Michele Marcolongo

List of Publications by Year
in descending order

42 papers	1,462 citations	394421 19 h-index	345221 36 g-index
42 all docs	42 docs citations	42 times ranked	1552 citing authors

#	Article	IF	Citations
1	Functional compressive mechanics of a PVA/PVP nucleus pulposus replacement. Biomaterials, 2006, 27, 176-184.	11.4	163
2	Degradation of mechanical properties of UHMWPE acetabular liners following long-term implantation. Journal of Arthroplasty, 2003, 18, 68-78.	3.1	140
3	Novel associated hydrogels for nucleus pulposus replacement. Journal of Biomedical Materials Research - Part A, 2003, 67A, 1329-1337.	4.0	134
4	Friction and wear behavior of poly(vinyl alcohol)/poly(vinyl pyrrolidone) hydrogels for articular cartilage replacement. Journal of Biomedical Materials Research - Part A, 2007, 83A, 471-479.	4.0	90
5	Does annealing improve the interlayer adhesion and structural integrity of FFF 3D printed PEEK lumbar spinal cages?. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103455.	3.1	78
6	Bioactive glass fiber/polymeric composites bond to bone tissue. , 1998, 39, 161-170.		76
7	Structureâ€"property relationships for 3D-printed PEEK intervertebral lumbar cages produced using fused filament fabrication. Journal of Materials Research, 2018, 33, 2040-2051.	2.6	72
8	Synthesis and Characterization of an Injectable Hydrogel with Tunable Mechanical Properties for Soft Tissue Repair. Biomacromolecules, 2006, 7, 3223-3228.	5.4	60
9	The role of the nucleus pulposus in neutral zone human lumbar intervertebral disc mechanics. Journal of Biomechanics, 2008, 41, 2104-2111.	2.1	55
10	The effect of dehydration history on PVA/PVP hydrogels for nucleus pulposus replacement. Journal of Biomedical Materials Research Part B, 2004, 69B, 135-140.	3.1	51
11	Surface reaction layer formationin vitro on a bioactive glass fiber/polymeric composite. , 1997, 37, 440-448.		47
12	Synthesis and recovery characteristics of branched and grafted PNIPAAmâ€"PEG hydrogels for the development of an injectable load-bearing nucleus pulposus replacement. Acta Biomaterialia, 2010, 6, 1319-1328.	8.3	43
13	Effects of aging and degeneration on the human intervertebral disc during the diurnal cycle: A finite element study. Journal of Orthopaedic Research, 2012, 30, 122-128.	2.3	40
14	Effect of coupling agents on the local mechanical properties of bioactive dental composites by the nano-indentation technique. Dental Materials, 2005, 21, 656-664.	3.5	36
15	Hierarchically ordered polymer nanofiber shish kebabs as a bone scaffold material. Journal of Biomedical Materials Research - Part A, 2017, 105, 1786-1798.	4.0	33
16	Role of biomolecules on annulus fibrosus micromechanics: Effect of enzymatic digestion on elastic and failure properties. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 40, 75-84.	3.1	31
17	Nucleus Implant Parameters Significantly Change the Compressive Stiffness of the Human Lumbar Intervertebral Disc. Journal of Biomechanical Engineering, 2005, 127, 536-540.	1.3	29
18	The effect of protein-free versus protein-containing medium on the mechanical properties and uptake of ions of PVA/PVP hydrogels. Journal of Biomaterials Science, Polymer Edition, 2005, 16, 489-503.	3.5	29

