompatibility and multidirectional wet adhesion of insect-like synergistic wrinkled pillars with microcavities. *Chemical Engineering Journal*, **2022**, 429, 132467	14.7	1

221	Lithography and electrodes. **2021**, 277-307	2
220	Mimicking Human Kidney: Research Towards Better Solutions for Kidney Failure. **2021**, 293-312	0
219	Microfluidic devices for cell manipulation. **2021**, 329-389	0
218	Printable Organic Electronic Materials for Precisely Positioned Cell Attachment. **2021**, 37, 1874-1881	1
217	Evolution and applications of polymer brush hypersurface photolithography.	1
216	Evaluating cell migration in vitro by the method based on cell patterning within microfluidic channels. **2012**, n/a-n/a	1
215	Heterogeneous Catalyst Design by Multiple Functional Group Positioning in Organic–Inorganic Materials: On the Route to Analogs of Multifunctional Enzymes. **2010**, 495-516	2
214	Microcontact Printing Techniques. **2003**, 181-212	1
213	Soft Lithography and Imprint-Based Techniques for Microfluidics and Biological Analysis. **2003**, 305-330	4
212	Encyclopedia of Microfluidics and Nanofluidics. **2015**, 1723-1726	1
211	Microfluidic devices for imaging trafficking events in vivo using genetic model organisms. **2014**, 1174, 375-96	8
210	Microfluidic model of angiogenic sprouting. **2015**, 1214, 243-54	3
209	Single-cell analysis of mycobacteria using microfluidics and time-lapse microscopy. **2015**, 1285, 241-56	14
208	Lithographically defined two- and three-dimensional tissue microarrays. **2011**, 671, 107-16	11
207	Cell microarrays based on hydrogel microstructures for the application to cell-based biosensor. **2011**, 671, 133-45	1
206	Rapid prototyping of microstructures by soft lithography for biotechnology. **2010**, 583, 81-107	45
205	Spatiotemporal stimulation of single cells using flow photolysis. **2009**, 571, 321-32	5
204	Long-term imaging in microfluidic devices. **2010**, 591, 229-42	12

203	Rapid prototyping of PDMS devices using SU-8 lithography. **2013**, 949, 153-68		11
202	Multilayer microfluidic poly(ethylene glycol) diacrylate hydrogels. **2013**, 949, 387-401		1
201	On-Chip Drug Screening Technologies for Nanopharmaceutical and Nanomedicine Applications. **2021**, 311-346		2
200	Actuators in Adaptronics. **2007**, 95-300		2
199	Microscale Biomaterials for Tissue Engineering. **2011**, 119-138		1
198	3D On-Demand Bioprinting for the Creation of Engineered Tissues. **2010**, 3-19		7
197	Encyclopedia of Nanotechnology. **2015**, 1-12		0
196	Deformability- and size-based microcapsule sorting. **2017**, 48, 68-74		5
195	Brain-on-a-Chip Device for Modeling Multiregional Networks. **2021**, 7, 350-359		6
194	Chapter 3:Microfluidic Lab-on-a-Chip Sensing in Food Safety and Quality Analysis. **2017**, 61-94		2
193	Droplet-based light-sheet fluorescence microscopy for high-throughput sample preparation, 3-D imaging and quantitative analysis on a chip. *Lab on A Chip*, **2017**, 17, 2193-2197	7.2	24
192	On chip cryo-anesthesia of Drosophila larvae for high resolution in vivo imaging applications. *Lab on A Chip*, **2017**, 17, 2303-2322	7.2	6
191	Toward the Emergence of Nanoneurosurgery: Part III Progress in Nanoscience, Nanotechnology, and the Comprehension of Events in the Mesoscale Realm. **2005**, 57, 606-634		12
190	PiFlow: A Biocompatible Low-Cost Programmable Dynamic Flow Pumping System Utilizing a Raspberry Pi Zero and Commercial Piezoelectric Pumps.		3
189	The emergence of dynamical instantaneous memory in the spontaneous activity of spatially confined neuronal assemblies in vitro.		0
188	High-throughput micro-patterning platform reveals Nodal-dependent dissection of peri-gastrulation-associated versus pre-neurulation associated fate patterning.		1
187	A neuroprosthetic system to restore neuronal communication in modular networks.		2
186	Rapid prototyping of 2D glass microfluidic devices based on femtosecond laser assisted selective etching process. **2018**,		1

