Koichi Kato

List of Publications by Year
in descending order

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92 papers	3,946 citations	136740 32 h-index	138251 58 g-index
94 all docs	94 docs citations	94 times ranked	4377 citing authors

#	Article	IF	Citations
1	Enhancement of intercellular interaction between iPSC-derived neural progenitor cells and activated endothelial cells using cell surface modification with functional oligopeptides. Biomaterials Science, 2022, 10, 925-938.	2.6	2
2	Mucoadhesion of polyamphoteric hydrogels synthesized from acrylic acid and N,N-dimethylaminopropyl acrylamide. International Journal of Adhesion and Adhesives, 2021, 104, 102746.	1.4	4
3	Evaluation of a peptide motif designed for protein tethering to polymer surfaces. Journal of Biomaterials Science, Polymer Edition, 2021, 32, 76-92.	1.9	2
4	Quantitative Cell Subset Analysis Using Antibody Microarrays. ACS Applied Bio Materials, 2021, 4, 7673-7681.	2.3	0
5	Optimization of culture conditions for the efficient differentiation of mouse-induced pluripotent stem cells into dental epithelial-like cells. In Vitro Cellular and Developmental Biology - Animal, 2020, 56, 816-824.	0.7	0
6	Oriented immobilization of basic fibroblast growth factor: Bioengineered surface design for the expansion of human mesenchymal stromal cells. Scientific Reports, 2020, 10, 8762.	1.6	7
7	Epidermal growth factorâ€immobilized surfaces for the selective expansion of neural progenitor cells derived from induced pluripotent stem cells. Biotechnology and Bioengineering, 2020, 117, 2741-2748.	1.7	5
8	Differentiation of mouse-induced pluripotent stem cells into dental epithelial-like cells in the absence of added serum. In Vitro Cellular and Developmental Biology - Animal, 2019, 55, 130-137.	0.7	13
9	Effect of laser groove treatment on shear bond strength of resin-based luting agent to polyetheretherketone (PEEK). Journal of Prosthodontic Research, 2019, 63, 52-57.	1.1	37
10	Wnt3a promotes differentiation of human bone marrow-derived mesenchymal stem cells into cementoblast-like cells. In Vitro Cellular and Developmental Biology - Animal, 2018, 54, 468-476.	0.7	12
11	Formation of chemical bonds on zirconia surfaces with acidic functional monomers. Journal of Oral Science, 2018, 60, 187-193.	0.7	15
12	Enhancement of calcification by osteoblasts cultured on hydroxyapatite surfaces with adsorbed inorganic polyphosphate. In Vitro Cellular and Developmental Biology - Animal, 2018, 54, 449-457.	0.7	11
13	Molecular level analyses of mechanical properties of PTFE sterilized by Co-60 Î³-ray irradiation for clinical use. Radiation Physics and Chemistry, 2017, 139, 126-131.	1.4	11
14	Synthesis of Functional Tertiary Lymphoid Organs. , 2016, , 151-169.		1
15	Engineering of Artificial Lymph Node. , 2016, , 181-200.		1
16	Seeding of mesenchymal stem cells into inner part of interconnected porous biodegradable scaffold by a new method with a filter paper. Dental Materials Journal, 2015, 34, 78-85.	0.8	11
17	Optimization of surfaceâ€immobilized extracellular matrices for the proliferation of neural progenitor cells derived from induced pluripotent stem cells. Biotechnology and Bioengineering, 2015, 112, 2388-2396.	1.7	11
18	Biodental engineering. Journal of Oral Biosciences, 2015, 57, 80-85.	0.8	1