#	Article	IF	Citations
19	Terminal-end functionalization of chondroitin sulfate for the synthesis of biomimetic proteoglycans. Carbohydrate Polymers, 2012, 90, 431-440.	10.2	27
20	New materials for hip and knee joint replacement: What's hip and what's in kneed?. Journal of Orthopaedic Research, 2020, 38, 1436-1444.	2.3	25
21	Aggrecan-like biomimetic proteoglycans (BPGs) composed of natural chondroitin sulfate bristles grafted onto a poly(acrylic acid) core for molecular engineering of the extracellular matrix. Acta Biomaterialia, 2018, 75, 93-104.	8.3	24
22	The effect of nucleus implant parameters on the compressive mechanics of the lumbar intervertebral disc: A finite element study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 90B, 596-607.	3.4	19
23	Fill of the Nucleus Cavity Affects Mechanical Stability in Compression, Bending, and Torsion of a Spine Segment, Which Has Undergone Nucleus Replacement. Spine, 2010, 35, 1128-1135.	2.0	18
24	Nucleus Implantation: The Biomechanics of Augmentation Versus Replacement With Varying Degrees of Nucleotomy. Journal of Biomechanical Engineering, 2014, 136, 051001.	1.3	17
25	<i>In situ</i> apatite forming injectable hydrogel. Journal of Biomedical Materials Research - Part A, 2007, 83A, 249-256.	4.0	16
26	Electrospun poly(Îµâ€caprolactone) nanofiber shish kebabs mimic mineralized bony surface features. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1141-1149.	3.4	15
27	A Review of Nanofiber Shish Kebabs and Their Potential in Creating Effective Biomimetic Bone Scaffolds. Regenerative Engineering and Translational Medicine, 2018, 4, 107-119.	2.9	13
28	The regulatory effects of proteoglycans on collagen fibrillogenesis and morphology investigated using biomimetic proteoglycans. Journal of Structural Biology, 2019, 206, 204-215.	2.8	13
29	Synthesis of macromolecular mimics of small leucine-rich proteoglycans with a poly(ethylene glycol) core and chondroitin sulphate bristles. Carbohydrate Polymers, 2017, 166, 338-347.	10.2	10
30	Biomimetic proteoglycans diffuse throughout articular cartilage and localize within the pericellular matrix. Journal of Biomedical Materials Research - Part A, 2019, 107, 1977-1987.	4.0	10
31	Biomimetic Mineralization of Hierarchical Nanofiber Shish-Kebabs in a Concentrated Apatite-Forming Solution. ACS Applied Bio Materials, 2021, 4, 571-580.	4.6	9
32	Size-dependent soft epitaxial crystallization in the formation of blend nanofiber shish kebabs. Polymer, 2020, 202, 122644.	3.8	8
33	The Science Behind Wear Testing for Great Toe Implants for Hallux Rigidus. Foot and Ankle Clinics, 2016, 21, 891-902.	1.3	6
34	A Cross University-Led COVID-19 Rapid-Response Effort: Design, Build, and Distribute Drexel AJFlex Face Shields. Annals of Biomedical Engineering, 2021, 49, 950-958.	2.5	6
35	Painful temporomandibular joint overloading induces structural remodeling in the pericellular matrix of that joint's chondrocytes. Journal of Orthopaedic Research, 2022, 40, 348-358.	2.3	5
36	Advances in Biomaterials for the Treatment of Intervertebral Disc Degeneration. Journal of Long-Term Effects of Medical Implants, 2012, 22, 73-84.	0.7	4

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37	Double and zero quantum filtered 2H NMR analysis of D2O in intervertebral disc tissue. Journal of Magnetic Resonance, 2015, 258, 6-11.	2.1	4
38	Flame time of a cigarette lighter to achieve temperature capable of inflicting a burn. Burns, 2017, 43, 1227-1232.	1.9	3
39	MC3T3 E1 cell response to mineralized nanofiber shish kebab structures. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 1601-1610.	3.4	2
40	The Science Behind Surgical Innovations of the Forefoot. Foot and Ankle Clinics, 2016, 21, 903-908.	1.3	1
41	Injection of a Novel Biomimetic Aggrecan for the Restoration of Intervertebral Disc Tissue Mechanics. , 2013, , .		0
42	Advances in Biomaterials for Clinical Orthopaedic Applications. , 2012, , 561-582.		0