

Serhat Yesilyurt

List of Publications by Year in descending order

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papers

683
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623574

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all docs

73
docs citations

73
times ranked

567
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitrogen Front Evolution in Purged Polymer Electrolyte Membrane Fuel Cell with Dead-Ended Anode. Journal of the Electrochemical Society, 2010, 157, B1081.	1.3	75
2	The effect of the traveling magnetic field (TMF) on the buoyancy-induced convection in the vertical Bridgman growth of semiconductors. Journal of Crystal Growth, 2004, 263, 80-89.	0.7	49
3	A numerical investigation of the effect of thermoelectromagnetic convection (TEMC) on the Bridgman growth of Ge $_{1-x}$ Si $_x$. Journal of Crystal Growth, 1999, 207, 278-291.	0.7	45
4	Modeling and Experiments of Voltage Transients of Polymer Electrolyte Membrane Fuel Cells With the Dead-Ended Anode. Journal of Fuel Cell Science and Technology, 2012, 9, .	0.8	38
5	Surrogates for numerical simulations; optimization of eddy-promoter heat exchangers. Computer Methods in Applied Mechanics and Engineering, 1995, 121, 231-257.	3.4	36
6	Effects of Geometric Parameters on Swimming of Micro Organisms with Single Helical Flagellum in Circular Channels. Biophysical Journal, 2014, 106, 1537-1547.	0.2	33
7	Effects of wind gusts on a vertical axis wind turbine with high solidity. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 162, 1-11.	1.7	25
8	Transient Analysis of Proton Electrolyte Membrane Fuel Cells (PEMFC) at Start-Up and Failure. Fuel Cells, 2007, 7, 118-127.	1.5	24
9	Improved Kinematic Models for Two-Link Helical Micro/Nanoswimmers. IEEE Transactions on Robotics, 2014, 30, 14-25.	7.3	22
10	Modeling and performance analysis of branched microfluidic fuel cells with high utilization. Electrochimica Acta, 2019, 318, 169-180.	2.6	22
11	Impacts of inhomogeneous clamping force on local performance and liquid water formation in polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2017, 42, 19227-19245.	3.8	21
12	Magnetically actuated micro swimming of bio-inspired robots in mini channels. , 2011, , .		19
13	Simulation-based analysis of micro-robots swimming at the center and near the wall of circular mini-channels. Microfluidics and Nanofluidics, 2013, 14, 287-298.	1.0	18
14	A pseudo three-dimensional, two-phase, non-isothermal model of proton exchange membrane fuel cell. Electrochimica Acta, 2019, 302, 180-197.	2.6	17
15	Computationally-validated surrogate models for optimal geometric design of bio-inspired swimming robots: Helical swimmers. Computers and Fluids, 2014, 99, 190-198.	1.3	14
16	Characterization and Modeling of Biomimetic Untethered Robots Swimming in Viscous Fluids Inside Circular Channels. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1562-1573.	3.7	14
17	Confined swimming of bio-inspired microrobots in rectangular channels. Bioinspiration and Biomimetics, 2015, 10, 016015.	1.5	14
18	Effects of poiseuille flows on swimming of magnetic helical robots in circular channels. Microfluidics and Nanofluidics, 2015, 19, 1109-1122.	1.0	13

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19	Bayesian-Validated Surrogates for Noisy Computer Simulations; Application to Random Media. <i>SIAM Journal of Scientific Computing</i> , 1996, 17, 973-992.	1.3	12
20	Bayesian-validated computer-simulation surrogates for optimization and design: Error estimates and applications. <i>Mathematics and Computers in Simulation</i> , 1997, 44, 347-367.	2.4	12
21	Comparison on experimental and numerical results for helical swimmers inside channels. , 2011, , .		11
22	Experimental characterization of helical swimming trajectories in circular channels. <i>Microfluidics and Nanofluidics</i> , 2017, 21, 1.	1.0	11
23	Simulation-based analysis of flow due to traveling-plane-wave deformations on elastic thin-film actuators in micropumps. <i>Microfluidics and Nanofluidics</i> , 2008, 4, 489-500.	1.0	10
24	Trajectories of magnetically-actuated helical swimmers in cylindrical channels at low Reynolds numbers. <i>Journal of Fluids and Structures</i> , 2019, 90, 164-176.	1.5	10
25	Anode bleeding experiments to improve the performance and durability of proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 11047-11056.	3.8	10
26	Experiment-based kinematic validation of numeric modeling and simulated control of an untethered biomimetic microrobot in channel. , 2012, , .		9
27	Low Reynolds number swimming of helical structures in circular channels. <i>Journal of Fluids and Structures</i> , 2017, 74, 234-246.	1.5	7
28	Acoustic radiation forces on magnetically actuated helical swimmers. <i>Physics of Fluids</i> , 2020, 32, .	1.6	7
29	The influence of thermoelectromagnetic convection (TEMC) on the Bridgman growth of semiconductors. <i>Journal of Crystal Growth</i> , 2000, 211, 360-364.	0.7	6
30	Experiments on in-channel swimming of an untethered biomimetic robot with different helical tails. , 2012, , .		6
31	Numerical modeling of visco-elasto-plastic hygro-thermal stresses and the effects of operating conditions on the mechanical degradation of PEMFC membranes. <i>Journal of Power Sources</i> , 2018, 396, 164-174.	4.0	6
32	A transient Pseudo-3D model of the PEM fuel cell for the analysis of dead-ended anode and anode bleeding operation modes. <i>Electrochimica Acta</i> , 2019, 324, 134866.	2.6	6
33	Validated Reduced Order Models for Simulating Trajectories of Bio-Inspired Artificial Micro-Swimmers. , 2010, , .		5
34	Modeling and Simulations of PEMFCs Operating With Periodically Purged Dead-Ended Anode Channels. , 2010, , .		5
35	Navigation of mini swimmers in channel networks with magnetic fields. , 2013, , .		5
36	Numerical simulations and analysis of a micropump actuated by traveling plane waves. , 2007, , .		4

