Ung-Il Chung

List of Publications by Year in descending order

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243 papers

14,595 citations

63 h-index 22166 113 g-index

254 all docs

254 docs citations

254 times ranked

15771 citing authors

#	Article	IF	CITATIONS
1	Design and Fabrication of a High-Strength Hydrogel with Ideally Homogeneous Network Structure from Tetrahedron-like Macromonomers. Macromolecules, 2008, 41, 5379-5384.	4.8	1,040
2	PPAR \hat{I}^3 insufficiency enhances osteogenesis through osteoblast formation from bone marrow progenitors. Journal of Clinical Investigation, 2004, 113, 846-855.	8.2	701
3	Surface grafting of artificial joints with a biocompatible polymer for preventing periprosthetic osteolysis. Nature Materials, 2004, 3, 829-836.	27.5	528
4	"Nonswellable―Hydrogel Without Mechanical Hysteresis. Science, 2014, 343, 873-875.	12.6	511
5	Transcriptional regulation of endochondral ossification by HIF- $2\hat{l}_{\pm}$ during skeletal growth and osteoarthritis development. Nature Medicine, 2010, 16, 678-686.	30.7	443
6	Indian hedgehog couples chondrogenesis to osteogenesis in endochondral bone development. Journal of Clinical Investigation, 2001, 107, 295-304.	8.2	356
7	The combination of SOX5, SOX6, and SOX9 (the SOX trio) provides signals sufficient for induction of permanent cartilage. Arthritis and Rheumatism, 2004, 50, 3561-3573.	6.7	322
8	3D spheroid culture system on micropatterned substrates for improved differentiation efficiency of multipotent mesenchymal stem cells. Biomaterials, 2009, 30, 2705-2715.	11.4	301
9	Regulation of bone formation by adiponectin through autocrine/paracrine and endocrine pathways. Journal of Cellular Biochemistry, 2006, 99, 196-208.	2.6	255
10	Heparin Potentiates the in Vivo Ectopic Bone Formation Induced by Bone Morphogenetic Protein-2. Journal of Biological Chemistry, 2006, 281, 23246-23253.	3.4	251
11	Structure Characterization of Tetra-PEG Gel by Small-Angle Neutron Scattering. Macromolecules, 2009, 42, 1344-1351.	4.8	247
12	Regulation of osteoclast apoptosis by ubiquitylation of proapoptotic BH3-only Bcl-2 family member Bim. EMBO Journal, 2003, 22, 6653-6664.	7.8	227
13	SANS and SLS Studies on Tetra-Arm PEG Gels in As-Prepared and Swollen States. Macromolecules, 2009, 42, 6245-6252.	4.8	227
14	Akt1 in Osteoblasts and Osteoclasts Controls Bone Remodeling. PLoS ONE, 2007, 2, e1058.	2.5	214
15	Excessive mechanical loading promotes osteoarthritis through the gremlin-1–NF-κB pathway. Nature Communications, 2019, 10, 1442.	12.8	179
16	Cartilage tissue engineering using human auricular chondrocytes embedded in different hydrogel materials. Journal of Biomedical Materials Research - Part A, 2006, 78A, 1-11.	4.0	178
17	Transition between Phantom and Affine Network Model Observed in Polymer Gels with Controlled Network Structure. Macromolecules, 2013, 46, 1035-1040.	4.8	172
18	Connectivity and Structural Defects in Model Hydrogels: A Combined Proton NMR and Monte Carlo Simulation Study. Macromolecules, 2011, 44, 9666-9674.	4.8	161