185	Solvent-resistant microfluidic devices made from PFHDA resins by micro-stereolithography. **2020**,	2
184	Micro- and Nanoelectromechanical Systems in Medicine and Surgery. **2004**,	1
183	Biocompatibility of Elastomers. **2013**, 415-494	1
182	Self-Assembled Monolayers. **2013**, 3-29	1
181	Intelligent frequency-shifted optofluidic time-stretch quantitative phase imaging. **2020**, 28, 519-532	10
180	Misalignment sensing with a moir beat signal for nanolithography. **2020**, 45, 1762-1765	2
179	High-level expression, single-step immunoaffinity purification and characterization of human tetraspanin membrane protein CD81. **2008**, 3, e2314	24
178	Determinants of leukocyte margination in rectangular microchannels. **2009**, 4, e7104	66
177	Modulation of hepatocarcinoma cell morphology and activity by parylene-C coating on PDMS. **2010**, 5, e9667	14
176	A fast and accessible methodology for micro-patterning cells on standard culture substrates using Parafilm inserts. **2011**, 6, e20909	45
175	A stochastic description of Dictyostelium chemotaxis. **2012**, 7, e37213	44
174	A bioartificial renal tubule device embedding human renal stem/progenitor cells. **2014**, 9, e87496	57
173	Influence of fast advective flows on pattern formation of Dictyostelium discoideum. **2018**, 13, e0194859	5
172	Microfluidics and organ-on-a-chip technologies: A systematic review of the methods used to mimic bone marrow. **2020**, 15, e0243840	7
171	Biology on a chip: microfabrication for studying the behavior of cultured cells. **2003**, 31, 423-88	137
170	Fabrication of Cell-Adhesion Surface and Arteriole Model by Photolithography. **2007**, 19, 535-543	5
169	Disposable microfluidic devices: fabrication, function, and application. **2005**, 38, 429-46	327
168	Biomedical Technologies for in vitro Screening and Controlled Delivery of Neuroactive Compounds. **2008**, 8, 203-219	6

167	Bio-functionalized surface designs necessary for applications in regenerative medicine. **2006**, 26, 437-445	2
166	Bioprinting in Vascularization Strategies. **2019**, 23, 9-20	6
165	Micromechanical Punching: A Versatile Method for Non-Spherical Microparticle Fabrication. **2020**, 13,	2
164	Microfluidic technology for cell hydrodynamic manipulation. **2017**, 4, 178-191	4
163	Microfluidic System Based High Throughput Drug Screening System for Curcumin/TRAIL Combinational Chemotherapy in Human Prostate Cancer PC3 Cells. **2014**, 22, 355-62	45
162	Ultra-Sensitive Analysis of Microcystin LR Using Microchip Based Detection System. **2005**, 26, 939-942	3
161	PDMS Nanoslits without Roof Collapse. **2009**, 30, 1793-1797	10
160	Microchips and their Significance in Isolation of Circulating Tumor Cells and Monitoring of Cancers. **2016**, 17, 879-94	12
159	The size of the EB cap determines instantaneous microtubule stability. **2016**, 5,	78
158	Intelligent classification of platelet aggregates by agonist type. **2020**, 9,	23
157	In situ patterning of organic molecules in aqueous solutions using an inverted electron-beam lithography system. **2016**, 55, 06GL07	3
156	TANDEM: biomicrofluidic systems with transverse and normal diffusional environments for multidirectional signaling. *Lab on A Chip*, **2021**, 21, 4081-4094	7.2
155	Homeostatic growth of dynamic covalent polymer network toward ultrafast direct soft lithography. **2021**, 7, eabi7360	5
154	Extracellular Matrix-Based Biomaterials for Cardiovascular Tissue Engineering. **2021**, 8,	5
153	Fungal Mineral Weathering Mechanisms Revealed Through Direct Molecular Visualization.	
152	Gravity-Driven Micropump with a Steady Flow Rate. **2002**, 151-153	2
151	Fabrication of Nanoscale Hydrophobic Regions on Anodic Alumina for Selective Adhesion of Biologic Molecules. **2003**, 773, 631	
150	Nanofluidics Structures and Devices. **2004**, 319-355	

149 Self-Assembled Monolayers in Mammalian Cell Cultures. **2005**, 199-215

148 Integrated function evaluation of efficient micromixer and application to glucose-catalysts reaction. **2005**, 14, 291-296