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19	Antibody Arrays for Quality Control of Mesenchymal Stem Cells. ACS Applied Materials & Interfaces, 2015, 7, 16828-16836.	4.0	6
20	Selective and rapid expansion of human neural progenitor cells on substrates with terminally anchored growth factors. Biomaterials, 2013, 34, 6008-6014.	5.7	10
21	In Vivo Study on the Survival of Neural Stem Cells Transplanted into the Rat Brain with a Collagen Hydrogel That Incorporates Laminin-Derived Polypeptides. Bioconjugate Chemistry, 2013, 24, 1798-1804.	1.8	51
22	Monitoring neural stem cell differentiation using PEDOTâ€“PSS based MEA. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4329-4333.	1.1	26
23	Influence of alkyl chain length on calcium phosphate deposition onto titanium surfaces modified with alkylphosphonic acid monolayers. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2267-2272.	2.1	11
24	Cell orientation and regulation of cellâ€“cell communication in human mesenchymal stem cells on different patterns of electrospun fibers. Biomedical Materials (Bristol), 2013, 8, 055002.	1.7	52
25	New development of carbonate apatite-chitosan scaffold based on lyophilization technique for bone tissue engineering. Dental Materials Journal, 2013, 32, 317-325.	0.8	24
26	Improvement of Neural Stem Cell Survival in Collagen Hydrogels by Incorporating Laminin-Derived Cell Adhesive Polypeptides. Bioconjugate Chemistry, 2012, 23, 212-221.	1.8	38
27	Design of Biointerfaces for Regenerative Medicine. Advances in Polymer Science, 2011, , 167-200.	0.4	4
28	Design of culture substrates for large-scale expansion of neural stem cells. Biomaterials, 2011, 32, 992-1001.	5.7	24
29	Enhanced proliferation of neural stem cells in a collagen hydrogel incorporating engineered epidermal growth factor. Biomaterials, 2011, 32, 4737-4743.	5.7	58
30	Array-based functional screening of growth factors toward optimizing neural stem cell microenvironments. Biomaterials, 2011, 32, 5015-5022.	5.7	20
31	High-Throughput Analyses of Gene Functions on a Cell Chip by Electroporation. Methods in Molecular Biology, 2011, 706, 181-190.	0.4	1
32	Layer-by-layer assembly of small interfering RNA and poly(ethyleneimine) for substrate-mediated electroporation with high efficiency. Analytical and Bioanalytical Chemistry, 2010, 397, 571-578.	1.9	20
33	Prolonged durability of electroporation microarrays as a result of addition of saccharides to nucleic acids. Analytical and Bioanalytical Chemistry, 2009, 393, 607-614.	1.9	7
34	Hyaluronic acid hydrogel loaded with genetically-engineered brain-derived neurotrophic factor as a neural cell carrier. Biomaterials, 2009, 30, 4581-4589.	5.7	60
35	Surface-Anchoring of Spontaneously Dimerized Epidermal Growth Factor for Highly Selective Expansion of Neural Stem Cells. Bioconjugate Chemistry, 2009, 20, 102-110.	1.8	32
36	Enhanced Survival of Neural Cells Embedded in Hydrogels Composed of Collagen and Laminin-Derived Cell Adhesive Peptide. Bioconjugate Chemistry, 2009, 20, 976-983.	1.8	44