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19	Icariin induces osteogenic differentiation in vitro in a BMP- and Runx2-dependent manner. Biochemical and Biophysical Research Communications, 2008, 369, 444-448.	2.1	158
20	Notch signaling in chondrocytes modulates endochondral ossification and osteoarthritis development. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1875-1880.	7.1	152
21	Fast-forming hydrogel with ultralow polymeric content as an artificial vitreous body. Nature Biomedical Engineering, 2017, $1,\dots$	22.5	150
22	Stimulatory G protein directly regulates hypertrophic differentiation of growth plate cartilage <i>in vivo</i> . Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14794-14799.	7.1	141
23	The canonical Wnt signaling pathway promotes chondrocyte differentiation in a Sox9-dependent manner. Biochemical and Biophysical Research Communications, 2005, 333, 1300-1308.	2.1	141
24	Involvement of Endogenous Bone Morphogenetic Protein (BMP) 2 and BMP6 in Bone Formation. Journal of Biological Chemistry, 2005, 280, 35704-35712.	3.4	140
25	C/EBPÎ 2 and RUNX2 cooperate to degrade cartilage with MMP-13 as the target and HIF-2Î \pm as the inducer in chondrocytes. Human Molecular Genetics, 2012, 21, 1111-1123.	2.9	137
26	Highly Elastic and Deformable Hydrogel Formed from Tetraâ€arm Polymers. Macromolecular Rapid Communications, 2010, 31, 1954-1959.	3.9	136
27	GSK-3Î ² Controls Osteogenesis through Regulating Runx2 Activity. PLoS ONE, 2007, 2, e837.	2.5	134
28	Examination of the Theories of Rubber Elasticity Using an Ideal Polymer Network. Macromolecules, 2011, 44, 5817-5821.	4.8	133
29	The PTH/PTHrP Receptor Can Delay Chondrocyte Hypertrophy In Vivo without Activating Phospholipase C. Developmental Cell, 2002, 3, 183-194.	7.0	130
30	High-performance ion gel with tetra-PEG network. Soft Matter, 2012, 8, 1756-1759.	2.7	129
31	Direct cell–cell contact between mature osteoblasts and osteoclasts dynamically controls their functions in vivo. Nature Communications, 2018, 9, 300.	12.8	128
32	Cyclic GMP-dependent protein kinase II is a molecular switch from proliferation to hypertrophic differentiation of chondrocytes. Genes and Development, 2004, 18, 2418-2429.	5.9	119
33	Yielding Criteria of Double Network Hydrogels. Macromolecules, 2016, 49, 1865-1872.	4.8	119
34	Bone Regeneration by Regulated In Vivo Gene Transfer Using Biocompatible Polyplex Nanomicelles. Molecular Therapy, 2007, 15, 1655-1662.	8.2	116
35	Patched1 Haploinsufficiency Increases Adult BoneÂMass and Modulates Gli3 Repressor Activity. Developmental Cell, 2008, 14, 689-699.	7.0	116
36	Maxillofacial reconstruction using custom-made artificial bones fabricated by inkjet printing technology. Journal of Artificial Organs, 2009, 12, 200-205.	0.9	115