147 Introduction to Micro-Systems and to the Techniques for Their Fabrication. **2006**, 1-36

146 At the Interface: Advanced Microfluidic Assays for Study of Cell Function. **2006**, 55-78

145 Contribution of Non-parenchymal Cells to the Performance of Micropatterned Hepatocytes. **2006**, 060913044658045

144 A Study on the Impedance Scaled Tele-Nanomanipulation in a Nanoscale Virtual Environment. **2006**, 30, 1401-1407

143 Nanoengineering of Biomaterial Surfaces.

142 Microstructures in 3D Biological Gels Affect Cell Proliferation. 110306233438005

141 Self-Assembly of Nanostructures as Biomaterials. **2008**, 237-274

140 Electroactive Polymers as Smart Materials with Intrinsic Actuation Properties. **2008**, 483-503

139 Micro- and Nanoscale Technologies in High-Throughput Biomedical Experimentation. **2009**, 314-346

138 Role of Spatial Distribution of Matricellular Cues in Controlling Cell Functions. **2010**, 207-232

137 Microtechnology for Stem Cell Culture. **2011**, 465-482

136 Ultrafast laser inscription: science today, technology tomorrow. **2011**,

135 Connecting Microbial Population Genetics with Microbial Pathogenesis Engineering Microfluidic Cell Arrays for High-throughput Interrogation of Host-Pathogen Interaction. **2011**, 533-548

134 Micro pH Sensor Using Patterned Hydrogel with pH Indicators. **2011**, 20, 234-237 0

133 Micro/Nano Technologies and Their Biological and Medical Applications. **2012**, 819-851

132 Nanofabrication Techniques and Their Applications to Terahertz Science and Technology. **2012**, 147-162

131 Lithography and Fabrication of Frictional Tiers on Poly(Dimethylsiloxane) Using Atomic Force Microscopy. **2012**, 02, 233-237

130 Introduction. **2012**, 1-46

129 In vitro Neuronal Cell Guidance by Protein Micro- and Nanocontact Printing. **2013**, 899-922

128 Encyclopedia of Microfluidics and Nanofluidics. **2014**, 1-5 1

127 Soft Matter Composites Interfacing with Biomolecules, Cells, and Tissues. **2014**, 29-76

126 Chapter 2:Kidney on a Chip. **2014**, 19-39

125 Bioinformatics and Nanotechnologies: Nanomedicine. **2014**, 517-532

124 Optofluidics. **2014**, 261-271

123 Lungs-on-a-Chip. **2014**, 57-70

122 Bridging Two Cultures: Minimalistic Networks Prepared by Microfluidic Arraying, and Open Access Compartments for Electrophysiology. **2015**, 39-56

