

Koichi Kato

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2675829/publications.pdf>

Version: 2024-02-01

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 | Polymer surface with graft chains. Progress in Polymer Science, 2003, 28, 209-259. | 11.8 | 589 |
| 2 | Surface Modification of Polymers by Grafting. , 1998, , 1-39. | | 238 |
| 3 | Surface Modification and Functionalization of Polytetrafluoroethylene Films. Macromolecules, 1996, 29, 6872-6879. | 2.2 | 214 |
| 4 | Introduction of functional groups onto the surface of polyethylene for protein immobilization. Biomaterials, 1993, 14, 817-822. | 5.7 | 210 |
| 5 | Combinatorial protein display for the cell-based screening of biomaterials that direct neural stem cell differentiation. Biomaterials, 2007, 28, 1048-1060. | 5.7 | 159 |
| 6 | 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 |
| 7 | 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 |
| 8 | 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 |
| 9 | 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 |
| 10 | Layer-by-Layer Assembly of Poly(ethyleneimine) and Plasmid DNA onto Transparent Indium ⁺ Tin Oxide Electrodes for Temporally and Spatially Specific Gene Transfer. Langmuir, 2005, 21, 8360-8367. | 1.6 | 80 |
| 11 | 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 |
| 12 | Glistening formation in an AcrySof lens initiated by spinodal decomposition of the polymer network by temperature change. Journal of Cataract and Refractive Surgery, 2001, 27, 1493-1498. | 0.7 | 71 |
| 13 | Deposition of a hydroxyapatite thin layer onto a polymer surface carrying grafted phosphate polymer chains. , 1996, 32, 687-691. | | 67 |
| 14 | Trypsin immobilization on to polymer surface through grafted layer and its reaction with inhibitors. Biomaterials, 1993, 14, 763-769. | 5.7 | 65 |
| 15 | Immobilization of Histidine-Tagged Recombinant Proteins onto Micropatterned Surfaces for Cell-Based Functional Assays. Langmuir, 2005, 21, 7071-7075. | 1.6 | 61 |
| 16 | Hyaluronic acid hydrogel loaded with genetically-engineered brain-derived neurotrophic factor as a neural cell carrier. Biomaterials, 2009, 30, 4581-4589. | 5.7 | 60 |
| 17 | Parallel analysis of multiple surface markers expressed on rat neural stem cells using antibody microarrays. Biomaterials, 2005, 26, 4882-4891. | 5.7 | 59 |
| 18 | Enhanced proliferation of neural stem cells in a collagen hydrogel incorporating engineered epidermal growth factor. Biomaterials, 2011, 32, 4737-4743. | 5.7 | 58 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Protein adsorption onto ionic surfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 1995, 4, 221-230. | 2.5 | 57 |
| 20 | Optical and atomic force microscopy of an explanted AcrySof intraocular lens with glistenings. <i>Journal of Cataract and Refractive Surgery</i> , 2000, 26, 571-575. | 0.7 | 56 |
| 21 | Immobilization of DNA onto a polymer support and its potentiality as immunoadsorbent. <i>Biotechnology and Bioengineering</i> , 2000, 51, 581-590. | 1.7 | 54 |
| 22 | Surface graft polymerization of glycidyl methacrylate onto polyethylene and the adhesion with epoxy resin. <i>Journal of Polymer Science Part A</i> , 1995, 33, 2629-2638. | 2.5 | 52 |
| 23 | Cell orientation and regulation of cell-cell communication in human mesenchymal stem cells on different patterns of electrospun fibers. <i>Biomedical Materials (Bristol)</i> , 2013, 8, 055002. | 1.7 | 52 |
| 24 | <i>In Vivo</i> Study on the Survival of Neural Stem Cells Transplanted into the Rat Brain with a Collagen Hydrogel That Incorporates Laminin-Derived Polypeptides. <i>Bioconjugate Chemistry</i> , 2013, 24, 1798-1804. | 1.8 | 51 |
| 25 | Ultrastructure of the interface between cultured osteoblasts and surface-modified polymer substrates. , 1997, 37, 29-36. | | 50 |
| 26 | Synthesis of bioadhesive hydrogels from chitin derivatives. <i>International Journal of Adhesion and Adhesives</i> , 2001, 21, 227-232. | 1.4 | 50 |
