Masaya Yamamoto

List of Publications by Year
in descending order

117 papers	5,439 citations	81839 39 h-index	85498 71 g-index
120 all docs	120 docs citations	120 times ranked	5951 citing authors

#	Article	IF	Citations
1	Controlled release of growth factors based on biodegradation of gelatin hydrogel. Journal of Biomaterials Science, Polymer Edition, 2001, 12, 77-88.	1.9	369
2	Controlled release by biodegradable hydrogels enhances the ectopic bone formation of bone morphogenetic protein. Biomaterials, 2003, 24, 4375-4383.	5.7	317
3	Osteogenic differentiation of mesenchymal stem cells in biodegradable sponges composed of gelatin and Î²-tricalcium phosphate. Biomaterials, 2005, 26, 3587-3596.	5.7	288
4	Biodegradable gelatin microparticles as delivery systems for the controlled release of bone morphogenetic protein-2. Acta Biomaterialia, 2008, 4, 1126-1138.	4.1	245
5	Enhanced osteoinduction by controlled release of bone morphogenetic protein-2 from biodegradable sponge composed of gelatin and Î²-tricalcium phosphate. Biomaterials, 2005, 26, 4856-4865.	5.7	243
6	Bone regeneration by transforming growth factor Î²1 released from a biodegradable hydrogel. Journal of Controlled Release, 2000, 64, 133-142.	4.8	186
7	Degree of biological apatite c-axis orientation rather than bone mineral density controls mechanical function in bone regenerated using recombinant bone morphogenetic protein-2. Journal of Bone and Mineral Research, 2013, 28, 1170-1179.	3.1	144
8	Continuous Delivery of Stromal Cell-Derived Factor-1 from Alginate Scaffolds Accelerates Wound Healing. Cell Transplantation, 2010, 19, 399-408.	1.2	143
9	Prevascularization with gelatin microspheres containing basic fibroblast growth factor enhances the benefits of cardiomyocyte transplantation. Journal of Thoracic and Cardiovascular Surgery, 2002, 124, 50-56.	0.4	142
10	Preparation of PEG-conjugated fullerene containing Gd3+ ions for photodynamic therapy. Journal of Controlled Release, 2007, 117, 104-110.	4.8	129
11	In Vitro and In Vivo Release of Vascular Endothelial Growth Factor from Gelatin Microparticles and Biodegradable Composite Scaffolds. Pharmaceutical Research, 2008, 25, 2370-2378.	1.7	129
12	A Novel Approach to Therapeutic Angiogenesis for Patients With Critical Limb Ischemia by Sustained Release of Basic Fibroblast Growth Factor Using Biodegradable Gelatin Hydrogel An Initial Report of the Phase I-IIa Study. Circulation Journal, 2007, 71, 1181-1186.	0.7	121
13	Enhanced Bone Regeneration at a Segmental Bone Defect by Controlled Release of Bone Morphogenetic Protein-2 from a Biodegradable Hydrogel. Tissue Engineering, 2006, 12, 1305-1311.	4.9	116
14	Type I collagen can function as a reservoir of basic fibroblast growth factor. Journal of Controlled Release, 2004, 99, 281-292.	4.8	109
15	Use of collagen sponge incorporating transforming growth factor-Î²1 to promote bone repair in skull defects in rabbits. Biomaterials, 2002, 23, 1003-1010.	5.7	106
16	Engineering Multiâ€Cellular Spheroids for Tissue Engineering and Regenerative Medicine. Advanced Healthcare Materials, 2020, 9, e2000608.	3.9	102
17	Enhanced ectopic bone formation using a combination of plasmid DNA impregnation into 3-D scaffold and bioreactor perfusion culture. Biomaterials, 2006, 27, 1387-1398.	5.7	100
18	Topical insulin-like growth factor 1 treatment using gelatin hydrogels for glucocorticoid-resistant sudden sensorineural hearing loss: a prospective clinical trial. BMC Medicine, 2010, 8, 76.	2.3	96

