Metin Sitti

List of Publications by Citations

358 papers	22,155 citations	78 h-index	138 g-index
382 ext. papers	27,177 ext. citations	10.3 avg, IF	7.89 L-index

#	Paper	IF	Citations
358	Stretchable, Skin-Mountable, and Wearable Strain Sensors and Their Potential Applications: A Review. *Advanced Functional Materials*, **2016**, 26, 1678-1698	15.6	1692
357	Evidence for van der Waals adhesion in gecko setae. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 12252-6	11.5	1371
356	Small-scale soft-bodied robot with multimodal locomotion. *Nature*, **2018**, 554, 81-85	50.4	898
355	Soft Actuators for Small-Scale Robotics. *Advanced Materials*, **2017**, 29, 1603483	24	678
354	Biomedical Applications of Untethered Mobile Milli/Microrobots. *Proceedings of the IEEE*, **2015**, 103, 205-224	14.3	456
353	Synthetic gecko foot-hair micro/nano-structures as dry adhesives. *Journal of Adhesion Science and Technology*, **2003**, 17, 1055-1073	2	412
352	Gecko-inspired directional and controllable adhesion. *Small*, **2009**, 5, 170-5	11	350
351	Shape-programmable magnetic soft matter. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E6007-E6015	11.5	284
350	Microstructured elastomeric surfaces with reversible adhesion and examples of their use in deterministic assembly by transfer printing. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 17095-100	11.5	280
349	Biologically inspired polymer microfibers with spatulate tips as repeatable fibrillar adhesives. *Applied Physics Letters*, **2006**, 89, 261911	3.4	278
348	Enhanced adhesion by gecko-inspired hierarchical fibrillar adhesives. *ACS Applied Materials & Interfaces*, **2009**, 1, 849-55	9.5	277
347	Bacterial flagella-based propulsion and on/off motion control of microscale objects. *Applied Physics Letters*, **2007**, 90, 023902	3.4	255
346	Design and Rolling Locomotion of a Magnetically Actuated Soft Capsule Endoscope. *IEEE Transactions on Robotics*, **2012**, 28, 183-194	6.5	244
345	Adhesion of biologically inspired vertical and angled polymer microfiber arrays. *Langmuir*, **2007**, 23, 3322-32	4	235
344	Modeling and Experimental Characterization of an Untethered Magnetic Micro-Robot. *International Journal of Robotics Research*, **2009**, 28, 1077-1094	5.7	234
343	Mobile microrobots for bioengineering applications. *Lab on A Chip*, **2017**, 17, 1705-1724	7.2	205
342	Parallel Microcracks-based Ultrasensitive and Highly Stretchable Strain Sensors. *ACS Applied Materials & Interfaces*, **2016**, 8, 5618-26	9.5	202