121 Encyclopedia of Nanotechnology. **2015**, 1-14

120 Emerging Engineering Strategies for Studying the Stem Cell Niche. **2015**, 57-106

119 Electroactive Polymers as Smart Materials. 3155-3168

118 Chapter 10:Supramolecular Surface Systems: Which and Whither?. **2016**, 433-485

117 Functionalized Surfaces: Biomolecular Surface Modification with Functional Polymers. 3526-3556

116 Fluidic Microsystems: From Labs-on-Chips to Microfluidic Cell Culture. **2016**, 351-372

115 Miniaturized Fluidic Devices and Their Biophotonic Applications. **2016**, 1-47 1

114 Softlithografie. **2016**, 81-87

113	Fabrication of Stable Water/Oil Separation Filter Using Effect of Surface Wettability. **2016**, 25, 213-217	0
112	Miniaturized Fluidic Devices and Their Biophotonic Applications. **2017**, 893-939	
111	Automatic Image Analysis for Rapid Drug Susceptibility Testing. **2017**, 6, 76-82	
110	Functionalized Surfaces: Biomolecular Surface Modification with Functional Polymers. **2017**, 585-615	
109	Multi-Photon Fabrication of Ultra-compact Optical Waveguides in Polydimethylsiloxane. **2018**,	
108	The Stress-Chip: A microfluidic platform for stress analysis in Caenorhabditis elegans.	
107	Photoinitiator-free laser fabrication of ultra-compact, low-loss waveguides in polydimethylsiloxane. **2018**,	
106	Microchip Electrophoresis and Bioanalytical Applications. **2019**, 15, 109-120	2
105	Extracellular matrix micropatterning technology for whole cell cryogenic electron microscopy studies.	1
104	Boundary-Driven Oscillations Rescue PdsA-cells.	
103	An open source microfluidic sorter for Caenorhabditis nematodes.	
102	CellWell: A micropatterned biphasic nanocomposite platform for culturing chondrocytes.	
101	A naturally segregating polymorphism balancing semelparous reproduction versus reproductive diapause revealed via microfluidic assessment of starvation stress in Caenorhabditis elegans.	
100	Microfluidic Devices: A New Paradigm in Toxicity Studies.	
99	Tracking mitochondrial density and positioning along a growing neuronal process in individual C. elegans neuron using a long-term growth and imaging microfluidic device.	1
98	Classification of platelet aggregates by agonist type.	
97	Polymer-based microfluidic devices: A comprehensive review on preparation and applications.	2
96	Optofluidic Thin-film Lithography for Photocrosslinking Hydrogel-based Microarchitectures and the Assembling of Modular Cell-embedded Microarchitectures. **2021**, 131048	1

95	Connecting Microbial Population Genetics with Microbial Pathogenesis. 745-760	
94	Microfluidic Tectonics. **2006**, 223-242	
93	lifespan measurement. **2020**, 4, 1-10	2
92	Simulation and modeling of physiological processes of vital organs in organ-on-a-chip biosystem. **2022**, 34, 101710	3
91	Roof deformation and collapse of stamps with isolated grooves: a contact mechanics approach. 1-22	
90	ViaChip for Size-based Enrichment of Viable Cells.. **2022**, 353, 131159-131159	1
89	Nanomaterials: Synthesis and Applications in Theranostics.. **2021**, 11,	4
88	Hipster microcarriers: exploring geometrical and topographical cues of non-spherical microcarriers in biomedical applications.. **2021**,	0
87	Maximizing interfacial bonding strength between PDMS and PMMA substrates for manufacturing hybrid microfluidic devices withstanding extremely high flow rate and high operation pressure. **2022**, 334, 113330	1
86	From organ-on-chip to body-on-chip: The next generation of microfluidics platforms for in vitro drug efficacy and toxicity testing.. **2022**, 187, 41-91	1
85	Microfluidic Platforms Designed for Morphological and Photosynthetic Investigations of on a Single-Cell Level.. **2022**, 11,	0
84	Advances in Single-Cell Printing.. **2022**, 13,	3
83	Industrial-Scale Vacuum Casting with Silicone Molds: A Review.	1
82	High-throughput formation and image-based analysis of basal-in mammary organoids in 384-well plates.. **2022**, 12, 317	1
81	Metal oxidesbased microfluidic biosensing. **2022**, 233-263	
80	Micro-textured silicone-based implant fabrication using electrospun fibers as a sacrificial template to suppress fibrous capsule formation.. **2022**, 112687	1
79	A Review of Microfluidic Devices for Rheological Characterisation.. **2022**, 13,	4
78	Overcoming the barriers of two-dimensional cell culture systems with three-dimensional cell culture systems: techniques, drug discovery, and biomedical applications. **2022**, 179-229	

77	Screening for Best Neuronal-Glial Differentiation Protocols of Neuralizing Agents Using a Multi-Sized Microfluidic Embryoid Body Array.. **2022**, 14,		
76	Solution processing of piezoelectric unconventional structures. **2022**, 375-439		
75	Surface patterning techniques for proteins on nano- and micro-systems: a modulated aspect in hierarchical structures.. **2022**,		1
74	OsciDrop: A Versatile Deterministic Droplet Generator.. **2022**,		2
73	Gravity-Vector Induces Mechanical Remodeling of rMSCs Combined Substrate Stiffness and Orientation.. **2021**, 9, 724101		1
72	Paper-based microfluidic devices: Fabrication, detection, and significant applications in various fields. **2022**, 41, 112-136		1
71	Biosensors to Monitor Cell Activity in 3D Hydrogel-Based Tissue Models.. **2022**, 22,		4
70	Thermal-Corrosion-Free Electrode-Integrated Cell Chip for Promotion of Electrically Stimulated Neurite Outgrowth. **2022**, 16, 99-110		1
69	Neurons-on-a-Chip: NeuroTools.. **2022**, 45, 76-83		1
68	Microfluidic Tissue Engineering and Bio-actuation.. **2022**, e2108427		4
67	Reciprocity of Cell Mechanics with Extracellular Stimuli: Emerging Opportunities for Translational Medicine.. **2022**, e2107305		2
66	Comparison of Hydrogen Peroxide Secretion From Living Cells Cultured in Different Formats Using Hydrogel-Based LSPR Substrates.. **2022**, 10, 869184		0
65	AC electroosmosis micromixing on a lab-on-a-foil electric microfluidic device. **2022**, 359, 131611		1
64	A Review on Additive Manufacturing of Micromixing Devices.. **2021**, 13,		0
63	Hand-Powered Inertial Microfluidic Syringe-Tip Centrifuge.. *Biosensors*, **2021**, 12,	5.9	1
62	Revisiting Airflow and Aerosol Transport Phenomena in the Deep Lungs with Microfluidics.. **2021**,		3
61	Engineering Complex Anisotropic Scaffolds beyond Simply Uniaxial Alignment for Tissue Engineering. 2110676		6
60	Mixer-based Washing Methods for Programmable Microfluidic Devices. **2022**,		