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37	Evaluation of Topological Defects in Tetra-PEG Gels. Macromolecules, 2010, 43, 488-493.	4.8	112
38	Distinct roles of Sox5, Sox6, and Sox9 in different stages of chondrogenic differentiation. Journal of Bone and Mineral Metabolism, 2005, 23, 337-340.	2.7	111
39	PTH/PTHrP receptor delays chondrocyte hypertrophy via both Runx2-dependent and -independent pathways. Developmental Biology, 2006, 292, 116-128.	2.0	108
40	Design of Hydrogels for Biomedical Applications. Advanced Healthcare Materials, 2015, 4, 2360-2374.	7.6	108
41	Impaired bone fracture healing in matrix metalloproteinase-13 deficient mice. Biochemical and Biophysical Research Communications, 2007, 354, 846-851.	2.1	102
42	Fracture energy of polymer gels with controlled network structures. Journal of Chemical Physics, 2013, 139, 144905.	3.0	102
43	S100A1 and S100B, transcriptional targets of SOX trio, inhibit terminal differentiation of chondrocytes. EMBO Reports, 2007, 8, 504-509.	4.5	99
44	Synthesis and Fracture Process Analysis of Double Network Hydrogels with a Well-Defined First Network. ACS Macro Letters, 2013, 2, 518-521.	4.8	99
45	Icariin: A Potential Osteoinductive Compound for Bone Tissue Engineering. Tissue Engineering - Part A, 2010, 16, 233-243.	3.1	94
46	Targeted therapy of spontaneous murine pancreatic tumors by polymeric micelles prolongs survival and prevents peritoneal metastasis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11397-11402.	7.1	91
47	Transcription factor Hes1 modulates osteoarthritis development in cooperation with calcium/calmodulin-dependent protein kinase 2. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3080-3085.	7.1	84
48	C/EBP \hat{I}^2 Promotes Transition from Proliferation to Hypertrophic Differentiation of Chondrocytes through Transactivation of p57Kip2. PLoS ONE, 2009, 4, e4543.	2.5	84
49	Optimal Combination of Soluble Factors for Tissue Engineering of Permanent Cartilage from Cultured Human Chondrocytes. Journal of Biological Chemistry, 2007, 282, 20407-20415.	3.4	83
50	Stepwise Differentiation of Pluripotent Stem Cells into Osteoblasts Using Four Small Molecules under Serum-free and Feeder-free Conditions. Stem Cell Reports, 2014, 2, 751-760.	4.8	80
51	Development of an osteoblast-based 3D continuous-perfusion microfluidic system for drug screening. Analytical and Bioanalytical Chemistry, 2008, 390, 825-832.	3.7	77
52	Tailor-made tricalcium phosphate bone implant directly fabricated by a three-dimensional ink-jet printer. Journal of Artificial Organs, 2006, 9, 234-240.	0.9	76
53	Gli1 Protein Participates in Hedgehog-mediated Specification of Osteoblast Lineage during Endochondral Ossification. Journal of Biological Chemistry, 2012, 287, 17860-17869.	3.4	75
54	A novel disease-modifying osteoarthritis drug candidate targeting Runx1. Annals of the Rheumatic Diseases, 2013, 72, 748-753.	0.9	75

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55	Gene delivery with biocompatible cationic polymer: Pharmacogenomic analysis on cell bioactivity. Biomaterials, 2007, 28, 5169-5175.	11.4	74
56	Biphasic regulation of chondrocytes by Rela through induction of anti-apoptotic and catabolic target genes. Nature Communications, 2016, 7, 13336.	12.8	73
57	Bone regeneration by human dental pulp stem cells using a helioxanthin derivative and cell-sheet technology. Stem Cell Research and Therapy, 2018, 9, 24.	5.5	73
58	Distinct effects of PPAR $\hat{1}^3$ insufficiency on bone marrow cells, osteoblasts, and osteoclastic cells. Journal of Bone and Mineral Metabolism, 2005, 23, 275-279.	2.7	71
59	Haematopoietic stem cells depend on Gαs-mediated signalling to engraft bone marrow. Nature, 2009, 459, 103-107.	27.8	69
60	Distinct osteogenic mechanisms of bones of distinct origins. Journal of Orthopaedic Science, 2004, 9, 410-414.	1.1	67
61	Precise Control and Prediction of Hydrogel Degradation Behavior. Macromolecules, 2011, 44, 3567-3571.	4.8	67
62	Evaluation of Gelation Kinetics of Tetra-PEG Gel. Macromolecules, 2010, 43, 3935-3940.	4.8	66
63	Effect of swelling and deswelling on the elasticity of polymer networks in the dilute to semi-dilute region. Soft Matter, 2012, 8, 2730.	2.7	66
64	Ectopic expression of vasopressin V1b and V2 receptors in the adrenal glands of familial ACTH-independent macronodular adrenal hyperplasia. Clinical Endocrinology, 2005, 63, 625-630.	2.4	65
65	Harmine promotes osteoblast differentiation through bone morphogenetic protein signaling. Biochemical and Biophysical Research Communications, 2011, 409, 260-265.	2.1	65
66	The Interaction between Ku Antigen and REF1 Protein Mediates Negative Gene Regulation by Extracellular Calcium. Journal of Biological Chemistry, 1996, 271, 8593-8598.	3.4	64
67	Transcription Factor YY1 Contributes to Tumor Growth by Stabilizing Hypoxia Factor HIF- $1\hat{l}\pm$ in a p53-Independent Manner. Cancer Research, 2013, 73, 1787-1799.	0.9	62
68	Impairment of Bone Healing by Insulin Receptor Substrate-1 Deficiency. Journal of Biological Chemistry, 2004, 279, 15314-15322.	3.4	61
69	Synthesis and Mechanical Properties of a Nanocomposite Gel Consisting of a Tetra-PEG/Clay Network. Macromolecules, 2010, 43, 4370-4378.	4.8	61
70	Identification of Fibroblast Growth Factor-18 as a Molecule to Protect Adult Articular Cartilage by Gene Expression Profiling. Journal of Biological Chemistry, 2014, 289, 10192-10200.	3.4	61
71	Identification of the core element responsive to runtâ€related transcription factor 2 in the promoter of human type x collagen gene. Arthritis and Rheumatism, 2009, 60, 166-178.	6.7	59
72	Transcriptional Induction of ADAMTS5 Protein by Nuclear Factor-κB (NF-κB) Family Member RelA/p65 in Chondrocytes during Osteoarthritis Development. Journal of Biological Chemistry, 2013, 288, 28620-28629.	3.4	59