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19	Angiogenesis induced by controlled release of neuropeptide substance P. Biomaterials, 2010, 31, 8617-8625.	5.7	83
20	Toward surgical angiogenesis using slow-released basic fibroblast growth factor. European Journal of Cardio-thoracic Surgery, 2003, 24, 105-112.	0.6	79
21	Simultaneous application of basic fibroblast growth factor and hepatocyte growth factor to enhance the blood vessels formation. Journal of Vascular Surgery, 2005, 41, 82-90.	0.6	79
22	Efficient gene transfer by pullulanâ€“spermine occurs through both clathrin- and raft/caveolae-dependent mechanisms. Journal of Controlled Release, 2006, 116, 75-82.	4.8	77
23	Skull Bone Regeneration in Nonhuman Primates by Controlled Release of Bone Morphogenetic Protein-2 from a Biodegradable Hydrogel. Tissue Engineering, 2007, 13, 293-300.	4.9	73
24	Bone regeneration at rabbit skull defects treated with transforming growth factorâ€”Î²1 incorporated into hydrogels with different levels of biodegradability. Journal of Neurosurgery, 2000, 92, 315-325.	0.9	71
25	Ectopic bone formation induced by biodegradable hydrogels incorporating bone morphogenetic protein. Journal of Biomaterials Science, Polymer Edition, 1998, 9, 439-458.	1.9	67
26	Comparison of bone regeneration in a rabbit skull defect by recombinant human BMP-2 incorporated in biodegradable hydrogel and in solution. Journal of Biomaterials Science, Polymer Edition, 1998, 9, 1001-1014.	1.9	66
27	Mineralization, Biodegradation, and Drug Release Behavior of Gelatin/Apatite Composite Microspheres for Bone Regeneration. Biomacromolecules, 2010, 11, 2653-2659.	2.6	61
28	Administration of Control-Released Hepatocyte Growth Factor Enhances the Efficacy of Skeletal Myoblast Transplantation in Rat Infarcted Hearts by Greatly Increasing Both Quantity and Quality of the Graft. Circulation, 2005, 112, I129-34.	1.6	57
29	Expression profile of plasmid DNA by spermine derivatives of pullulan with different extents of spermine introduced. Journal of Controlled Release, 2007, 118, 389-398.	4.8	55
30	Complete tissue coverage achieved by scaffold-based tissue engineering in the fetal sheep model of Myelomeningocele. Biomaterials, 2016, 76, 133-143.	5.7	54
31	Combination of BMP-2-releasing gelatin/Î²-TCP sponges with autologous bone marrow for bone regeneration of X-ray-irradiated rabbit ulnar defects. Biomaterials, 2015, 56, 18-25.	5.7	53
32	Stromalâ€derived factorâ€1 delivered via hydrogel drugâ€delivery vehicle accelerates wound healing in vivo. Wound Repair and Regeneration, 2011, 19, 420-425.	1.5	52
33	Tissue engineering by modulated gene deliveryâ˜†. Advanced Drug Delivery Reviews, 2006, 58, 535-554.	6.6	51
34	Ultrastructure of the interface between cultured osteoblasts and surface-modified polymer substrates. , 1997, 37, 29-36.		50
35	Biomechanical evaluation of regenerating long bone by nanoindentation. Journal of Materials Science: Materials in Medicine, 2011, 22, 969-976.	1.7	50
36	Bone Regeneration Using a Bone Morphogenetic Protein-2 Saturated Slow-Release Gelatin Hydrogel Sheet. Annals of Plastic Surgery, 2010, 64, 496-502.	0.5	49

