

Ahmet Fatih Tabak

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,285
citations

687363

13
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839539

18
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55
all docs

55
docs citations

55
times ranked

1313
citing authors

#	ARTICLE	IF	CITATIONS
1	Mathematical modeling to the motion control of magnetic nano/microrobotic tools performing in bodily fluids, especially blood/plasma. , 2022, , 83-112.		0
2	Transducer Technologies for Biosensors and Their Wearable Applications. Biosensors, 2022, 12, 385.	4.7	38
3	Orbital Characterization Study for the Hydrodynamic Micro Tweezers: Simulated Performance with a Passive Particle. , 2021, , .		0
4	Orbital Characterization Study for the Hydrodynamic Micro Tweezers: Simulated Performance with an Active Particle. , 2021, , .		0
5	Numerical Investigations on the Hydrodynamic Interaction between an E. Coli Minicell and a Micro Tweezers. , 2021, , .		2
6	Simulated Bilateral Motion Control of a Magneto-Tactic Bacterium via an Open Kinematic Chain. , 2020, , .		4
7	Adaptive Motion Control of Modified E. Coli. , 2020, , .		2
8	Bilateral control simulations for a pair of magnetically-coupled robotic arm and bacterium for in vivo applications. Journal of Micro-Bio Robotics, 2020, 16, 199-214.	2.1	10
9	A Simulated Control Method for a Magnetically-Coupled Bacterium and Robotic Arm. , 2020, , .		2
10	Motion Control for Biohybrid Multiscale Robots. , 2020, , .		1
11	Initial Study Towards the Integrated Design of Bone Scaffolds Based on Cell Diffusion, Growth Factor Release and Tissue Regeneration. , 2020, , .		0
12	Elevation and Azimuth Rotational Actuation of an Untethered Millirobot by MRI Gradient Coils. IEEE Transactions on Robotics, 2019, 35, 1323-1337.	10.3	29
13	Temperature Gradients Drive Bulk Flow Within Microchannel Lined by Fluid-Fluid Interfaces. Small, 2019, 15, e1900472.	10.0	17
14	3D-Printed Microrobotic Transporters with Recapitulated Stem Cell Niche for Programmable and Active Cell Delivery. Advanced Functional Materials, 2019, 29, 1808992.	14.9	107
15	3D-Printed Biodegradable Microswimmer for Theranostic Cargo Delivery and Release. ACS Nano, 2019, 13, 3353-3362.	14.6	334
16	Hydrodynamic Impedance Correction for Reduced-Order Modeling of Spermatozoa-Like Soft Micro-Robots. Advanced Theory and Simulations, 2019, 2, 1800130.	2.8	4
17	Bioinspired and Biomimetic Micro-Robotics for Therapeutic Applications. , 2019, , 457-523.		5
18	Independent Actuation of Two-Tailed Microrobots. IEEE Robotics and Automation Letters, 2018, 3, 1703-1710.	5.1	43