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73	Nonâ€Osmotic Hydrogels: A Rational Strategy for Safely Degradable Hydrogels. Angewandte Chemie - International Edition, 2016, 55, 9282-9286.	13.8	58
74	Carminerin contributes to chondrocyte calcification during endochondral ossification. Nature Medicine, 2006, 12, 665-670.	30.7	55
75	Targeted deletion of the Nesp55 DMR defines another <i>Gnas</i> imprinting control region and provides a mouse model of autosomal dominant PHP-lb. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9275-9280.	7.1	55
76	Regulatory mechanism for the stimulatory action of genistein on glucose uptake in vitro and in vivo. Journal of Nutritional Biochemistry, 2012, 23, 501-509.	4.2	55
77	SANS Studies on Tetra-PEG Gel under Uniaxial Deformation. Macromolecules, 2011, 44, 1203-1210.	4.8	54
78	Hedgehog-Gli Activators Direct Osteo-chondrogenic Function of Bone Morphogenetic Protein toward Osteogenesis in the Perichondrium. Journal of Biological Chemistry, 2013, 288, 9924-9932.	3.4	53
79	Understanding paraxial mesoderm development and sclerotome specification for skeletal repair. Experimental and Molecular Medicine, 2020, 52, 1166-1177.	7.7	53
80	Phosphorylation of GSK- $3\hat{l}^2$ by cGMP-dependent protein kinase II promotes hypertrophic differentiation of murine chondrocytes. Journal of Clinical Investigation, 2008, 118, 2506-15.	8.2	53
81	Mechanism of osteogenic induction by FK506 via BMP/Smad pathways. Biochemical and Biophysical Research Communications, 2005, 338, 872-879.	2.1	51
82	Krýppel-like Factor 5 Causes Cartilage Degradation through Transactivation of Matrix Metalloproteinase 9. Journal of Biological Chemistry, 2008, 283, 24682-24689.	3.4	51
83	Reliable Hydrogel with Mechanical "Fuse Link―in an Aqueous Environment. Advanced Materials, 2015, 27, 7407-7411.	21.0	51
84	Enhancement of Angiogenesis Through Stabilization of Hypoxia-inducible Factor-1 by Silencing Prolyl Hydroxylase Domain-2 Gene. Molecular Therapy, 2008, 16, 1227-1234.	8.2	48
85	Akt1 in murine chondrocytes controls cartilage calcification during endochondral ossification under physiologic and pathologic conditions. Arthritis and Rheumatism, 2010, 62, 826-836.	6.7	47
86	Ultimate elongation of polymer gels with controlled network structure. RSC Advances, 2013, 3, 13251.	3.6	47
87	Sol-gel transition behavior near critical concentration and connectivity. Polymer Journal, 2016, 48, 629-634.	2.7	47
88	Three-dimensional system enabling the maintenance and directed differentiation of pluripotent stem cells under defined conditions. Science Advances, 2017, 3, e1602875.	10.3	47
89	Kinetic Study for AB-Type Coupling Reaction of Tetra-Arm Polymers. Macromolecules, 2012, 45, 1031-1036.	4.8	45
90	Analysis of the Runx2 promoter in osseous and non-osseous cells and identification of HIF2A as a potent transcription activator. Gene, 2008, 416, 53-60.	2.2	43