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37	Safety and efficacy of sustained release of basic fibroblast growth factor using gelatin hydrogel in patients with critical limb ischemia. Heart and Vessels, 2016, 31, 713-721.	0.5	49
38	Vascularization into a porous sponge by sustained release of basic fibroblast growth factor. Journal of Biomaterials Science, Polymer Edition, 1999, 10, 957-968.	1.9	48
39	Promotion of fibrovascular tissue ingrowth into porous sponges by basic fibroblast growth factor. Journal of Materials Science: Materials in Medicine, 2000, 11, 213-218.	1.7	46
40	Preparation of Cationized Polysaccharides as Gene Transfection Carrier for Bone Marrow-Derived Mesenchymal Stem Cells. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 185-204.	1.9	41
41	Blood Clearance and Biodistribution of Polymer Brush-Afforded Silica Particles Prepared by Surface-Initiated Living Radical Polymerization. Biomacromolecules, 2012, 13, 927-936.	2.6	39
42	BMP-2 release and dose-response studies in hydroxyapatite and Î²-tricalcium phosphate. Bio-Medical Materials and Engineering, 2009, 19, 141-146.	0.4	38
43	A Study of Magnetic Drug Delivery System Using Bulk High Temperature Superconducting Magnet. IEEE Transactions on Applied Superconductivity, 2008, 18, 874-877.	1.1	37
44	Generation of Stable Co-Cultures of Vascular Cells in a Honeycomb Alginate Scaffold. Tissue Engineering - Part A, 2010, 16, 299-308.	1.6	37
45	Growth Factor Release from Gelatin Hydrogel for Tissue Engineering. Journal of Bioactive and Compatible Polymers, 1999, 14, 474-489.	0.8	36
46	Tracheal cartilage regeneration by slow release of basic fibroblast growth factor from a gelatin sponge. Journal of Thoracic and Cardiovascular Surgery, 2007, 134, 170-175.	0.4	36
47	Improved Therapeutic Efficacy in Cardiomyocyte Transplantation for Myocardial Infarction with Release System of Basic Fibroblast Growth Factor. Artificial Organs, 2003, 27, 181-184.	1.0	35
48	Liver Targeting of Plasmid DNA with a Cationized Pullulan for Tumor Suppression. Journal of Nanoscience and Nanotechnology, 2006, 6, 2853-2859.	0.9	32
49	Basic fibroblast growth factor combined with biodegradable hydrogel promotes healing of facial nerve after compression injury: An experimental study. Acta Oto-Laryngologica, 2010, 130, 173-178.	0.3	30
50	Repairing of rabbit skull defect by dehydrothermally crosslinked collagen sponges incorporating transforming growth factor Î²1. Journal of Controlled Release, 2003, 88, 55-64.	4.8	29
51	Exploratory clinical trial of combination wound therapy with a gelatin sheet and platelet-rich plasma in patients with chronic skin ulcers: study protocol. BMJ Open, 2015, 5, e007733-e007733.	0.8	27
52	Role of Stress Distribution on Healing Process of Preferential Alignment of Biological Apatite in Long Bones. Materials Science Forum, 2006, 512, 261-264.	0.3	26
53	Blood permeability of a novel ceramic scaffold for bone morphogenetic protein-2. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 81B, 469-475.	1.6	26
54	A therapeutic angiogenesis of sustained release of basic fibroblast growth factor using biodegradable gelatin hydrogel sheets in a canine chronic myocardial infarction model. Heart and Vessels, 2018, 33, 1251-1257.	0.5	25

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55	Cartilage Regeneration Using Slow Release of Bone Morphogenetic Protein-2 from a Gelatin Sponge to Treat Experimental Canine Tracheomalacia: A Preliminary Report. ASAIO Journal, 2003, 49, 63-69.	0.9	24
56	Carrier dependent cell differentiation of bone morphogenetic protein-2 induced osteogenesis and chondrogenesis during the early implantation stage in rats. Journal of Biomedical Materials Research Part B, 2004, 71A, 181-189.	3.0	24
57	Orientation-regulated immobilization of Jagged1 on glass substrates for exÂvivo proliferation of a bone marrow cell population containing hematopoietic stem cells. Biomaterials, 2011, 32, 6920-6928.	5.7	24
58	Control-Released Hepatocyte Growth Factor Prevents the Progression of Heart Failure in Stroke-Prone Spontaneously Hypertensive Rats. Annals of Thoracic Surgery, 2005, 79, 1627-1634.	0.7	23
59	Regeneration of Canine Tracheal Cartilage by Slow Release of Basic Fibroblast Growth Factor from Gelatin Sponge. ASAIO Journal, 2006, 52, 86-91.	0.9	23
60	Expression profile of plasmid DNA obtained using spermine derivatives of pullulan with different molecular weights. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 883-899.	1.9	23
61	Preparation of polymer-based multimodal imaging agent to visualize the process of bone regeneration. Journal of Controlled Release, 2012, 157, 398-405.	4.8	23
62	Comparative physicochemical properties and cytotoxicity of polyphosphoester ionomers with bisphosphonates. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 882-895.	1.9	22
63	Fabrication of hydrogels with elasticity changed by alkaline phosphatase for stem cell culture. Acta Biomaterialia, 2016, 29, 215-227.	4.1	22
64	Biodegradable hydrogels for bone regeneration through growth factor release. Pure and Applied Chemistry, 1998, 70, 1277-1282.	0.9	21
65	Enhanced Regeneration of Critical Bone Defects Using a Biodegradable Gelatin Sponge and Î²-Tricalcium Phosphate with Bone Morphogenetic Protein-2. Journal of Biomaterials Applications, 2009, 24, 327-342.	1.2	20
66	Controlled Release of Matrix Metalloproteinase-1 Plasmid DNA Prevents Left Ventricular Remodeling in Chronic Myocardial Infarction of Rats. Circulation Journal, 2009, 73, 2315-2321.	0.7	20
67	Osteogenic Differentiation of Bone-Marrow-Derived Stem Cells Cultured with Mixed Gelatin and Chitooligosaccharide Scaffolds. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 1083-1098.	1.9	19
68	Fast and effective mitochondrial delivery of ï‰-Rhodamine-B-polysulfobetaine-PEG copolymers. Scientific Reports, 2018, 8, 1128.	1.6	19
69	Design of magnetic gene complexes as effective and serum resistant gene delivery systems for mesenchymal stem cells. International Journal of Pharmaceutics, 2017, 520, 1-13.	2.6	17
70	Experimental Study of Bone Morphogenetic Proteins-2 Slow Release From an Artificial Trachea Made of Biodegradable Materials: Evaluation of Stenting Time. ASAIO Journal, 2003, 49, 533-536.	0.9	16
71	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
72	Effect of the Structure of Bone Morphogenetic Protein Carriers on Ectopic Bone Regeneration. Tissue Engineering, 1996, 2, 315-326.	4.9	13