341	Biohybrid actuators for robotics: A review of devices actuated by living cells. *Science Robotics*, **2017**, 2,	18.6	202
340	3D-Printed Biodegradable Microswimmer for Theranostic Cargo Delivery and Release. *ACS Nano*, **2019**, 13, 3353-3362	16.7	187
339	Untethered micro-robotic coding of three-dimensional material composition. *Nature Communications*, **2014**, 5, 3124	17.4	185
338	Light-Triggered Drug Release from 3D-Printed Magnetic Chitosan Microswimmers. *ACS Nano*, **2018**, 12, 9617-9625	16.7	184
337	Multi-functional soft-bodied jellyfish-like swimming. *Nature Communications*, **2019**, 10, 2703	17.4	182
336	Bioengineered and biohybrid bacteria-based systems for drug delivery. *Advanced Drug Delivery Reviews*, **2016**, 106, 27-44	18.5	178
335	Three-Dimensional Programmable Assembly by Untethered Magnetic Robotic Micro-Grippers. *Advanced Functional Materials*, **2014**, 24, 4397-4404	15.6	175
334	Adhesion and anisotropic friction enhancements of angled heterogeneous micro-fiber arrays with spherical and spatula tips. *Journal of Adhesion Science and Technology*, **2007**, 21, 1281-1296	2	170
333	Waalbot: An Agile Small-Scale Wall-Climbing Robot Utilizing Dry Elastomer Adhesives. *IEEE/ASME Transactions on Mechatronics*, **2007**, 12, 330-338	5.5	168
332	Multifunctional Bacteria-Driven Microswimmers for Targeted Active Drug Delivery. *ACS Nano*, **2017**, 11, 8910-8923	16.7	167
331	Soft erythrocyte-based bacterial microswimmers for cargo delivery. *Science Robotics*, **2018**, 3,	18.6	165
330	Independent control of multiple magnetic microrobots in three dimensions. *International Journal of Robotics Research*, **2013**, 32, 614-631	5.7	162
329	Design Methodology for Biomimetic Propulsion of Miniature Swimming Robots. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2006**, 128, 36-43	1.6	151
328	Waalbot II: Adhesion Recovery and Improved Performance of a Climbing Robot using Fibrillar Adhesives. *International Journal of Robotics Research*, **2011**, 30, 118-133	5.7	148
327	Multifunctional ferrofluid-infused surfaces with reconfigurable multiscale topography. *Nature*, **2018**, 559, 77-82	50.4	146
326	Bioinspired Composite Microfibers for Skin Adhesion and Signal Amplification of Wearable Sensors. *Advanced Materials*, **2017**, 29, 1701353	24	144
325	High-Performance Multiresponsive Paper Actuators. *ACS Nano*, **2016**, 10, 10202-10210	16.7	142
324	Biopsy using a magnetic capsule endoscope carrying, releasing, and retrieving untethered microgrippers. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 513-21	5	142

323	Bio-hybrid cell-based actuators for microsystems. *Small*, **2014**, 10, 3831-51	11	136
322	Surface-Tension-Driven Biologically Inspired Water Strider Robots: Theory and Experiments **2007**, 23, 578-589		134
321	A legged anchoring mechanism for capsule endoscopes using micropatterned adhesives. *IEEE Transactions on Biomedical Engineering*, **2008**, 55, 2759-67	5	127
320	Continuously distributed magnetization profile for millimeter-scale elastomeric undulatory swimming. *Applied Physics Letters*, **2014**, 104, 174101	3.4	124
319	Two-Dimensional Contact and Noncontact Micromanipulation in Liquid Using an Untethered Mobile Magnetic Microrobot. *IEEE Transactions on Robotics*, **2009**, 25, 1332-1342	6.5	122
318	Control of Multiple Heterogeneous Magnetic Microrobots in Two Dimensions on Nonspecialized Surfaces. *IEEE Transactions on Robotics*, **2012**, 28, 172-182	6.5	121
317	Wearable and Stretchable Strain Sensors: Materials, Sensing Mechanisms, and Applications. *Advanced Intelligent Systems*, **2020**, 2, 2000039	6	120
316	Bioinspired underwater locomotion of light-driven liquid crystal gels. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 5125-5133	11.5	118
315	Multifunctional surface microrollers for targeted cargo delivery in physiological blood flow. *Science Robotics*, **2020**, 5,	18.6	116
314	Gecko-Inspired Controllable Adhesive Structures Applied to Micromanipulation. *Advanced Functional Materials*, **2012**, 22, 1246-1254	15.6	115
313	Soft grippers using micro-fibrillar adhesives for transfer printing. *Advanced Materials*, **2014**, 26, 4901-6	24	113
312	Effect of quantity and configuration of attached bacteria on bacterial propulsion of microbeads. *Applied Physics Letters*, **2008**, 93, 223901	3.4	113
311	Magnetotactic Bacteria Powered Biohybrids Target E. coli Biofilms. *ACS Nano*, **2017**, 11, 9968-9978	16.7	110
310	Wet self-cleaning of biologically inspired elastomer mushroom shaped microfibrillar adhesives. *Langmuir*, **2009**, 25, 7196-9	4	108
309	Microemulsion-Based Soft Bacteria-Driven Microswimmers for Active Cargo Delivery. *ACS Nano*, **2017**, 11, 9759-9769	16.7	107
308	Reversible dry micro-fibrillar adhesives with thermally controllable adhesion. *Soft Matter*, **2009**, 5, 3689	3.6	106
307	Recent Advances in Wearable Transdermal Delivery Systems. *Advanced Materials*, **2018**, 30, 1704530	24	105
306	Mobile Microrobots for Active Therapeutic Delivery. *Advanced Therapeutics*, **2019**, 2, 1800064	4.9	105