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91	GSK-3 \hat{l} ± and GSK-3 \hat{l} 2 Proteins Are Involved in Early Stages of Chondrocyte Differentiation with Functional Redundancy through RelA Protein Phosphorylation*. Journal of Biological Chemistry, 2012, 287, 29227-29236.	3.4	43
92	Structural Analysis of High Performance Ion-Gel Comprising Tetra-PEG Network. Macromolecules, 2012, 45, 3902-3909.	4.8	42
93	A novel osteogenic helioxanthin-derivative acts in a BMP-dependent manner. Biochemical and Biophysical Research Communications, 2007, 357, 854-860.	2.1	41
94	Rubber elasticity for incomplete polymer networks. Journal of Chemical Physics, 2012, 137, 224903.	3.0	40
95	Strain energy density function of a near-ideal polymer network estimated by biaxial deformation of Tetra-PEG gel. Soft Matter, 2012, 8, 8217.	2.7	40
96	Lack of a chondroprotective effect of cyclooxygenase 2 inhibition in a surgically induced model of osteoarthritis in mice. Arthritis and Rheumatism, 2012, 64, 198-203.	6.7	39
97	Wnt/ \hat{l}^2 -catenin signaling contributes to articular cartilage homeostasis through lubricin induction in the superficial zone. Arthritis Research and Therapy, 2019, 21, 247.	3.5	38
98	Pivotal Role of Bcl-2 Family Proteins in the Regulation of Chondrocyte Apoptosis. Journal of Biological Chemistry, 2008, 283, 26499-26508.	3.4	34
99	A validation study of a consumer wearable sleep tracker compared to a portable EEG system in naturalistic conditions. Journal of Psychosomatic Research, 2019, 126, 109822.	2.6	34
100	Deficiency of Insulin Receptor Substrate-1 Impairs Skeletal Growth Through Early Closure of Epiphyseal Cartilage. Journal of Bone and Mineral Research, 2003, 19, 214-223.	2.8	33
101	ldentification of a potent combination of osteogenic genes for bone regeneration using embryonic stem (ES) cellâ€based sensor. FASEB Journal, 2007, 21, 1777-1787.	0.5	33
102	Gli1 Haploinsufficiency Leads to Decreased Bone Mass with an Uncoupling of Bone Metabolism in Adult Mice. PLoS ONE, 2014, 9, e109597.	2.5	33
103	Signaling pathways regulating the specification and differentiation of the osteoblast lineage. Regenerative Therapy, 2015, 1 , 57-62.	3.0	32
104	Diffusion Behavior of Water Molecules in Hydrogels with Controlled Network Structure. Macromolecules, 2019, 52, 1923-1929.	4.8	32
105	Tri-branched gels: Rubbery materials with the lowest branching factor approach the ideal elastic limit. Science Advances, 2022, 8, eabk0010.	10.3	32
106	Experimental Observation of Two Features Unexpected from the Classical Theories of Rubber Elasticity. Physical Review Letters, 2017, 119, 267801.	7.8	31
107	Simple and Robust Differentiation of Human Pluripotent Stem Cells toward Chondrocytes by Two Small-Molecule Compounds. Stem Cell Reports, 2019, 13, 530-544.	4.8	31
108	Association of microsomal prostaglandin E synthase 1 deficiency with impaired fracture healing, but not with bone loss or osteoarthritis, in mouse models of skeletal disorders. Arthritis and Rheumatism, 2008, 58, 172-183.	6.7	30