| 27 | In situ hydroxyapatite crystallization for the formation of hydroxyapatite/polymer composites. <i>Journal of Materials Science</i> , 1997, 32, 5533-5543. | 1.7 | 49 |
| 28 | Micropatterned, self-assembled monolayers for fabrication of transfected cell microarrays. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2004, 1672, 138-147. | 1.1 | 49 |
| 29 | Histologic and mechanical evaluation for bone bonding of polymer surfaces grafted with a phosphate-containing polymer. , 1997, 37, 384-393. | | 48 |
| 30 | Enhanced Survival of Neural Cells Embedded in Hydrogels Composed of Collagen and Laminin-Derived Cell Adhesive Peptide. <i>Bioconjugate Chemistry</i> , 2009, 20, 976-983. | 1.8 | 44 |
| 31 | Lysozyme loading and release from hydrogels carrying pendant phosphate groups. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1998, 9, 43-53. | 1.9 | 43 |
| 32 | Antibody microarray for correlating cell phenotype with surface marker. <i>Biomaterials</i> , 2005, 26, 687-696. | 5.7 | 40 |
| 33 | Improvement of Neural Stem Cell Survival in Collagen Hydrogels by Incorporating Laminin-Derived Cell Adhesive Polypeptides. <i>Bioconjugate Chemistry</i> , 2012, 23, 212-221. | 1.8 | 38 |
| 34 | Effect of laser groove treatment on shear bond strength of resin-based luting agent to polyetheretherketone (PEEK). <i>Journal of Prosthodontic Research</i> , 2019, 63, 52-57. | 1.1 | 37 |
| 35 | Peroxide generation and decomposition on polymer surface. <i>Journal of Polymer Science Part A</i> , 1995, 33, 323-330. | 2.5 | 36 |
| 36 | Antibody arrays for quantitative immunophenotyping. <i>Biomaterials</i> , 2007, 28, 1289-1297. | 5.7 | 35 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Surface oxidation of cellulose fibers by vacuum ultraviolet irradiation. <i>Journal of Polymer Science Part A</i> , 1999, 37, 357-361. | 2.5 | 33 |
| 38 | Surface-Anchoring of Spontaneously Dimerized Epidermal Growth Factor for Highly Selective Expansion of Neural Stem Cells. <i>Bioconjugate Chemistry</i> , 2009, 20, 102-110. | 1.8 | 32 |
| 39 | Self-Assembling Chimeric Protein for the Construction of Biodegradable Hydrogels Capable of Interaction with Integrins Expressed on Neural Stem/Progenitor Cells. <i>Biomacromolecules</i> , 2008, 9, 1411-1416. | 2.6 | 29 |
| 40 | A thin carboxymethyl cellulose culture substrate for the cellulase-induced harvesting of an endothelial cell sheet. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2005, 16, 1277-1291. | 1.9 | 27 |
| 41 | Monitoring neural stem cell differentiation using PEDOT/PSS based MEA. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 4329-4333. | 1.1 | 26 |
| 42 | 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 |
| 43 | Essential role of structural integrity and firm attachment of surface-anchored epidermal growth factor in adherent culture of neural stem cells. <i>Biomaterials</i> , 2008, 29, 4403-4408. | 5.7 | 25 |
| 44 | Synthesis and characterization of stimuli-sensitive hydrogels having a different length of ethylene glycol chains carrying phosphate groups: loading and release of lysozyme. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2004, 15, 1435-1446. | 1.9 | 24 |
| 45 | High-Throughput Immunophenotyping by Surface Plasmon Resonance Imaging. <i>Analytical Chemistry</i> , 2007, 79, 8616-8623. | 3.2 | 24 |
| 46 | Design of culture substrates for large-scale expansion of neural stem cells. <i>Biomaterials</i> , 2011, 32, 992-1001. | 5.7 | 24 |
| 47 | New development of carbonate apatite-chitosan scaffold based on lyophilization technique for bone tissue engineering. <i>Dental Materials Journal</i> , 2013, 32, 317-325. | 0.8 | 24 |
| 48 | Selective adsorption of proteins to their ligands covalently immobilized onto microfibers. <i>Biotechnology and Bioengineering</i> , 1995, 47, 557-566. | 1.7 | 22 |
| 49 | The interplay between surface micro-topography and -mechanics of type I collagen fibrils in air and aqueous media: An atomic force microscopy study. <i>European Physical Journal E</i> , 2001, 6, 7-14. | 0.7 | 22 |