305	Biohybrid Microtube Swimmers Driven by Single Captured Bacteria. *Small*, **2017**, 13, 1603679	11	104
304	Controllable load sharing for soft adhesive interfaces on three-dimensional surfaces. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E4344-E4353	11.5	100
303	Magnetic steering control of multi-cellular bio-hybrid microswimmers. *Lab on A Chip*, **2014**, 14, 3850-9	7.2	100
302	Microscale and nanoscale robotics systems [Grand Challenges of Robotics]. *IEEE Robotics and Automation Magazine*, **2007**, 14, 53-60	3.4	100
301	Review of emerging concepts in nanotoxicology: opportunities and challenges for safer nanomaterial design. *Toxicology Mechanisms and Methods*, **2019**, 29, 378-387	3.6	100
300	Teleoperated touch feedback from the surfaces at the nanoscale: modeling and experiments. *IEEE/ASME Transactions on Mechatronics*, **2003**, 8, 287-298	5.5	97
299	Pros and Cons: Magnetic versus Optical Microrobots. *Advanced Materials*, **2020**, 32, e1906766	24	96
298	Self-Sensing Paper Actuators Based on Graphite-Carbon Nanotube Hybrid Films. *Advanced Science*, **2018**, 5, 1800239	13.6	96
297	Shape-Programmable Soft Capsule Robots for Semi-Implantable Drug Delivery. *IEEE Transactions on Robotics*, **2012**, 28, 1198-1202	6.5	95
296	Multiple magnetic microrobot control using electrostatic anchoring. *Applied Physics Letters*, **2009**, 94, 164108	3.4	92
295	Atomic force microscope probe based controlled pushing for nanotribological characterization. *IEEE/ASME Transactions on Mechatronics*, **2004**, 9, 343-349	5.5	89
294	Chemotactic steering of bacteria propelled microbeads. *Biomedical Microdevices*, **2012**, 14, 1009-17	3.7	87
293	Enhanced friction of elastomer microfiber adhesives with spatulate tips. *Applied Physics Letters*, **2007**, 91, 221913	3.4	86
292	Biosynthetic self-healing materials for soft machines. *Nature Materials*, **2020**, 19, 1230-1235	27	86
291	Microrobotics and Microorganisms: Biohybrid Autonomous Cellular Robots. *Annual Review of Control, Robotics, and Autonomous Systems*, **2019**, 2, 205-230	11.8	86
290	Microalga-Powered Microswimmers toward Active Cargo Delivery. *Advanced Materials*, **2018**, 30, e1804130	24	86
289	Elastomer surfaces with directionally dependent adhesion strength and their use in transfer printing with continuous roll-to-roll applications. *Advanced Materials*, **2012**, 24, 2117-22	24	85
288	Six-degree-of-freedom magnetic actuation for wireless microrobotics. *International Journal of Robotics Research*, **2016**, 35, 114-128	5.7	84