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109	Structure-property relationship of a model network containing solvent. Science and Technology of Advanced Materials, 2019, 20, 608-621.	6.1	30
110	Mechanical Properties of Polymer Gels with Bimodal Distribution in Strand Length. Macromolecules, 2013, 46, 7027-7033.	4.8	29
111	Molecular and structural patterns of bone regeneration in surgically created defects containing bone substitutes. Biomaterials, 2014, 35, 3229-3242.	11.4	28
112	Bone Regenerative Medicine in Oral and Maxillofacial Region Using a Three-Dimensional Printer . Tissue Engineering - Part A, 2017, 23, 515-521.	3.1	28
113	Continuous Activation of Gαq in Osteoblasts Results in Osteopenia through Impaired Osteoblast Differentiation. Journal of Biological Chemistry, 2007, 282, 35757-35764.	3.4	27
114	Cell-sheet technology combined with a thienoindazole derivative small compound TD-198946 for cartilage regeneration. Biomaterials, 2013, 34, 5581-5587.	11.4	27
115	Mechanical properties of tetra-PEG gels with supercoiled network structure. Journal of Chemical Physics, 2014, 140, 074902.	3.0	27
116	Runx1 contributes to articular cartilage maintenance by enhancement of cartilage matrix production and suppression of hypertrophic differentiation. Scientific Reports, 2019, 9, 7666.	3.3	27
117	Computed tomographic evaluation of novel custom-made artificial bones, "CT-boneâ€, applied for maxillofacial reconstruction. Regenerative Therapy, 2016, 5, 1-8.	3.0	26
118	Synergistic effects of FGF-2 with insulin or IGF-I on the proliferation of human auricular chondrocytes. Cell Transplantation, 2005, 14, 683-93.	2.5	26
119	Bone healing by sterilizable calcium phosphate tetrapods eluting osteogenic molecules. Biomaterials, 2013, 34, 5530-5537.	11.4	25
120	Generation of Col2a1-EGFP iPS Cells for Monitoring Chondrogenic Differentiation. PLoS ONE, 2013, 8, e74137.	2.5	25
121	Tenomodulin Expression in the Periodontal Ligament Enhances Cellular Adhesion. PLoS ONE, 2013, 8, e60203.	2.5	25
122	Degradation Behavior of Polymer Gels Caused by Nonspecific Cleavages of Network Strands. Chemistry of Materials, 2014, 26, 5352-5357.	6.7	24
123	Connectivity dependence of gelation and elasticity in AB-type polymerization: an experimental comparison of the dynamic process and stoichiometrically imbalanced mixing. Soft Matter, 2019, 15, 5017-5025.	2.7	24
124	Coordination of chondrogenesis and osteogenesis by hypertrophic chondrocytes in endochondral bone development. Journal of Bone and Mineral Metabolism, 2010, 28, 489-502.	2.7	23
125	$\widehat{Gl}\pm q$ Signal in Osteoblasts Is Inhibitory to the Osteoanabolic Action of Parathyroid Hormone. Journal of Biological Chemistry, 2011, 286, 13733-13740.	3.4	23
126	Electrophoretic Mobility of Double-Stranded DNA in Polymer Solutions and Gels with Tuned Structures. Macromolecules, 2014, 47, 3582-3586.	4.8	23