| 50 | Novel Poly(N-isopropylacrylamide)-graft-poly(vinylidene fluoride) Copolymers for Temperature-Sensitive Microfiltration Membranes. <i>Macromolecular Materials and Engineering</i> , 2003, 288, 11-16. | 1.7 | 22 |
| 51 | Layer-by-layer assembly of small interfering RNA and poly(ethyleneimine) for substrate-mediated electroporation with high efficiency. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 571-578. | 1.9 | 20 |
| 52 | Array-based functional screening of growth factors toward optimizing neural stem cell microenvironments. <i>Biomaterials</i> , 2011, 32, 5015-5022. | 5.7 | 20 |
| 53 | Adsorption of Enantiomeric Poly(lactide)s on Surface-Grafted Poly(l-lactide). <i>Langmuir</i> , 2004, 20, 6748-6753. | 1.6 | 19 |
| 54 | Array-based functional screening for genes that regulate vascular endothelial differentiation of Flk1-positive progenitors derived from embryonic stem cells. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2007, 1770, 1085-1097. | 1.1 | 19 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Plasma treatment of polyaniline films: Effect on the intrinsic oxidation states. <i>Journal of Materials Research</i> , 1996, 11, 1570-1573. | 1.2 | 18 |
| 56 | Preparation of DNA-immobilized immunoadsorbent for treatment of systemic lupus erythematosus. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1999, 10, 341-350. | 1.9 | 17 |
| 57 | XPS Characterization of Surface Functionalized Electroactive Polymers. <i>Surface and Interface Analysis</i> , 1996, 24, 597-604. | 0.8 | 16 |
| 58 | Collagen immobilization onto the surface of artificial hair for improving the tissue adhesion. <i>Journal of Adhesion Science and Technology</i> , 2000, 14, 635-650. | 1.4 | 15 |
| 59 | Fabrication of Cell-Based Arrays Using Micropatterned Alkanethiol Monolayers for the Parallel Silencing of Specific Genes by Small Interfering RNA. <i>Bioconjugate Chemistry</i> , 2006, 17, 1404-1410. | 1.8 | 15 |
| 60 | Ultrastructural Study on the Specific Binding of Genetically Engineered Epidermal Growth Factor to Type I Collagen Fibrils. <i>Bioconjugate Chemistry</i> , 2007, 18, 2137-2143. | 1.8 | 15 |
| 61 | Formation of chemical bonds on zirconia surfaces with acidic functional monomers. <i>Journal of Oral Science</i> , 2018, 60, 187-193. | 0.7 | 15 |
| 62 | Electroporation microarray for parallel transfer of small interfering RNA into mammalian cells. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 392, 1309-1316. | 1.9 | 14 |
| 63 | Effect of the Structure of Bone Morphogenetic Protein Carriers on Ectopic Bone Regeneration. <i>Tissue Engineering</i> , 1996, 2, 315-326. | 4.9 | 13 |
| 64 | Differentiation of mouse-induced pluripotent stem cells into dental epithelial-like cells in the absence of added serum. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2019, 55, 130-137. | 0.7 | 13 |
| 65 | Wnt3a promotes differentiation of human bone marrow-derived mesenchymal stem cells into cementoblast-like cells. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2018, 54, 468-476. | 0.7 | 12 |
| 66 | Influence of alkyl chain length on calcium phosphate deposition onto titanium surfaces modified with alkylphosphonic acid monolayers. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 2267-2272. | 2.1 | 11 |
| 67 | Seeding of mesenchymal stem cells into inner part of interconnected porous biodegradable scaffold by a new method with a filter paper. <i>Dental Materials Journal</i> , 2015, 34, 78-85. | 0.8 | 11 |
| 68 | Optimization of surface-immobilized extracellular matrices for the proliferation of neural progenitor cells derived from induced pluripotent stem cells. <i>Biotechnology and Bioengineering</i> , 2015, 112, 2388-2396. | 1.7 | 11 |
| 69 | Molecular level analyses of mechanical properties of PTFE sterilized by Co-60 γ -ray irradiation for clinical use. <i>Radiation Physics and Chemistry</i> , 2017, 139, 126-131. | 1.4 | 11 |
