

# Amy J Wagoner Johnson

## List of Publications by Year in descending order

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Version: 2024-02-01

82  
papers

4,055  
citations

218592

26  
h-index

118793

62  
g-index

84  
all docs

84  
docs citations

84  
times ranked

5481  
citing authors

#	ARTICLE	IF	CITATIONS
1	Morphological switch is associated with increase in cell-cell contacts, ALP , and confluence above a minimum island area to perimeter ratio. <i>Journal of Biomedical Materials Research - Part A</i> , 2022, 110, 164-180.	2.1	1
2	Heterogeneous microstructural changes of the cervix influence cervical funneling. <i>Acta Biomaterialia</i> , 2022, 140, 434-445.	4.1	13
3	Composite Substrates Reveal Inorganic Material Cues for Coral Larval Settlement. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 3960-3971.	3.2	7
4	Simulated confluence on micropatterned substrates correlates responses regulating cellular differentiation. <i>Biotechnology and Bioengineering</i> , 2022, 119, 1641-1659.	1.7	5
5	An Improved Approach to Iterative Learning Control for Uncertain Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2021, 29, 546-555.	3.2	20
6	Transcriptomic profiling of fetal membranes of mice deficient in biglycan and decorin as a model of preterm birth. <i>Biology of Reproduction</i> , 2021, 104, 611-623.	1.2	3
7	An optomechanogram for assessment of the structural and mechanical properties of tissues. <i>Scientific Reports</i> , 2021, 11, 324.	1.6	10
8	Process monitoring and control strategies in extrusion-based bioprinting to fabricate spatially graded structures. <i>Bioprinting</i> , 2021, 21, e00126.	2.9	20
9	Bone Adaptation-Driven Design of Periodic Scaffolds. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2021, 143, .	1.7	8
10	An indentation-based approach to determine the elastic constants of soft anisotropic tissues. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 103, 103539.	1.5	18
11	Direct process feedback in extrusion-based 3D bioprinting. <i>Biofabrication</i> , 2020, 12, 015017.	3.7	30
12	A thermodynamic approach to surface modification of calcium phosphate implants by phosphate evaporation and condensation. <i>Journal of the European Ceramic Society</i> , 2020, 40, 6095-6106.	2.8	18
13	Quantitative Classification of 3D Collagen Fiber Organization From Volumetric Images. <i>IEEE Transactions on Medical Imaging</i> , 2020, 39, 4425-4435.	5.4	13
14	Cell seeding simulation on micropatterned islands shows cell density depends on area to perimeter ratio, not on island size or shape. <i>Acta Biomaterialia</i> , 2020, 107, 152-163.	4.1	7
15	1D and 2D error assessment and correction for extrusion-based bioprinting using process sensing and control strategies. <i>Biofabrication</i> , 2020, 12, 045023.	3.7	22
16	Skeletal Muscle Adaptations and Passive Muscle Stiffness in Cerebral Palsy: A Literature Review and Conceptual Model. <i>Journal of Applied Biomechanics</i> , 2019, 35, 68-79.	0.3	13
17	Mineralization in micropores of calcium phosphate scaffolds. <i>Acta Biomaterialia</i> , 2019, 83, 435-455.	4.1	91
18	Analysis of 3D Collagen Organization in Non-pregnant Rat Cervix Tissue. , 2019, , .		0