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37	Modeling and Simulations of Polymer Electrolyte Membrane Fuel Cells With Poroelastic Approach for Coupled Liquid Water Transport and Deformation in the Membrane. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	4
38	Swimming of onboard-powered autonomous robots in viscous fluid filled channels. , 2011, , .		4
39	Analysis of heat storage with a thermocline tank for concentrated solar plants: Application to AndaSol I. , 2015, , .		3
40	Numerical modeling of anode-bleeding PEM fuel cells: Effects of operating conditions and flow field design. International Journal of Hydrogen Energy, 2021, 46, 4378-4398.	3.8	3
41	Experimental validation of a CFD-based resistive force coefficient set for rotating helical tails in cylindrical channels. , 2013, , .		3
42	Numerical Analysis of the 3D Flow Induced by Propagation of Plane-Wave Deformations on Thin Membranes Inside Microchannels. , 2007, , .		3
43	Extracting Model Parameters and Paradigms From Neutron Imaging of Dead-Ended Anode Operation. , 2009, , .		3
44	A numerical and experimental investigation of rolling and sliding motion of rotating spheres inside a cylinder. Journal of Fluid Mechanics, 2022, 935, .	1.4	3
45	Three-Dimensional Simulations of Transient Response of PEM Fuel Cells. , 2007, , 597.		2
46	In-channel experiments on vertical swimming with bacteria-like robots. , 2013, , .		2
47	Model Predictive Control for Energy Maximization of Small Vertical Axis Wind Turbines. , 2015, , .		2
48	Hardware-in-the-loop simulations and control design for a small vertical axis wind turbine. , 2015, , .		2
49	Simulations of microflows induced by rotation of spirals in microchannels. , 2008, , .		1
50	Reduced Complexity Models for Water Management and Anode Purge Scheduling in DEA Operation of PEMFCs. ECS Transactions, 2010, 33, 1583-1596.	0.3	1
51	Modeling and Experiments of Voltage Transients of PEM Fuel Cells With the Dead-Ended Anode. , 2011, , .		1
52	Characterization and Modeling of Micro Swimmers With Helical Tails and Cylindrical Heads Inside Circular Channels. Journal of Fluids Engineering, Transactions of the ASME, 2014, 136, .	0.8	1
53	Design of Anode Flow Channels and Headers for a Large PEMFC Operating at Ultra-Low Stoichiometric Flow Conditions at the Anode Exit. , 2016, , .		1
54	Dynamics of Artificial Helical Microswimmers Under Confinement. , 2018, , .		1

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55	Steering Control of Magnetic Helical Swimmers in Swirling Flows due to Confinement. , 2020, , .		1
56	A Multi-resolution Mesh Representation for Deformable Objects in Collaborative Virtual Environments. Communications in Computer and Information Science, 2008, , 75-87.	0.4	1
57	Non-parametric-validated computer-simulation surrogates: a Pareto formulation. International Journal for Numerical Methods in Engineering, 1998, 42, 971-1003.	1.5	0
58	Electromagnetic control of convection in semiconductor melts: thermoelectromagnetic convection (TEMC) and rotating magnetic fields. , 1999, 3792, 124.		0
59	Optimal distribution of carbon nanotubes in gas sensor design. , 0, , .		0
60	Simulation-Based Analysis of 3D Flow Inside a Micropump With Passive Valves. , 2007, , 849.		0
61	Numerical Analysis of a Planar Wave Propagation Based Micropropulsion System. , 2007, , 781.		0
62	Modeling and Simulations of Deformation and Transport in PEM Fuel Cells. , 2008, , .		0
63	Simulation-Based Analysis of the Micropropulsion With Rotating Corkscrew Motion of Flagella. , 2009, , .		0
64	Characterization and Modeling of Micro Swimmers With Helical Tails and Cylindrical Heads Inside Circular Channels. , 2013, , .		0
65	Design and Modeling of High Temperature Water Free Proton Exchange Membranes in DEA PEMFC Operations. ECS Transactions, 2013, 58, 789-794.	0.3	0
66	Experimental validation of equilibria in fuel cells with dead-ended anodes. , 2013, , .		0
67	Modeling, Hardware-in-the-Loop Simulations and Control Design for Small-Scale Vertical Axis Wind Turbines. , 2016, , .		0
68	Comparisons of controller performance for small-scale vertical axis wind turbines. , 2017, , .		0
69	Rolling and Sliding of Spheres Inside Horizontal Channels. , 2018, , .		0
70	Modeling of Flow Distribution in Proton Exchange Membrane Fuel Cell. , 2018, , .		0
71	Simulation-Based Analysis of a Biologically-Inspired Micropump With a Rotating Spiral Inside a Microchannel. , 2008, , .		0
72	A Simple Numerical Tool for the Evaluation of Acoustic Radiation Force on Helices. , 2020, , .		0

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73	Comparison on experimental and numerical results for helical swimmers inside channels. , 2011, , .		0