| 70 | Enhancement of calcification by osteoblasts cultured on hydroxyapatite surfaces with adsorbed inorganic polyphosphate. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2018, 54, 449-457. | 0.7 | 11 |
| 71 | Multifunctional Chimeric Proteins for the Sequential Regulation of Neural Stem Cell Differentiation. <i>Bioconjugate Chemistry</i> , 2008, 19, 516-524. | 1.8 | 10 |
| 72 | Selective and rapid expansion of human neural progenitor cells on substrates with terminally anchored growth factors. <i>Biomaterials</i> , 2013, 34, 6008-6014. | 5.7 | 10 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | A Collagen-Binding Mimetic of Neural Cell Adhesion Molecule. <i>Bioconjugate Chemistry</i> , 2008, 19, 1119-1123. | 1.8 | 7 |
| 74 | Prolonged durability of electroporation microarrays as a result of addition of saccharides to nucleic acids. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 393, 607-614. | 1.9 | 7 |
| 75 | Oriented immobilization of basic fibroblast growth factor: Bioengineered surface design for the expansion of human mesenchymal stromal cells. <i>Scientific Reports</i> , 2020, 10, 8762. | 1.6 | 7 |
| 76 | Antibody Arrays for Quality Control of Mesenchymal Stem Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16828-16836. | 4.0 | 6 |
| 77 | Epidermal growth factor-immobilized surfaces for the selective expansion of neural progenitor cells derived from induced pluripotent stem cells. <i>Biotechnology and Bioengineering</i> , 2020, 117, 2741-2748. | 1.7 | 5 |
| 78 | Use of microarrays in transfection of mammalian cells with dicer-digested small interfering RNAs. <i>Analytical Biochemistry</i> , 2008, 374, 417-422. | 1.1 | 4 |
| 79 | Surface-Displayed Antibodies as a Tool for Simultaneously Controlling the Arrangement and Morphology of Multiple Cell Types with Microscale Precision. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 53-55. | 4.0 | 4 |
| 80 | Design of Biointerfaces for Regenerative Medicine. <i>Advances in Polymer Science</i> , 2011, , 167-200. | 0.4 | 4 |
| 81 | Mucoadhesion of polyamphoteric hydrogels synthesized from acrylic acid and N,N-dimethylaminopropyl acrylamide. <i>International Journal of Adhesion and Adhesives</i> , 2021, 104, 102746. | 1.4 | 4 |
| 82 | Evaluation of a peptide motif designed for protein tethering to polymer surfaces. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2021, 32, 76-92. | 1.9 | 2 |
| 83 | Enhancement of intercellular interaction between iPSC-derived neural progenitor cells and activated endothelial cells using cell surface modification with functional oligopeptides. <i>Biomaterials Science</i> , 2022, 10, 925-938. | 2.6 | 2 |
| 84 | Slipperiness of Water Droplets on Polymer Surfaces : Effects of Surface Morphology and Surface Free Energy. <i>Journal of the Japan Society of Colour Material</i> , 2000, 73, 485-488. | 0.0 | 1 |
| 85 | Biodental engineering. <i>Journal of Oral Biosciences</i> , 2015, 57, 80-85. | 0.8 | 1 |
| 86 | Synthesis of Functional Tertiary Lymphoid Organs. , 2016, , 151-169. | | 1 |
| 87 | Histologic and mechanical evaluation for bone bonding of polymer surfaces grafted with a phosphate-containing polymer. , 1997, 37, 384. | | 1 |
| 88 | High-Throughput Analyses of Gene Functions on a Cell Chip by Electroporation. <i>Methods in Molecular Biology</i> , 2011, 706, 181-190. | 0.4 | 1 |
| 89 | Engineering of Artificial Lymph Node. , 2016, , 181-200. | | 1 |
| 90 | Optimization of culture conditions for the efficient differentiation of mouse-induced pluripotent stem cells into dental epithelial-like cells. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2020, 56, 816-824. | 0.7 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 91 | Quantitative Cell Subset Analysis Using Antibody Microarrays. ACS Applied Bio Materials, 2021, 4, 7673-7681. | 2.3 | 0 |
| 92 | High-throughput Cytometry Using Antibody Arrays. , 2008, , . | | 0 |