59	Accelerated sunlight-driven conversion of industrial flue gas into biofuels by microfluidic high-throughput screening towards improving photosynthesis in microalgae under fluctuating light. *Chemical Engineering Journal*, **2022**, 136487	14.7	0
58	Microfluidic free-flow paper electrochromatography for continuous separation of glycans. *ChemElectroChem*,	4.3	
57	Sustained delivery of focal ischemia coupled to real-time neurochemical sensing in brain slices.. *Lab on A Chip*, **2022**,	7.2	2
56	Silk Fibroin-Based Biomaterials for Tissue Engineering Applications.. *Molecules*, **2022**, 27,	4.8	3
55	Bending stiffness characterization of Bacillus subtilis' flagellar filament.. *Biophysical Journal*, **2022**,	2.9	
54	Molecularly Imprinted Polymer-Based Sensors for SARS-CoV-2: Where Are We Now?. *Biomimetics*, **2022**, 7, 58	3.7	1
53	Engineering multiscale structural orders for high-fidelity embryoids and organoids.. *Cell Stem Cell*, **2022**, 29, 722-743	18	0
52	Recent trends of silicon elastomer-based nanocomposites and their sensing applications. *Journal of Polymer Research*, **2022**, 29,	2.7	0
51	Tuning particle inertial separation in sinusoidal channels by embedding periodic obstacle microstructures.. *Lab on A Chip*, **2022**,	7.2	2
50	3D Printing and Patterning Vasculature in Engineered Tissues. **2015**, 267-285		
49	Organ Printing. **2015**, 489-503		
48	Structural colour enhanced microfluidics.. *Nature Communications*, **2022**, 13, 2281	17.4	2
47	Modeling the blood-brain barrier for treatment of central nervous system (CNS) diseases.. *Journal of Tissue Engineering*, **2022**, 13, 20417314221095997	7.5	3
46	Blood Supply and Microcirculation of the Peripheral Nerve. *Reference Series in Biomedical Engineering*, **2022**, 35-79		1
45	Easy-to-Operate Co-Flow Step Emulsification Device for High-Throughput Three-Dimensional Cell Culture. *Biosensors*, **2022**, 12, 350	5.9	
44	Self-organized canals enable long range directed material transport in bacterial communities.		0
43	Atherothrombosis-on-Chip: A Site-Specific Microfluidic Model for Thrombus Formation and Drug Discovery. *Advanced Biology*, 2101316		1
42	Review of Dielectrophoretic Manipulation of Micro and Nanomaterials: Fundamentals, Recent Developments, and Challenges. *IEEE Transactions on Biomedical Engineering*, **2022**, 1-15	5	0