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73	EFFECTS OF APPLIED STRESS ON PREFERENTIAL ALIGNMENT OF BIOLOGICAL APATITE IN RABBIT FORELIMB BONES. Phosphorus Research Bulletin, 2004, 17, 77-82.	0.1	13
74	Role of Osteoclast in Preferential Alignment of Biological Apatite (BAp) in Long Bones. Materials Science Forum, 2006, 512, 265-268.	0.3	13
75	Generation of Type I Collagen Gradient in Polyacrylamide Hydrogels by a Simple Diffusion-Controlled Hydrolysis of Amide Groups. Materials, 2010, 3, 2393-2404.	1.3	13
76	Design of an LCSTâ€“UCST-Like Thermoresponsive Zwitterionic Copolymer. Langmuir, 2021, 37, 3261-3269.	1.6	13
77	Widespread and Early Tracheal Cartilage Regeneration by Synchronous Slow Release of b-FGF and BMP-2. ASAIO Journal, 2009, 55, 266-270.	0.9	12
78	Effect of Amine Type on the Expression of Plasmid DNA by Cationized Dextran. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 225-236.	1.9	12
79	Scaffold biomaterials for nano-pathophysiology. Advanced Drug Delivery Reviews, 2014, 74, 104-114.	6.6	12
80	The Design of Sulfobetaine Polymers with Thermoresponsiveness under Physiological Salt Conditions. Macromolecular Chemistry and Physics, 2020, 221, 1900429.	1.1	12
81	BMP-2 Dose-Response and Release Studies in Functionally Graded HAp. Key Engineering Materials, 2006, 309-311, 965-968.	0.4	11
82	Tracheal Cartilage Regeneration and New Bone Formation by Slow Release of Bone Morphogenetic Protein (BMP)-2. ASAIO Journal, 2008, 54, 104-108.	0.9	11
83	3D in vitro Model of Vascular Medial Thickening in Pulmonary Arterial Hypertension. Frontiers in Bioengineering and Biotechnology, 2020, 8, 482.	2.0	11
84	Crystallographic Approach to Regenerated and Pathological Hard Tissues. Materials Science Forum, 2006, 512, 255-260.	0.3	10
85	Internalization Mechanisms of Pyridinium Sulfobetaine Polymers Evaluated by Induced Protic Perturbations on Cell Surfaces. Langmuir, 2020, 36, 9977-9984.	1.6	10
86	Effect of hydrogel elasticity and ephrinB2-immobilized manner on Runx2 expression of human mesenchymal stem cells. Acta Biomaterialia, 2017, 58, 312-322.	4.1	9
87	Addition of glycerol enhances the flexibility of gelatin hydrogel sheets; application for in utero tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 921-931.	1.6	8
88	Magnetic nanoparticles-based DDS therapeutic system of next generation for deep body site. Drug Delivery System, 2007, 22, 558-568.	0.0	7
89	Intrapleural administration of gelatin-embedded, sustained-release basic fibroblast growth factor for the regeneration of emphysematous lungs in rats. Journal of Thoracic and Cardiovascular Surgery, 2014, 147, 1644-1649.	0.4	7
90	Change in Material and Structural Parameters of Bone Mechanical Function during Long-Bone Regeneration. Materials Science Forum, 2007, 561-565, 1451-1454.	0.3	4

