Howard W T Matthew

List of Publications by Year
in descending order

40 papers	5,466 citations	279798 23 h-index	345221 36 g-index
40 all docs	40 docs citations	40 times ranked	6560 citing authors

#	Article	IF	Citations
1	Application of chitosan-based polysaccharide biomaterials in cartilage tissue engineering: a review. Biomaterials, 2000, 21, 2589-2598.	11.4	1,831
2	Porous chitosan scaffolds for tissue engineering. Biomaterials, 1999, 20, 1133-1142.	11.4	1,437
3	Evaluation of the biocompatibility of a chitosan scaffold in mice. Journal of Biomedical Materials Research Part B, 2002, 59, 585-590.	3.1	637
4	Improved tissue-engineered bone regeneration by endothelial cell mediated vascularization. Biomaterials, 2009, 30, 508-517.	11.4	213
5	Vascular cell responses to polysaccharide materials:. Biomaterials, 2000, 21, 2315-2322.	11.4	191
6	Biomaterials and Scaffolds in Reparative Medicine. Annals of the New York Academy of Sciences, 2002, 961, 96-105.	3.8	105
7	Improving the mechanical properties of chitosan-based heart valve scaffolds using chitosan fibers. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 5, 171-180.	3.1	94
8	Effects of Immobilized Glycosaminoglycans on the Proliferation and Differentiation of Mesenchymal Stem Cells. Tissue Engineering - Part A, 2009, 15, 3499-3512.	3.1	89
9	Promotion of osteogenesis in tissueâ€engineered bone by preâ€seeding endothelial progenitor cellsâ€derived endothelial cells. Journal of Orthopaedic Research, 2008, 26, 1147-1152.	2.3	84
10	Complex coacervate microcapsules for mammalian cell culture and artificial organ development. Biotechnology Progress, 1993, 9, 510-519.	2.6	79
11	Chitosan fibers with improved biological and mechanical properties for tissue engineering applications. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 20, 217-226.	3.1	74
12	A Glycosaminoglycan Based, Modular Tissue Scaffold System for Rapid Assembly of Perfusable, High Cell Density, Engineered Tissues. PLoS ONE, 2014, 9, e84287.	2.5	74
13	Application of porous glycosaminoglycanâ€based scaffolds for expansion of human cord blood stem cells in perfusion culture. Journal of Biomedical Materials Research - Part A, 2008, 86A, 98-107.	4.0	45
14	Maintenance of CD34 Expression During Proliferation of CD34+Cord Blood Cells on Glycosaminoglycan Surfaces. Stem Cells, 1999, 17, 295-305.	3.2	40
15	Video-Gait Analysis of Functional Recovery of Nerve Repaired with Chitosan Nerve Guides. Tissue Engineering, 2006, 12, 3189-3199.	4.6	40
16	Chitosan films with improved tensile strength and toughness from N-acetyl-cysteine mediated disulfide bonds. Carbohydrate Polymers, 2016, 139, 1-9.	10.2	40
17	Subchondral and epiphyseal bone remodeling following surgical transection and noninvasive rupture of the anterior cruciate ligament as models of post-traumatic osteoarthritis. Osteoarthritis and Cartilage, 2016, 24, 698-708.	1.3	38
18	Adsorbed layers of oriented fibronectin: A strategy to control cell-surface interactions. Journal of Biomedical Materials Research - Part A, 2005, 75A, 316-323.	4.0	37

#	Article	IF	Citations
19	Thymosin Î²4 and corneal wound healing: visions of the future. Annals of the New York Academy of Sciences, 2010, 1194, 190-198.	3.8	36
20	Enhanced Oxygen Delivery to Primary Hepatocytes within a Hollow Fiber Bioreactor Facilitated via Hemoglobin-Based Oxygen Carriers. Artificial Cells, Blood Substitutes, and Biotechnology, 2007, 35, 585-606.	0.9	33
21	Extracorporeal Plasma Perfusion of Cultured Hepatocytes: Effect of Intermittent Perfusion on Hepatocyte Function and Morphology. Journal of Surgical Research, 1996, 66, 57-63.	1.6	31
22	Biomechanical Characterization of a Model of Noninvasive, Traumatic Anterior Cruciate Ligament Injury in the Rat. Annals of Biomedical Engineering, 2015, 43, 2467-2476.	2.5	29
23	Investigation of metabolic objectives in cultured hepatocytes. Biotechnology and Bioengineering, 2007, 97, 622-637.	3.3	28
24	Performance of plasma-perfused, microencapsulated hepatocytes: Prospects for extracorporeal liver support. Journal of Pediatric Surgery, 1993, 28, 1423-1428.	1.6	25
25	Membrane thickness is an important variable in membrane scaffolds: Influence of chitosan membrane structure on the behavior of cells. Acta Biomaterialia, 2010, 6, 2126-2131.	8.3	22
26	Encapsulation of mesenchymal stem cells in glycosaminoglycansâ€chitosan polyelectrolyte microcapsules using electrospraying technique: Investigating capsule morphology and cell viability. Bioengineering and Translational Medicine, 2018, 3, 265-274.	7.1	21
27	Biomimetic Scaffolds for Skeletal Muscle Regeneration. Discoveries, 2019, 7, e90.	2.3	17
28	Branched chitosans: Effects of branching parameters on rheological and mechanical properties. Journal of Biomedical Materials Research - Part A, 2007, 82A, 201-212.	4.0	12
29	DFBA-LQR:Â An Optimal Control Approach to Flux Balance Analysis. Industrial & Engineering Chemistry Research, 2006, 45, 8554-8564.	3.7	11
30	Covalently immobilized glycosaminoglycans enhance megakaryocyte progenitor expansion and platelet release. Journal of Biomedical Materials Research - Part A, 2011, 96A, 682-692.	4.0	11
31	Metabolic Oscillations in Coâ€Cultures of Hepatocytes and Mesenchymal Stem Cells: Effects of Seeding Arrangement and Culture Mixing. Journal of Cellular Biochemistry, 2017, 118, 3003-3015.	2.6	11
32	Scalable MSC-derived bone tissue modules: In vitro assessment of differentiation, matrix deposition, and compressive load bearing. Acta Biomaterialia, 2019, 95, 395-407.	8.3	10
33	Branched chitosans II: Effects of branching on degradation, protein adsorption and cell growth properties. Acta Biomaterialia, 2009, 5, 1575-1581.	8.3	8
34	Morphological and growth responses of vascular smooth muscle and endothelial cells cultured on immobilized heparin and dextran sulfate surfaces. Journal of Biomedical Materials Research - Part A, 2017, 105, 1725-1735.	4.0	5
35	Optimizationâ€based metabolic control analysis. Biotechnology Progress, 2010, 26, 1567-1579.	2.6	3
36	Transport Analysis of Engineered Liver Tissue Fabricated Using a Capsule-Based, Modular Approach. Annals of Biomedical Engineering, 2019, 47, 1223-1236.	2.5	3

#	Article	IF	Citations
37	Microencapsulation Methods. , 2002, , 815-823.		2
38	Immobilized Glycosaminoglycans Reduce Thrombopoietin-Induced Apoptosis during In Vitro Expansion of Megakaryocyte Precursors from Cord Blood CD34+ Cells.. Blood, 2006, 108, 1127-1127.	1.4	0
39	Effect of immobilized glycosaminoglycans on megakaryocyte expansion, apoptosis and platelet release. FASEB Journal, 2008, 22, 522.6.	0.5	0
40	Direct oxygenation and perfusion enhance viability and function of hepatocyteâ€seeded scaffolds. FASEB Journal, 2008, 22, 465.5.	0.5	0