

Mahmut Selman Sakar

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

64

papers

3,247

citations

27

h-index

56

g-index

72

ext. papers

3,923

ext. citations

10.5

avg, IF

5.4

L-index

#	Paper	IF	Citations
64	Cell-mediated fibre recruitment drives extracellular matrix mechanosensing in engineered fibrillar microenvironments. <i>Nature Materials</i> , 2015 , 14, 1262-8	27	356
63	Soft micromachines with programmable motility and morphology. <i>Nature Communications</i> , 2016 , 7, 12263-74	17.4	356
62	Three-dimensionally printed biological machines powered by skeletal muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 10125-30	11.5	262
61	An integrated microrobotic platform for on-demand, targeted therapeutic interventions. <i>Advanced Materials</i> , 2014 , 26, 952-7	24	200
60	Formation and optogenetic control of engineered 3D skeletal muscle bioactuators. <i>Lab on A Chip</i> , 2012 , 12, 4976-85	7.2	198
59	Automated biomanipulation of single cells using magnetic microrobots. <i>International Journal of Robotics Research</i> , 2013 , 32, 346-359	5.7	160
58	3D Printed Microtransporters: Compound Micromachines for Spatiotemporally Controlled Delivery of Therapeutic Agents. <i>Advanced Materials</i> , 2015 , 27, 6644-50	24	148
57	Adaptive locomotion of artificial microswimmers. <i>Science Advances</i> , 2019 , 5, eaau1532	14.3	127
56	Single cell manipulation using ferromagnetic composite microtransporters. <i>Applied Physics Letters</i> , 2010 , 96, 043705	3.4	110
55	Electrokinetic and optical control of bacterial microrobots. <i>Journal of Micromechanics and Microengineering</i> , 2011 , 21, 035001	2	106
54	Shape-switching microrobots for medical applications: the influence of shape in drug delivery and locomotion. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 6803-11	9.5	97
53	Magnetically Driven Silver-Coated Nanocoils for Efficient Bacterial Contact Killing. <i>Advanced Functional Materials</i> , 2016 , 26, 1063-1069	15.6	96
52	Hybrid helical magnetic microrobots obtained by 3D template-assisted electrodeposition. <i>Small</i> , 2014 , 10, 1284-8	11	93
51	Magnetically driven Bi ₂ O ₃ /BiOCl-based hybrid microrobots for photocatalytic water remediation. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 23670-23676	13	82
50	Cellular forces and matrix assembly coordinate fibrous tissue repair. <i>Nature Communications</i> , 2016 , 7, 11036	17.4	74
49	Modeling, control and experimental characterization of microbiorobots. <i>International Journal of Robotics Research</i> , 2011 , 30, 647-658	5.7	63
48	. <i>Proceedings of the IEEE</i> , 2011 , 99, 1470-1481	14.3	56

47	Magnetolectric micromachines with wirelessly controlled navigation and functionality. <i>Materials Horizons</i> , 2016 , 3, 113-118	14.4	53
46	Stochastic Source Seeking by Mobile Robots. <i>IEEE Transactions on Automatic Control</i> , 2012 , 57, 2308-2324	4.9	50
45	BAF restricts cGAS on nuclear DNA to prevent innate immune activation. <i>Science</i> , 2020 , 369, 823-828	33.3	50
44	Formation of elongated fascicle-inspired 3D tissues consisting of high-density, aligned cells using sacrificial outer molding. <i>Lab on A Chip</i> , 2014 , 14, 1907-16	7.2	41
43	Necking and failure of constrained 3D microtissues induced by cellular tension. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 20923-8	11.5	38
42	Robotically controlled microprey to resolve initial attack modes preceding phagocytosis. <i>Science Robotics</i> , 2017 , 2,	18.6	37
41	Cooperative manipulation and transport of microobjects using multiple helical microcarriers. <i>RSC Advances</i> , 2014 , 4, 26771-26776	3.7	37
40	Generating mobile fluidic traps for selective three-dimensional transport of microobjects. <i>Applied Physics Letters</i> , 2014 , 105, 114102	3.4	35
39	Universal Soft Robotic Microgripper. <i>Small</i> , 2019 , 15, e1803870	11	33
38	Active biomaterials for mechanobiology. <i>Biomaterials</i> , 2021 , 267, 120497	15.6	28
37	Wireless manipulation of single cells using magnetic microtransporters 2011 ,		25
36	Real-time automated characterization of 3D morphology and mechanics of developing plant cells. <i>International Journal of Robotics Research</i> , 2015 , 34, 1136-1146	5.7	24
35	Optimization of Tail Geometry for the Propulsion of Soft Microrobots. <i>IEEE Robotics and Automation Letters</i> , 2017 , 2, 727-732	4.2	23
34	Addressable Acoustic Actuation of 3D Printed Soft Robotic Microsystems. <i>Advanced Science</i> , 2020 , 7, 2001120	13.6	21
33	Flow driven robotic navigation of microengineered endovascular probes. <i>Nature Communications</i> , 2020 , 11, 6356	17.4	20
32	Modular soft robotic microdevices for dexterous biomanipulation. <i>Lab on A Chip</i> , 2019 , 19, 778-788	7.2	16
31	Mechanical Characterization and Shape Optimization of Fascicle-Like 3D Skeletal Muscle Tissues Contracted with Electrical and Optical Stimuli. <i>Tissue Engineering - Part A</i> , 2015 , 21, 1848-58	3.9	16
30	Cancer-cell stiffening via cholesterol depletion enhances adoptive T-cell immunotherapy. <i>Nature Biomedical Engineering</i> , 2021 ,	19	14