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91	Preparation of cell aggregates incorporating gelatin hydrogel microspheres of sugarâ€responsive water solubilization. Journal of Tissue Engineering and Regenerative Medicine, 2020, 14, 1050-1062.	1.3	4
92	Easy-to-Use Preservation and Application of Platelet-Rich Plasma in Combination Wound Therapy With a Gelatin Sheet and Freeze-Dried Platelet-Rich Plasma: A Case Report. Eplasty, 2016, 16, e22.	0.4	4
93	Design of an osteoinductive biodegradable cell scaffold based on controlled release technology of bone morphogenetic protein. Israel Journal of Chemistry, 2005, 45, 465-475.	1.0	3
94	Controlled Release of Matrix Metalloproteinase 1 with or without Skeletal Myoblasts Transplantation Improves Cardiac Function of Rat Hearts with Chronic Myocardial Infarction. Tissue Engineering - Part A, 2009, 15, 2699-2706.	1.6	3
95	Control of Mitochondrial Localization Using Thermoresponsive Sulfobetaine Polymer. Macromolecular Bioscience, 2020, 20, e2000205.	2.1	3
96	The Effect of Partial Dissolution-Precipitation Treatment on Calcium Phosphate Ceramics in the Release of BMP-2 and Osteoinduction. Journal of Hard Tissue Biology, 2012, 21, 459-468.	0.2	3
97	Effective Permeation of Anticancer Drugs into Glioblastoma Spheroids via Conjugation with a Sulfobetaine Copolymer. Biomacromolecules, 2020, 21, 5044-5052.	2.6	3
98	Biologic anastomosis: The first case of biologic coronary bypass surgery. Journal of Thoracic and Cardiovascular Surgery, 2009, 138, 775-777.	0.4	2
99	Safety and durability of the biodegradable felt in aortic surgery: a propensity score-matched studyâ€. European Journal of Cardio-thoracic Surgery, 2018, 54, 361-368.	0.6	2
100	Sulfobetaine polymers for effective permeability into multicellular tumor spheroids (MCTSs). Journal of Materials Chemistry B, 2022, 10, 2649-2660.	2.9	2
101	Basic Fibroblast Growth Factor and Angiogenesis. , 2005, , 145-156.		1
102	Bone Induction by Controlled Release of BMP-2 from a Biodegradable Hydrogel in Various Animal Species - From Mouse to Non-Human Primate -. Key Engineering Materials, 2005, 288-289, 253-256.	0.4	1
103	Comparison of HAp and Î²-TCP in BMP-2 Dose-Response and Release Study. Key Engineering Materials, 2007, 361-363, 1033-1036.	0.4	1
104	Controlled release of growth factors from biodegradable hydrogels based on polyion complexation.. Drug Delivery System, 1999, 14, 506-510.	0.0	1
105	Enhanced Osteoinduction by Biodegradable Gelatin-.BETA.-tricalcium Phosphate Sponge Capable for Bone Morphogenetic Protein Release. Journal of Hard Tissue Biology, 2005, 14, 286-287.	0.2	1
106	FT-IR analysis of phosphorylation and laser-dephosphorylation process. , 2005, , .		0
107	Laser-dephosphorylation of phosphogelatin and its indirect quantitative analysis using FT-IR. , 2006, 6084, 252.		0
108	Control of guided hard-tissue regeneration using phosphorylated gelatin and OCT imaging of calcification. , 2007, , .		0

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109	Effect of Isoelectric Point on Enzyme Immobilization Property of Magnetic Apatite Microcapsules Encapsulating Maghemite. Key Engineering Materials, 0, 758, 178-183.	0.4	0
110	Studies on Sandwich Culture by Making Use of Biofunctional Hydrogels as a Three-Dimensional Culture Environment. Kobunshi Ronbunshu, 2018, 75, 23-31.	0.2	0
111	Induction therapy of tissue regeneration based on tissue engineering Induction therapy of tissue regeneration for chronic fibrotic diseases. Drug Delivery System, 2005, 20, 110-117.	0.0	0
112	Enhanced Bone Regeneration at a Segmental Bone Defect by Controlled Release of Bone Morphogenetic Protein-2 from a Biodegradable Hydrogel. Tissue Engineering, 2006, .	4.9	0
113	Skull Bone Regeneration in Nonhuman Primates by Controlled Release of Bone Morphogenetic Protein-2 from a Biodegradable Hydrogel. Tissue Engineering, 2007, .	4.9	0
114	Protocol of Osteoblastic Differentiation of BMSC in Biodegradable Scaffolds Composed of Gelatin and Î²-Tricalcium Phosphate. Manuals in Biomedical Research, 2014, , 83-90.	0.0	0
115	Bone regeneration at rabbit skull defects by gelatin hydrogels incorporating transforming growth factor-.BETA.1.. Drug Delivery System, 1999, 14, 43-50.	0.0	0
116	Recent Challenges in Biomaterialsâ€“based Regenerative Medicine. Membrane, 2020, 45, 250-254.	0.0	0
117	Development of a spheroid-permeable polymer. Drug Delivery System, 2021, 36, 248-255.	0.0	0