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19	Bone regeneration strategies: Engineered scaffolds, bioactive molecules and stem cells current stage and future perspectives. <i>Biomaterials</i> , 2018, 180, 143-162.	5.7	605
20	Mineral binding peptides with enhanced binding stability in serum. <i>Biomaterials Science</i> , 2017, 5, 663-668.	2.6	4
21	Multiscale Porosity Directs Bone Regeneration in Biphasic Calcium Phosphate Scaffolds. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2768-2778.	2.6	33
22	Microstructural control of modular peptide release from microporous biphasic calcium phosphate. <i>Materials Science and Engineering C</i> , 2017, 72, 268-277.	3.8	6
23	Primary and Secondary Consequences of Rotator Cuff Injury on Joint Stabilizing Tissues in the Shoulder. <i>Journal of Biomechanical Engineering</i> , 2017, 139, .	0.6	11
24	Easy-to-Use 3D Printer for Fabrication of Biological Scaffolds. , 2017, , .		0
25	Structural and Mechanical Properties of Cocoons of <i>Antherina suraka</i> (Saturniidae). <i>Tj ETQq1</i> 1 0.784314 rgBT /Overlock 10 Tf 50 2017, 17, 17.	0.6	3
26	Tendon-derived progenitor cells improve healing of collagenase-induced flexor tendinitis. <i>Journal of Orthopaedic Research</i> , 2016, 34, 2162-2171.	1.2	27
27	A multi-indent approach to detect the surface of soft materials during nanoindentation. <i>Journal of Materials Research</i> , 2016, 31, 2672-2685.	1.2	9
28	Micropore-induced capillarity enhances bone distribution in vivo in biphasic calcium phosphate scaffolds. <i>Acta Biomaterialia</i> , 2016, 44, 144-154.	4.1	80
29	Net shape fabrication of calcium phosphate scaffolds with multiple material domains. <i>Biofabrication</i> , 2016, 8, 015005.	3.7	16
30	Differences in Morphology and Traction Generation of Cell Lines Representing Different Stages of Osteogenesis. <i>Journal of Biomechanical Engineering</i> , 2015, 137, 124503.	0.6	13
31	Bumpless Transfer Filter for Exogenous Feedforward Signals. <i>IEEE Transactions on Control Systems Technology</i> , 2014, 22, 1581-1588.	3.2	19
32	Multimaterial polyacrylamide: fabrication with electrohydrodynamic jet printing, applications, and modeling. <i>Biofabrication</i> , 2014, 6, 035018.	3.7	12
33	Mechanical properties of various suture materials and placement patterns tested with surrogate in vitro model constructs simulating laryngeal advancement tie-forward procedures in horses. <i>American Journal of Veterinary Research</i> , 2014, 75, 500-506.	0.3	5
34	Characterizing and Patterning Polyacrylamide Substrates Functionalized with N-Hydroxysuccinimide. <i>Cellular and Molecular Bioengineering</i> , 2013, 6, 299-309.	1.0	19
35	A mechanism for effective cell-seeding in rigid, microporous substrates. <i>Acta Biomaterialia</i> , 2013, 9, 7977-7986.	4.1	60
36	Mechanical and structural changes of the rat cervix in late-stage pregnancy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 17, 66-75.	1.5	18

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37	System-Level Biomechanical Approach for the Evaluation of Term and Preterm Pregnancy Maintenance. Journal of Biomechanical Engineering, 2013, 135, 021009.	0.6	12
38	Application of Fourier transform second harmonic generation imaging to the rat cervix. Journal of Microscopy, 2013, 251, 77-83.	0.8	28
39	Quantification of Rat Cervical Microstructure using Fourier Transform-Second-Harmonic Generation Imaging. , 2013, , .		0
40	Hydroxyapatite Scaffold Porosity, Bone Regeneration, and Vascularization Using an Adapted CAM Assay. , 2012, , .		0
41	Near-Net Shape Structures Fabricated by Micro-Robotic Deposition Using Precision Extrusion Control. , 2012, , .		0
42	182: Characterization of tensile properties of the pregnant rat cervix. American Journal of Obstetrics and Gynecology, 2012, 206, S93-S94.	0.7	0
43	Automated segmentation of micro-CT images of bone formation in calcium phosphate scaffolds. Computerized Medical Imaging and Graphics, 2012, 36, 54-65.	3.5	17
44	Tensile Properties and Collagen Organization of the Rat Cervix. , 2012, , .		0
45	Cross-coupled iterative learning control of systems with dissimilar dynamics: design and implementation. International Journal of Control, 2011, 84, 1223-1233.	1.2	40
46	Basis Task Approach to Iterative Learning Control With Applications to Micro-Robotic Deposition. IEEE Transactions on Control Systems Technology, 2011, 19, 1138-1148.	3.2	94
47	Patterned Hydrogel Substrates for Cell Culture with Electrohydrodynamic Jet Printing. Macromolecular Bioscience, 2011, 11, 1164-1168.	2.1	74
48	Human endothelial colony forming cells undergo vasculogenesis within biphasic calcium phosphate bone tissue engineering constructs. Acta Biomaterialia, 2011, 7, 4222-4228.	4.1	27
49	A review of the mechanical behavior of CaP and CaP/polymer composites for applications in bone replacement and repair. Acta Biomaterialia, 2011, 7, 16-30.	4.1	534
50	Breast tumors induced by N-methyl-N-nitrosourea are damaging to bone strength, structure, and mineralization in the absence of metastasis in rats. Journal of Bone and Mineral Research, 2011, 26, 769-776.	3.1	16
51	Analysis of the roles of microporosity and BMP-2 on multiple measures of bone regeneration and healing in calcium phosphate scaffolds. Acta Biomaterialia, 2011, 7, 1760-1771.	4.1	95
52	The effect of keratoconus on the structural, mechanical, and optical properties of the cornea. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 223-236.	1.5	115
53	Bumpless transfer for a flexible adaptation of Iterative Learning Control. , 2011, , .		7
54	Design and Manufacture of Combinatorial Calcium Phosphate Bone Scaffolds. Journal of Biomechanical Engineering, 2011, 133, 101001.	0.6	15