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127	Parathyroid hormone-related peptide (PTHrP) induces parietal endoderm formation exclusively via the Type I PTH/PTHrP receptor. Mechanisms of Development, 1999, 81, 151-161.	1.7	22
128	Aquaporin-5 Expression, but Not Other Peripheral Lung Marker Genes, Is Reduced in PTH/PTHrP Receptor Null Mutant Fetal Mice. American Journal of Respiratory Cell and Molecular Biology, 2000, 22, 367-372.	2.9	22
129	SRC-1 Is Necessary for Skeletal Responses to Sex Hormones in Both Males and Females. Journal of Bone and Mineral Research, 2004, 19, 1452-1461.	2.8	22
130	Development of high-throughput screening system for osteogenic drugs using a cell-based sensor. Biochemical and Biophysical Research Communications, 2008, 376, 375-379.	2.1	22
131	Tissue engineering of bone and cartilage. IBMS BoneKEy, 2009, 6, 405-419.	0.0	22
132	Permeation of Water through Hydrogels with Controlled Network Structure. Macromolecules, 2017, 50, 9411-9416.	4.8	22
133	Suppression of Adjuvant-Induced Arthritic Bone Destruction by Cyclooxygenase-2 Selective Agents With and Without Inhibitory Potency Against Carbonic Anhydrase II. Journal of Bone and Mineral Research, 2005, 21, 219-227.	2.8	21
134	Development and evaluation of tetrapod-shaped granular artificial bones. Acta Biomaterialia, 2012, 8, 2340-2347.	8.3	21
135	Antidiabetic effect of nepodin, a component of Rumex roots, and its modes of action <i>in vitro</i> and <i>in vivo</i> . BioFactors, 2014, 40, 436-447.	5 . 4	21
136	A Patient with Protein-Losing Enteropathy Associated with Systemic Lupus Erythematosus Internal Medicine, 1992, 31, 521-524.	0.7	20
137	Inhibition of Cdk6 expression through p38 MAP kinase is involved in differentiation of mouse prechondrocyte ATDC5. Journal of Cellular Physiology, 2005, 204, 927-933.	4.1	20
138	Correlation between Local and Global Inhomogeneities of Chemical Gels. Macromolecules, 2013, 46, 9772-9781.	4.8	20
139	Universal Equation of State Describes Osmotic Pressure throughout Gelation Process. Physical Review Letters, 2020, 125, 267801.	7.8	20
140	Mechanisms underlying catabolic and anabolic functions of parathyroid hormone on bone by combination of culture systems of mouse cells. Journal of Cellular Biochemistry, 2010, 109, 755-763.	2.6	19
141	Reply to: "Lack of HIF- $2\hat{l}\pm$ in limb bud mesenchyme causes a modest and transient delay of endochondral bone development" and "Replication studies in various ethnic populations do not support the association of the HIF- $2\hat{l}\pm$ SNP rs17039192 with knee osteoarthritis". Nature Medicine, 2011, 17, 27-29.	30.7	19
142	Regulation of Chondrocyte Survival in Mouse Articular Cartilage by p63. Arthritis and Rheumatology, 2017, 69, 598-609.	5.6	19
143	Cystatin 10, a Novel Chondrocyte-specific Protein, May Promote the Last Steps of the Chondrocyte Differentiation Pathway. Journal of Biological Chemistry, 2003, 278, 48259-48266.	3.4	18
144	Physiological role of bone morphogenetic proteins in osteogenesis. Journal of Bone and Mineral Metabolism, 2006, 24, 95-99.	2.7	17