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37	Surface-Displayed Antibodies as a Tool for Simultaneously Controlling the Arrangement and Morphology of Multiple Cell Types with Microscale Precision. ACS Applied Materials & Interfaces, 2009, 1, 53-55.	4.0	4
38	Electroporation microarray for parallel transfer of small interfering RNA into mammalian cells. Analytical and Bioanalytical Chemistry, 2008, 392, 1309-1316.	1.9	14
39	Essential role of structural integrity and firm attachment of surface-anchored epidermal growth factor in adherent culture of neural stem cells. Biomaterials, 2008, 29, 4403-4408.	5.7	25
40	Use of microarrays in transfection of mammalian cells with dicer-digested small interfering RNAs. Analytical Biochemistry, 2008, 374, 417-422.	1.1	4
41	A Collagen-Binding Mimetic of Neural Cell Adhesion Molecule. Bioconjugate Chemistry, 2008, 19, 1119-1123.	1.8	7
42	Self-Assembling Chimeric Protein for the Construction of Biodegradable Hydrogels Capable of Interaction with Integrins Expressed on Neural Stem/Progenitor Cells. Biomacromolecules, 2008, 9, 1411-1416.	2.6	29
43	Multifunctional Chimeric Proteins for the Sequential Regulation of Neural Stem Cell Differentiation. Bioconjugate Chemistry, 2008, 19, 516-524.	1.8	10
44	High-throughput Cytometry Using Antibody Arrays. , 2008, , .		0
45	Array-based functional screening for genes that regulate vascular endothelial differentiation of Flk1-positive progenitors derived from embryonic stem cells. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 1085-1097.	1.1	19
46	Ultrastructural Study on the Specific Binding of Genetically Engineered Epidermal Growth Factor to Type I Collagen Fibrils. Bioconjugate Chemistry, 2007, 18, 2137-2143.	1.8	15
47	High-Throughput Immunophenotyping by Surface Plasmon Resonance Imaging. Analytical Chemistry, 2007, 79, 8616-8623.	3.2	24
48	Combinatorial protein display for the cell-based screening of biomaterials that direct neural stem cell differentiation. Biomaterials, 2007, 28, 1048-1060.	5.7	159
49	Oriented immobilization of epidermal growth factor onto culture substrates for the selective expansion of neural stem cells. Biomaterials, 2007, 28, 3517-3529.	5.7	94
50	Antibody arrays for quantitative immunophenotyping. Biomaterials, 2007, 28, 1289-1297.	5.7	35
51	Fabrication of Cell-Based Arrays Using Micropatterned Alkanethiol Monolayers for the Parallel Silencing of Specific Genes by Small Interfering RNA. Bioconjugate Chemistry, 2006, 17, 1404-1410.	1.8	15
52	Layer-by-layer assembly of cationic lipid and plasmid DNA onto gold surface for stent-assisted gene transfer. Biomaterials, 2006, 27, 3497-3504.	5.7	76
53	Antibody microarray for correlating cell phenotype with surface marker. Biomaterials, 2005, 26, 687-696.	5.7	40
54	Parallel analysis of multiple surface markers expressed on rat neural stem cells using antibody microarrays. Biomaterials, 2005, 26, 4882-4891.	5.7	59

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55	A thin carboxymethyl cellulose culture substrate for the cellulase-induced harvesting of an endothelial cell sheet. Journal of Biomaterials Science, Polymer Edition, 2005, 16, 1277-1291.	1.9	27
56	Layer-by-Layer Assembly of Poly(ethyleneimine) and Plasmid DNA onto Transparent Indiumâ^'Tin Oxide Electrodes for Temporally and Spatially Specific Gene Transfer. Langmuir, 2005, 21, 8360-8367.	1.6	80
57	Immobilization of Histidine-Tagged Recombinant Proteins onto Micropatterned Surfaces for Cell-Based Functional Assays. Langmuir, 2005, 21, 7071-7075.	1.6	61
58	Spatially and temporally controlled gene transfer by electroporation into adherent cells on plasmid DNA-loaded electrodes. Nucleic Acids Research, 2004, 32, e187-e187.	6.5	82
59	Drug permeation through temperature-sensitive membranes prepared from poly(vinylidene fluoride) with grafted poly(N-isopropylacrylamide) chains. Journal of Membrane Science, 2004, 243, 253-262.	4.1	87
60	Synthesis and characterization of stimuli-sensitive hydrogels having a different length of ethylene glycol chains carrying phosphate groups: loading and release of lysozyme. Journal of Biomaterials Science, Polymer Edition, 2004, 15, 1435-1446.	1.9	24
61	Micropatterned, self-assembled monolayers for fabrication of transfected cell microarrays. Biochimica Et Biophysica Acta - General Subjects, 2004, 1672, 138-147.	1.1	49
62	Adsorption of Enantiomeric Poly(lactide)s on Surface-Grafted Poly(l-lactide). Langmuir, 2004, 20, 6748-6753.	1.6	19
63	Novel Poly(N-isopropylacrylamide)-graft-poly(vinylidene fluoride) Copolymers for Temperature-Sensitive Microfiltration Membranes. Macromolecular Materials and Engineering, 2003, 288, 11-16.	1.7	22
64	Polymer surface with graft chains. Progress in Polymer Science, 2003, 28, 209-259.	11.8	589
65	Glistening formation in an AcrySof lens initiated by spinodal decompositionof the polymer network bytemperature change. Journal of Cataract and Refractive Surgery, 2001, 27, 1493-1498.	0.7	71
66	The interplay between surface micro-topography and -mechanics of type I collagen fibrils in air and aqueous media: An atomic force microscopy study. European Physical Journal E, 2001, 6, 7-14.	0.7	22
67	Synthesis of bioadhesive hydrogels from chitin derivatives. International Journal of Adhesion and Adhesives, 2001, 21, 227-232.	1.4	50
68	Slipperiness of Water Droplets on Polymer Surfaces : Effects of Surface Morphology and Surface Free Energy. Journal of the Japan Society of Colour Material, 2000, 73, 485-488.	0.0	1
69	Collagen immobilization onto the surface of artificial hair for improving the tissue adhesion. Journal of Adhesion Science and Technology, 2000, 14, 635-650.	1.4	15
70	Optical and atomic force microscopy of an explanted AcrySof intraocular lens with glistenings. Journal of Cataract and Refractive Surgery, 2000, 26, 571-575.	0.7	56
71	Immobilization of DNA onto a polymer support and its potentiality as immunoadsorbent. Biotechnology and Bioengineering, 2000, 51, 581-590.	1.7	54
72	Preparation of DNA-immobilized immunoadsorbent for treatment of systemic lupus erythematosus. Journal of Biomaterials Science, Polymer Edition, 1999, 10, 341-350.	1.9	17