#	ARTICLE	IF	CITATIONS
19	Swimming Back and Forth Using Planar Flagellar Propulsion at Low Reynolds Numbers. <i>Advanced Science</i> , 2018, 5, 1700461.	11.2	33
20	Soft erythrocyte-based bacterial microswimmers for cargo delivery. <i>Science Robotics</i> , 2018, 3, .	17.6	280
21	Mechanical Rubbing of Blood Clots Using Helical Robots Under Ultrasound Guidance. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 1112-1119.	5.1	66
22	Hydrodynamic Impedance of Bacteria and Bacteria-Inspired Micro-Swimmers: A New Strategy to Predict Power Consumption of Swimming Micro-Robots for Real-Time Applications. <i>Advanced Theory and Simulations</i> , 2018, 1, 1700013.	2.8	16
23	Manipulation of Non-Magnetic Microbeads Using Soft Microrobotic Sperm. , 2018, , .		1
24	Controllable switching between planar and helical flagellar swimming of a soft robotic sperm. <i>PLoS ONE</i> , 2018, 13, e0206456.	2.5	24
25	Rubbing Against Blood Clots Using Helical Robots: Modeling and In Vitro Experimental Validation. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 927-934.	5.1	59
26	Near-surface effects on the controlled motion of magnetotactic bacteria. , 2017, , .		10
27	Positioning of drug carriers using permanent magnet-based robotic system in three-dimensional space. , 2017, , .		4
28	Swimming in low reynolds numbers using planar and helical flagellar waves. , 2017, , .		4
29	Sperm-shaped magnetic microrobots: Fabrication using electrospinning, modeling, and characterization. , 2016, , .		18
30	Targeting of cell mockups using sperm-shaped microrobots in vitro. , 2016, , .		2
31	Magnetic propulsion of robotic sperms at low-Reynolds number. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	59
32	Computationally-validated surrogate models for optimal geometric design of bio-inspired swimming robots: Helical swimmers. <i>Computers and Fluids</i> , 2014, 99, 190-198.	2.5	14
33	Resistive force theory based modeling and simulation of surface contact for swimming helical micro robots with channel flow. , 2014, , .		4
34	Improved Kinematic Models for Two-Link Helical Micro/Nanoswimmers. <i>IEEE Transactions on Robotics</i> , 2014, 30, 14-25.	10.3	22
35	In-channel experiments on vertical swimming with bacteria-like robots. , 2013, , .		2
36	Experimental validation of a CFD-based resistive force coefficient set for rotating helical tails in cylindrical channels. , 2013, , .		3

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37	Experiments on in-channel swimming of an untethered biomimetic robot with different helical tails. , 2012, , .		6
38	Experiment-based kinematic validation of numeric modeling and simulated control of an untethered biomimetic microrobot in channel. , 2012, , .		9
39	Comparison on experimental and numerical results for helical swimmers inside channels. , 2011, , .		11
40	Comparison on experimental and numerical results for helical swimmers inside channels. , 2011, , .		0
41	Modeling and Simulations of the Motion of Bio-Inspired Micro Swimming Robots. , 2010, , .		0
42	Validated Reduced Order Models for Simulating Trajectories of Bio-Inspired Artificial Micro-Swimmers. , 2010, , .		5
43	Simulation-based analysis of flow due to traveling-plane-wave deformations on elastic thin-film actuators in micropumps. Microfluidics and Nanofluidics, 2008, 4, 489-500.	2.2	10
44	Simulation-Based Analysis of 3D Flow Inside a Micropump With Passive Valves. , 2007, , 849.		0
45	Numerical Analysis of a Planar Wave Propagation Based Micropropulsion System. , 2007, , 781.		0
46	Numerical simulations and analysis of a micropump actuated by traveling plane waves. , 2007, , .		4
47	Numerical Analysis of the 3D Flow Induced by Propagation of Plane-Wave Deformations on Thin Membranes Inside Microchannels. , 2007, , .		3
48	TemassÄ±z Manyetik Mikro ManipÄ±lasyon iÅin Bernoulli Denklemine DayalÄ± Robotik Model. European Journal of Science and Technology, 0, , .	0.5	2
49	Non-Contact Micromanipulation Of A Single E. Coli Minicell. European Journal of Science and Technology, 0, , .	0.5	2
50	Tek MÄ±knatÄ±s aracÄ±Ä± ile bir Manyetotaktik Bakterinin Adaptif Manevra KontrolÄ± iÅin BaÄ±msÄ±z Eklemler Kontrol SimulasyonlarÄ±. European Journal of Science and Technology, 0, , .	0.5	1
51	Simulation Studies for Motion Control of Multiple Biohybrid Microrobots in Human Synovial Fluid with Discontinuous Reference Signals. International Journal of Advances in Engineering and Pure Sciences, 0, , .	0.8	1