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145	βâ€catenin regulates parathyroid hormone/parathyroid hormone–related protein receptor signals and chondrocyte hypertrophy through binding to the intracellular Câ€terminal region of the receptor. Arthritis and Rheumatism, 2013, 65, 429-435.	6.7	17
146	Migration Behavior of Rodlike dsDNA under Electric Field in Homogeneous Polymer Networks. Macromolecules, 2013, 46, 8657-8663.	4.8	17
147	Swelling Behaviors of Hydrogels with Alternating Neutral/Highly Charged Sequences. Macromolecules, 2020, 53, 8244-8254.	4.8	17
148	Local administration of a hedgehog agonist accelerates fracture healing in a mouse model. Biochemical and Biophysical Research Communications, 2016, 479, 772-778.	2.1	16
149	Hedgehog Activation Regulates Human Osteoblastogenesis. Stem Cell Reports, 2020, 15, 125-139.	4.8	16
150	Identification of oxytetracycline as a chondrogenic compound using a cell-based screening system. Journal of Bone and Mineral Metabolism, 2010, 28, 627-633.	2.7	15
151	Enhancement of bone formation ex vivo and in vivo by a helioxanthin-derivative. Biochemical and Biophysical Research Communications, 2010, 395, 502-508.	2.1	15
152	Heart Rate Modeling and Prediction Using Autoregressive Models and Deep Learning. Sensors, 2022, 22, 34.	3.8	15
153	Clinical application of artificial bone in the maxillofacial region. Journal of Artificial Organs, 2008, 11, 171-176.	0.9	14
154	Shrinking Kinetics of Polymer Gels with Alternating Hydrophilic/Thermoresponsive Prepolymer Units. Macromolecules, 2013, 46, 4114-4119.	4.8	14
155	Stepwise strategy for generating osteoblasts from human pluripotent stem cells under fully defined xeno-free conditions with small-molecule inducers. Regenerative Therapy, 2020, 14, 19-31.	3.0	14
156	Starâ€Polymer–DNA Gels Showing Highly Predictable and Tunable Mechanical Responses. Advanced Materials, 2022, 34, e2108818.	21.0	14
157	Nanog promotes osteogenic differentiation of the mouse mesenchymal cell line C3H10T1/2 by modulating bone morphogenetic protein (BMP) signaling. Journal of Cellular Physiology, 2013, 228, 163-171.	4.1	13
158	Implementation of tetra-poly(ethylene glycol) hydrogel with high mechanical strength into microfluidic device technology. Biomicrofluidics, 2013, 7, 054109.	2.4	13
159	Effect of Swelling and Deswelling on Mechanical Properties of Polymer Gels. Macromolecular Symposia, 2015, 358, 128-139.	0.7	13
160	Probing the cross-effect of strains in non-linear elasticity of nearly regular polymer networks by pure shear deformation. Journal of Chemical Physics, 2015, 142, 174908.	3.0	13
161	Targeting gene expression to specific cells of kidney tubules in vivo, using adenoviral promoter fragments. PLoS ONE, 2017, 12, e0168638.	2.5	13
162	eHealth Delivery of Educational Content Using Selected Visual Methods to Improve Health Literacy on Lifestyle-Related Diseases: Literature Review. JMIR MHealth and UHealth, 2020, 8, e18316.	3.7	13

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163	Runx1 and Runx2 inhibit fibrotic conversion of cellular niches for hematopoietic stem cells. Nature Communications, 2022, 13, 2654.	12.8	13
164	Nonâ€Osmotic Hydrogels: A Rational Strategy for Safely Degradable Hydrogels. Angewandte Chemie, 2016, 128, 9428-9432.	2.0	12
165	Clinical experience of full custom-made artificial bones for the maxillofacial region. Regenerative Therapy, 2016, 5, 72-78.	3.0	12
166	Bioactive factors for tissue regeneration: state of the art. Muscles, Ligaments and Tendons Journal, 2012, 2, 193-203.	0.3	12
167	Parathyroid hormone-related peptide and Indian hedgehog. Current Opinion in Nephrology and Hypertension, 2000, 9, 357-362.	2.0	11
168	Repair of rabbit segmental femoral defects by using a combination ofÂtetrapod-shaped calcium phosphate granules and basic fibroblast growth factor-binding ion complex gel. Biomaterials, 2013, 34, 9056-9062.	11.4	11
169	Effect of prepolymer architecture on the network structure formed by AB-type crosslink-coupling. Polymer Journal, 2014, 46, 14-20.	2.7	11
170	On-demand retrieval of cells three-dimensionally seeded in injectable thioester-based hydrogels. RSC Advances, 2021, 11, 23637-23643.	3.6	11
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