

# Amir Manbachi

## List of Publications by Year in descending order

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Version: 2024-02-01

52  
papers

2,333  
citations

471509

17  
h-index

361022

35  
g-index

55  
all docs

55  
docs citations

55  
times ranked

4408  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanotechnology in Textiles. ACS Nano, 2016, 10, 3042-3068.	14.6	530
2	Microfabricated Biomaterials for Engineering 3D Tissues. Advanced Materials, 2012, 24, 1782-1804.	21.0	351
3	Microfluidics-Enabled Multimaterial Maskless Stereolithographic Bioprinting. Advanced Materials, 2018, 30, e1800242.	21.0	277
4	Bioprinted thrombosis-on-a-chip. Lab on A Chip, 2016, 16, 4097-4105.	6.0	183
5	Development and Application of Piezoelectric Materials for Ultrasound Generation and Detection. Ultrasound, 2011, 19, 187-196.	0.7	176
6	Surface acoustic waves induced micropatterning of cells in gelatin methacryloyl (GelMA) hydrogels. Biofabrication, 2017, 9, 015020.	7.1	126
7	Cardiovascular Organ-on-a-Chip Platforms for Drug Discovery and Development. Applied in Vitro Toxicology, 2016, 2, 82-96.	1.1	124
8	Guided pedicle screw insertion: techniques and training. Spine Journal, 2014, 14, 165-179.	1.3	83
9	Microcirculation within grooved substrates regulates cell positioning and cell docking inside microfluidic channels. Lab on A Chip, 2008, 8, 747.	6.0	79
10	High-throughput screening of cell responses to biomaterials. European Journal of Pharmaceutical Sciences, 2008, 35, 151-160.	4.0	66
11	On the shape of the common carotid artery with implications for blood velocity profiles. Physiological Measurement, 2011, 32, 1885-1897.	2.1	38
12	Sonolucent Cranial Implants: Cadaveric Study and Clinical Findings Supporting Diagnostic and Therapeutic Transcranial Ultrasound. Journal of Craniofacial Surgery, 2019, 30, 1456-1461.	0.7	32
13	A computational and experimental study inside microfluidic systems: the role of shear stress and flow recirculation in cell docking. Biomedical Microdevices, 2010, 12, 619-626.	2.8	31
14	Slow and fast ultrasonic wave detection improvement in human trabecular bones using Golay code modulation. Journal of the Acoustical Society of America, 2012, 132, EL222-EL228.	1.1	28
15	Transcranial Ultrasound Through a Sonolucent Cranial Implant Made of Polymethyl Methacrylate: Phantom Study Comparing Ultrasound, Computed Tomography, and Magnetic Resonance Imaging. Journal of Craniofacial Surgery, 2019, 30, e626-e629.	0.7	25
16	Three-dimensional assessment of robot-assisted pedicle screw placement accuracy and instrumentation reliability based on a preplanned trajectory. Journal of Neurosurgery: Spine, 2020, 33, 519-528.	1.7	25
17	On estimating the directionality distribution in pedicle trabecular bone from micro-CT images. Physiological Measurement, 2014, 35, 2415-2428.	2.1	23
18	Minimally invasive therapeutic ultrasound: Ultrasound-guided ultrasound ablation in neuro-oncology. Ultrasonics, 2020, 108, 106210.	3.9	16