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73	Surface oxidation of cellulose fibers by vacuum ultraviolet irradiation. Journal of Polymer Science Part A, 1999, 37, 357-361.	2.5	33
74	Surface Modification of Polymers by Grafting. , 1998, , 1-39.		238
75	Lysozyme loading and release from hydrogels carrying pendant phosphate groups. Journal of Biomaterials Science, Polymer Edition, 1998, 9, 43-53.	1.9	43
76	In situ hydroxyapatite crystallization for the formation of hydroxyapatite/polymer composites. Journal of Materials Science, 1997, 32, 5533-5543.	1.7	49
77	Studies on tumor-promoting activity of polyethylene: Inhibitory activity of metabolic cooperation on polyethylene surfaces is markedly decreased by surface modification with collagen but not with RGDS peptide. , 1997, 35, 391-397.		25
78	Ultrastructure of the interface between cultured osteoblasts and surface-modified polymer substrates. , 1997, 37, 29-36.		50
79	Histologic and mechanical evaluation for bone bonding of polymer surfaces grafted with a phosphate-containing polymer. , 1997, 37, 384-393.		48
80	Histologic and mechanical evaluation for bone bonding of polymer surfaces grafted with a phosphate-containing polymer. , 1997, 37, 384.		1
81	Effect of the Structure of Bone Morphogenetic Protein Carriers on Ectopic Bone Regeneration. Tissue Engineering, 1996, 2, 315-326.	4.9	13
82	Surface Modification and Functionalization of Polytetrafluoroethylene Films. Macromolecules, 1996, 29, 6872-6879.	2.2	214
83	XPS Characterization of Surface Functionalized Electroactive Polymers. Surface and Interface Analysis, 1996, 24, 597-604.	0.8	16
84	Deposition of a hydroxyapatite thin layer onto a polymer surface carrying grafted phosphate polymer chains. , 1996, 32, 687-691.		67
85	Plasma treatment of polyaniline films: Effect on the intrinsic oxidation states. Journal of Materials Research, 1996, 11, 1570-1573.	1.2	18
86	Selective adsorption of proteins to their ligands covalently immobilized onto microfibers. Biotechnology and Bioengineering, 1995, 47, 557-566.	1.7	22
87	Peroxide generation and decomposition on polymer surface. Journal of Polymer Science Part A, 1995, 33, 323-330.	2.5	36
88	Surface graft polymerization of glycidyl methacrylate onto polyethylene and the adhesion with epoxy resin. Journal of Polymer Science Part A, 1995, 33, 2629-2638.	2.5	52
89	Protein adsorption onto ionic surfaces. Colloids and Surfaces B: Biointerfaces, 1995, 4, 221-230.	2.5	57
90	In vitro hydroxyapatite deposition onto a film surface-grafted with organophosphate polymer. Journal of Biomedical Materials Research Part B, 1994, 28, 1365-1373.	3.0	101

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91	Introduction of functional groups onto the surface of polyethylene for protein immobilization. Biomaterials, 1993, 14, 817-822.	5.7	210
92	Trypsin immobilization on to polymer surface through grafted layer and its reaction with inhibitors. Biomaterials, 1993, 14, 763-769.	5.7	65