41	Cells and Organs on a Chip in Biomedical Sciences. **2022**, 219-245		
40	EMERGING 3D PRINTING TECHNOLOGIES AND METHODOLOGIES FOR MICROFLUIDIC DEVELOPMENT. *Analytical Methods*,	3.2	2
39	Designing, synthesizing, and modeling active fluids. *Physics of Fluids*, **2022**, 34, 071301	4.4	1
38	A microfluidic approach to investigate the effects of bacteria deposition in porous media containing randomly packed microbeads via real-time pressure measurement. *Microfluidics and Nanofluidics*, **2022**, 26,	2.8	
37	Lithographic Patterning of Nanoscale Arrays of the Oxidase Enzyme CotA: Effects on Activity and Stability. *Advanced Materials Technologies*, 2200490	6.8	1
36	DNA-POINT: DNA Patterning of Optical Imprint for Nanomaterials Topography. **2022**, 14, 38388-38397		
35	Optimization of microfluidic functionalization of a plasmonic-based device for selective capture of anti-folic acid in solution. **2022**, 12, 100226		
34	Chapter 5. Geometric Cues for Directing Cell Fate. **2022**, 85-109		0
33	Natural polymers for wound dressing applications. **2022**, 367-441		0
32	Chapter 9. Engineered Substrates with Dynamically Tunable Topography. **2022**, 184-212		0
31	Stability characterization of microfluidics lipid-stabilized double emulsions under physiologically-relevant conditions. 2, 103		0
30	Self-organized canals enable long range directed material transport in bacterial communities. 11,		1
29	Integrating Micro and Nano Technologies for Cell Engineering and Analysis: Toward the Next Generation of Cell Therapy Workflows.		0
28	Small tissue chips with big opportunities for space medicine. **2022**,		1
27	Mechanoresponse of epithelial monolayers to in-plane and out-of-plane curvatures imposed by 3D microwells.		0
26	A short review of spiral microfluidic devices with distinct cross-sectional geometries. **2022**, 26,		0
25	A simple and accessible approach for processing photopolymer master molds for the fabrication of microfluidic polydimethylsiloxane devices..		0
24	Fabrication of a Patterned Scaffold Using Soft Lithography Technique to be Used in Cell Growth Applications.		0

23	A Nanofiber-embedded Microfluidic Platform for Studying Neurobiology.	0
22	VAT photopolymerization 3D printing optimization of high aspect ratio structures for additive manufacturing of chips towards biomedical applications. **2022**, 60, 103200	0
21	Single-cell sorting using integrated pneumatic valve droplet microfluidic chip. **2023**, 253, 124044	2
20	A Mineral-Doped Micromodel Platform Demonstrates Fungal Bridging of Carbon Hot Spots and Hyphal Transport of Mineral-Derived Nutrients.	0
19	Chapter 7. Cell Patterning to Mimic Tumor Anatomy. **2022**, 163-196	0
18	Chapter 3. Mimicking Fibrous Topographical Features of the Tumor Microenvironment. **2022**, 30-59	0
17	Critical design parameters to develop biomimetic organ-on-a-chip models for the evaluation of the safety and efficacy of nanoparticles. 1-18	0
16	Microfluidics and Lab-on-a-Chip for Biomedical Applications. **2023**, 263-283	0
15	A □print□pause□print□protocol for 3D printing microfluidics using multimaterial stereolithography.	2
14	Methods to Measure Water Permeability. **2023**, 343-361	0
13	Microfluidic Label-Free Hydrodynamic Separation of Blood Cells: Recent Developments and Future Perspectives. 2201425	0
12	Flexible ceramics for microfluidics-mediated biomedical devices. **2023**, 363-390	0
11	Physical Sciences in Cancer: Recent Advances and Insights at the Interface. **2023**, 301-328	0
10	Biointerface Coatings With Structural and Biochemical Properties Modifications of Biomaterials. **2023**, 10,	0
9	Low-cost hybrid bonding between thermoplastics and PDMS with differential adhesive tape for microfluidic devices. **2023**, 34,	0
8	Bioengineering liver tissue by repopulation of decellularised scaffolds. 15, 151-179	0
7	Self-Regulatory Micro- and Macroscale Patterning of ATP-Mediated Nanobioconjugate. **2023**, 17, 5108-5120	0
6	Controlled degradation of polycaprolactone-based micropillar arrays.	0

5	Porous Structural Microfluidic Device for Biomedical Diagnosis: A Review. **2023**, 14, 547	0
4	Penetration Coefficients of Commercial Nanolimes and a Liquid Mineral Precursor for Pore-Imitating Test Systems: Predictability of Infiltration Behavior. **2023**, 16, 2506	0
3	Microfluidics for nanopharmaceutical and medical applications. **2023**, 343-408	0
2	Breaking the clean room barrier: exploring low-cost alternatives for microfluidic devices. 11,	0
1	Novel design for a microfluidic-based platform for yeast replicative lifespan (RLS) analysis. **2023**, 19, 100199	0