29	Self-folding mobile microrobots for biomedical applications 2014 ,		9
28	Magnetic microrobots with addressable shape control 2016 ,		9
27	Remotely Controlled Colloidal Assembly of Soft Microrobotic Artificial Muscle. <i>Advanced Intelligent Systems</i> , 2020 , 2, 2000062	6	8
26	Surface and Bulk Stresses Drive Morphological Changes in Fibrous Microtissues. <i>Biophysical Journal</i> , 2019 , 117, 975-986	2.9	7
25	Nonholonomic source seeking in switching random fields 2010 ,		7
24	Self-folding hydrogel bilayer for enhanced drug loading, encapsulation, and transport. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2016 , 2016, 2103-2106	0.9	6
23	Compound micromachines powered by acoustic streaming 2019 ,		4
22	Three-dimensional, automated magnetic biomanipulation with subcellular resolution 2013 ,		4
21	On-Board Mechanical Control Systems for Untethered Microrobots. <i>Advanced Intelligent Systems</i> , 2000233		4
20	Engineered Extracellular Matrices with Integrated Wireless Microactuators to Study Mechanobiology. <i>Advanced Materials</i> , 2021 , 33, e2102641	24	4
19	The biocompatibility and anti-biofouling properties of magnetic core-multishell Fe@C NWs-AAO nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 13274-9	3.6	3
18	Immune evasion by designer microrobots. <i>Science Robotics</i> , 2020 , 5,	18.6	3
17	A model for cellular mechanotransduction and contractility at finite strain. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018 , 98, 1754-1770	1	3
16	Locomotion of Sensor-Integrated Soft Robotic Devices Inside Sub-Millimeter Arteries with Impaired Flow Conditions. <i>Advanced Intelligent Systems</i> , 2100247	6	3
15	Engineering Control over 3D Morphogenesis by Tissue Origami. <i>Developmental Cell</i> , 2018 , 44, 131-132	10.2	2
14	Lithography: Hybrid Helical Magnetic Microrobots Obtained by 3D Template-Assisted Electrodeposition (Small 7/2014). <i>Small</i> , 2014 , 10, 1234-1234	11	2
13	Targeted Delivery: An Integrated Microrobotic Platform for On-Demand, Targeted Therapeutic Interventions (Adv. Mater. 6/2014). <i>Advanced Materials</i> , 2014 , 26, 951-951	24	2
12	Non-contact, 3D magnetic biomanipulation for in vivo and in vitro applications 2012 ,		2

11	Long-term imaging of the ventral nerve cord in behaving adult <i>Drosophila</i>		2
10	Tissue Engineering with Mechanically Induced Solid-Fluid Transitions. <i>Advanced Materials</i> , 2021 , e2106149		2
9	Pulsatile Flow-Induced Fatigue-Resistant Photopolymerizable Hydrogels for the Treatment of Intracranial Aneurysms. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 619858	5.8	2
8	Magnetic microrobots for microbiology 2017 , 163-195		1
7	Biomanipulation: Universal Soft Robotic Microgripper (Small 4/2019). <i>Small</i> , 2019 , 15, 1970022	11	1
6	High-throughput analysis of the morphology and mechanics of tip growing cells using a microrobotic platform 2014 ,		1
5	Dynamics of entrapped microbubbles with multiple openings. <i>Physics of Fluids</i> , 2022 , 34, 012012	4.4	1
4	Investigating Tissue Mechanics Using Untethered Soft Robotic Microdevices. <i>Frontiers in Robotics and AI</i> , 2021 , 8, 649765	2.8	1
3	A model for 3D deformation and reconstruction of contractile microtissues. <i>Soft Matter</i> , 2021 , 17, 10198, 10209		1
2	A model for cellular mechanotransduction and contractility at finite strain. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018 , 98, 2047-2047		1
1	Flow Driven Robotic Navigation of Endovascular Microscopic Devices. <i>The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM</i> , 2021 , 2021.7, OS1-5		