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55	A Computational and Cellular Solids Approach to the Stiffness-Based Design of Bone Scaffolds. <i>Journal of Biomechanical Engineering</i> , 2011, 133, 091003.	0.6	24
56	Geometric microenvironment directs cell morphology on topographically patterned hydrogel substrates. <i>Acta Biomaterialia</i> , 2010, 6, 3514-3523.	4.1	42
57	A Modular, Hydroxyapatite-Binding Version of Vascular Endothelial Growth Factor. <i>Advanced Materials</i> , 2010, 22, 5494-5498.	11.1	54
58	Tissue Engineering: A Modular, Hydroxyapatite-Binding Version of Vascular Endothelial Growth Factor (Adv. Mater. 48/2010). <i>Advanced Materials</i> , 2010, 22, 5436-5436.	11.1	1
59	Multiscale osteointegration as a new paradigm for the design of calcium phosphate scaffolds for bone regeneration. <i>Biomaterials</i> , 2010, 31, 3552-3563.	5.7	190
60	The effect of BMP-2 on micro- and macroscale osteointegration of biphasic calcium phosphate scaffolds with multiscale porosity. <i>Acta Biomaterialia</i> , 2010, 6, 3283-3291.	4.1	103
61	Iterative Learning Control using a basis signal library. , 2009, , .		5
62	The curve integration method is comparable to manual segmentation for the analysis of bone/scaffold composites using micro-CT. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2009, 88B, 271-279.	1.6	4
63	Modular Peptide Growth Factors for Substrate-Mediated Stem Cell Differentiation. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6266-6269.	7.2	44
64	The effect of chitosan on the migration of neutrophil-like HL60 cells, mediated by IL-8. <i>Biomaterials</i> , 2009, 30, 436-444.	5.7	60
65	The influence of micropore size on the mechanical properties of bulk hydroxyapatite and hydroxyapatite scaffolds. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2009, 2, 560-570.	1.5	125
66	Impact of bone geometry on effective properties of bone scaffolds. <i>Acta Biomaterialia</i> , 2009, 5, 680-692.	4.1	25
67	Accelerated wound closure of pressure ulcers in aged mice by chitosan scaffolds with and without bFGF. <i>Acta Biomaterialia</i> , 2009, 5, 1926-1936.	4.1	136
68	Cross Coupled Iterative Learning Control of Dissimilar Dynamical Systems. , 2009, , .		2
69	Micro-robotic deposition guidelines by a design of experiments approach to maximize fabrication reliability for the bone scaffold application. <i>Acta Biomaterialia</i> , 2008, 4, 897-912.	4.1	32
70	Bone Geometry in Periodic Hydroxyapatite Scaffolds Has Little Influence on Effective Elastic Properties. , 2008, , .		0
71	Iterative Learning Control for robotic deposition using machine vision. , 2008, , .		19
72	Vasculogenic Potential of Porcine Endothelial Colony Forming Cells. , 2008, , .		0

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73	Evaluation of two workshops for graduate students on communicating research in engineering and science. Proceedings - Frontiers in Education Conference, FIE, 2007, , .	0.0	0
74	Micro-CT based quantification of non-mineralized tissue on cultured hydroxyapatite scaffolds. Journal of Biomedical Materials Research - Part A, 2007, 82A, 1012-1021.	2.1	18
75	The mechanical properties and osteoconductivity of hydroxyapatite bone scaffolds with multi-scale porosity. Biomaterials, 2007, 28, 45-54.	5.7	698
76	Imaging Therapeutic Proteins in Gelatin for Controlled Drug Release. Macromolecular Symposia, 2005, 227, 295-306.	0.4	2
77	Analysis of multistep transformations in single-crystal NiTi. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 919-928.	1.1	21
78	Strengthening Mechanisms in Ti-6Al-4V/TiC Composites. AIP Conference Proceedings, 2004, , .	0.3	1
79	Large reduction in critical stress in Co?Ni?Al upon repeated transformation. Scripta Materialia, 2004, 51, 979-985.	2.6	30
80	Measuring mechanical properties of fine-wire cross-sections used in medical devices. Journal of Biomedical Materials Research Part B, 2004, 70B, 106-113.	3.0	9
81	Deformation mechanisms in Ti-6Al-4V/TiC composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 1869-1877.	1.1	27
82	The influence of microstructure and strain rate on the compressive deformation behavior of Ti-6Al-4V. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 295-306.	1.1	70