#	ARTICLE	IF	CITATIONS
19	Ultrasound in Traumatic Spinal Cord Injury: A Wide-Open Field. <i>Neurosurgery</i> , 2021, 89, 372-382.	1.1	15
20	Virtual fluoroscopy for intraoperative C-arm positioning and radiation dose reduction. <i>Journal of Medical Imaging</i> , 2018, 5, 1.	1.5	14
21	Starting a Medical Technology Venture as a Young Academic Innovator or Student Entrepreneur. <i>Annals of Biomedical Engineering</i> , 2018, 46, 1-13.	2.5	13
22	Design and validation of an open-source library of dynamic reference frames for research and education in optical tracking. <i>Journal of Medical Imaging</i> , 2018, 5, 1.	1.5	11
23	A Gradient-generating Microfluidic Device for Cell Biology. <i>Journal of Visualized Experiments</i> , 2007, , 271.	0.3	10
24	Advances in monitoring for acute spinal cord injury: a narrative review of current literature. <i>Spine Journal</i> , 2022, 22, 1372-1387.	1.3	10
25	Ultrasound monitoring of microcirculation: An original study from the laboratory bench to the clinic. <i>Microcirculation</i> , 2022, 29, .	1.8	9
26	Social Non-profit Bioentrepreneurship: Current Status and Future Impact on Global Health. <i>Frontiers in Public Health</i> , 2021, 9, 541191.	2.7	6
27	The effect of renin-angiotensin system blockers on spinal cord dysfunction and imaging features of spinal cord compression in patients with symptomatic cervical spondylosis. <i>Spine Journal</i> , 2020, 20, 519-529.	1.3	5
28	Bioprinting: Microfluidics-Enabled Multimaterial Maskless Stereolithographic Bioprinting ( <i>Adv. Mater.</i> ) Tj ETQq0 0,0 rgBT /Overlock 10 21.6 4		
29	Clinical Translation of the LevelCheck Decision Support Algorithm for Target Localization in Spine Surgery. <i>Annals of Biomedical Engineering</i> , 2018, 46, 1548-1557.	2.5	3
30	A Microfluidic Device with Groove Patterns for Studying Cellular Behavior. <i>Journal of Visualized Experiments</i> , 2007, , 270.	0.3	2
31	Design and fabrication of a low-frequency (1-3 MHz) ultrasound transducer for accurate placement of screw implants in the spine. <i>Proceedings of SPIE</i> , 2014, , .	0.8	2
32	Towards Ultrasound-guided Spinal Fusion Surgery. <i>Springer Theses</i> , 2016, , .	0.1	2
33	12. Angiotensin-II type-1 receptor blockade decreased T2 signal intensity in spinal cord compression in symptomatic cervical spondylotic myelopathy. <i>Spine Journal</i> , 2019, 19, S6.	1.3	2
34	Epidural Oscillating Cardiac-Gated Intracranial Implant Modulates Cerebral Blood Flow. <i>Neurosurgery</i> , 2020, 87, 1299-1310.	1.1	2
35	The development of Smart Hospital Assistant: integrating artificial intelligence and a voice-user interface for improved surgical outcomes. , 2021, 11601, .		2
36	Minimally invasive intraventricular ultrasound: design and instrumentation towards a miniaturized ultrasound-guided focused ultrasound probe. , 2019, , .		2

#	ARTICLE	IF	CITATIONS
37	Curricular Advancement of Biomedical Engineering Undergraduate Design Projects Beyond 1 <sup>st</sup> Year: A Pilot Study. <i>Annals of Biomedical Engineering</i> , 2020, 48, 1137-1146.	2.5	1
38	Minimizing cotton retention in neurosurgical procedures: which imaging modality can help?. , 2020, 11317, .		1
39	A Miniature Laser Speckle Contrast Imager for Monitoring the Neuromodulatory Effect of Transcranial Ultrasound Stimulation. , 2021, 2021, .		1
40	The Design and Use of a Minimally-Invasive, Expandable Retractor for Deep-Seated Brain Lesions. , 2021, 2021, .		1
41	Design and Fabrication of a Focused Ultrasound Device for Minimallyinvasive Neurosurgery: Reporting a Second, Miniaturized and Mrcompatible Prototype with Steering Capabilities. , 2021, 2021, .		1
42	Flexible piezoelectric sensor for real-time image-guided colonoscopies: a solution to endoscopic looping challenges in clinic. , 2020, , .		1
43	Characterization of Common Carotid Artery Curvature and Its Impact on Velocity Profile Shape. , 2010, , .		0
44	Background Review. <i>Springer Theses</i> , 2016, , 11-33.	0.1	0
45	Reusable Core Needle Biopsy Device for Low-Resource Settings. <i>Journal of Global Oncology</i> , 2018, 4, 47s-47s.	0.5	0
46	90449 Can Ultrasound detect changes to spinal cord blood flow before and after injury?. <i>Journal of Clinical and Translational Science</i> , 2021, 5, 6-6.	0.6	0
47	Summary of Contributions, Limitations, and Future Directions. <i>Springer Theses</i> , 2016, , 85-91.	0.1	0
48	Single Element Transducers. <i>Springer Theses</i> , 2016, , 37-55.	0.1	0
49	Organization of Pedicle Trabeculae. <i>Springer Theses</i> , 2016, , 35-36.	0.1	0
50	Infrared image-guidance for intraoperative assessment of limb length discrepancy during total hip arthroplasty procedures. , 2020, , .		0
51	An Evaluation of Sensing Technologies to Measure Intraoperative Leg Length for Total Hip Arthroplasty. , 2020, 2020, .		0
52	In Reply: Ultrasound in Traumatic Spinal Cord Injury: A Wide-Open Field. <i>Neurosurgery</i> , 2021, Publish Ahead of Print, .	1.1	0