287	Acoustically powered surface-slipping mobile microrobots. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 3469-3477	11.5	83
286	Tank-Like Module-Based Climbing Robot Using Passive Compliant Joints. *IEEE/ASME Transactions on Mechatronics*, **2013**, 18, 397-408	5.5	82
285	Reprogrammable shape morphing of magnetic soft machines. *Science Advances*, **2020**, 6,	14.3	81
284	A 5-D Localization Method for a Magnetically Manipulated Untethered Robot using a 2-D Array of Hall-effect Sensors. *IEEE/ASME Transactions on Mechatronics*, **2016**, 21, 708-716	5.5	79
283	pH-Taxis of Biohybrid Microsystems. *Scientific Reports*, **2015**, 5, 11403	4.9	79
282	Three-dimensional heterogeneous assembly of coded microgels using an untethered mobile microgripper. *Lab on A Chip*, **2015**, 15, 1667-76	7.2	78
281	. *IEEE Transactions on Robotics*, **2012**, 28, 467-477	6.5	78
280	Targeted Drug Delivery and Imaging Using Mobile Milli/Microrobots: A Promising Future Towards Theranostic Pharmaceutical Design. *Current Pharmaceutical Design*, **2016**, 22, 1418-28	3.3	77
279	Dynamic trapping and two-dimensional transport of swimming microorganisms using a rotating magnetic microrobot. *Lab on A Chip*, **2014**, 14, 2177-82	7.2	76
278	Chemotaxis of bio-hybrid multiple bacteria-driven microswimmers. *Scientific Reports*, **2016**, 6, 32135	4.9	76
277	MultiMo-Bat: A biologically inspired integrated jumping–gliding robot. *International Journal of Robotics Research*, **2014**, 33, 1511-1529	5.7	75
276	Magnetically Actuated Soft Capsule With the Multimodal Drug Release Function. *IEEE/ASME Transactions on Mechatronics*, **2013**, 18, 1413-1418	5.5	73
275	Assembly and disassembly of magnetic mobile micro-robots towards deterministic 2-D reconfigurable micro-systems. *International Journal of Robotics Research*, **2011**, 30, 1667-1680	5.7	72
274	Gecko inspired micro-fibrillar adhesives for wall climbing robots on micro/nanoscale rough surfaces **2008**,		71
273	Translational prospects of untethered medical microrobots. *Progress in Biomedical Engineering*, **2019**, 1, 012002	7.2	70
272	Control methodologies for a heterogeneous group of untethered magnetic micro-robots. *International Journal of Robotics Research*, **2011**, 30, 1553-1565	5.7	70
271	Programmable Collective Behavior in Dynamically Self-Assembled Mobile Microrobotic Swarms. *Advanced Science*, **2019**, 6, 1801837	13.6	69
270	Piezoelectrically actuated four-bar mechanism with two flexible links for micromechanical flying insect thorax. *IEEE/ASME Transactions on Mechatronics*, **2003**, 8, 26-36	5.5	69

269	Inflated Soft Actuators with Reversible Stable Deformations. *Advanced Materials*, **2016**, 28, 3690-6	24	69
268	Shape-encoded dynamic assembly of mobile micromachines. *Nature Materials*, **2019**, 18, 1244-1251	27	68
267	3D-Printed Microrobotic Transporters with Recapitulated Stem Cell Niche for Programmable and Active Cell Delivery. *Advanced Functional Materials*, **2019**, 29, 1808992	15.6	66
266	Elucidating the interaction dynamics between microswimmer body and immune system for medical microrobots. *Science Robotics*, **2020**, 5,	18.6	66
265	Light-Driven Janus Hollow Mesoporous TiO2–Au Microswimmers. *Advanced Functional Materials*, **2018**, 28, 1704902	15.6	66
264	Staying sticky: contact self-cleaning of gecko-inspired adhesives. *Journal of the Royal Society Interface*, **2014**, 11, 20131205	4.1	65
263	Deep EndoVO: A recurrent convolutional neural network (RCNN) based visual odometry approach for endoscopic capsule robots. *Neurocomputing*, **2018**, 275, 1861-1870	5.4	63
262	Magnetically Actuated Soft Capsule Endoscope for Fine-Needle Biopsy. *Soft Robotics*, **2020**, 7, 10-21	9.2	62
261	3D Chemical Patterning of Micromaterials for Encoded Functionality. *Advanced Materials*, **2017**, 29, 1605072	24	61
260	Redox metals homeostasis in multiple sclerosis and amyotrophic lateral sclerosis: a review. *Cell Death and Disease*, **2018**, 9, 348	9.8	60
259	Monolithic shape-programmable dielectric liquid crystal elastomer actuators. *Science Advances*, **2019**, 5, eaay0855	14.3	60
258	Dynamic and programmable self-assembly of micro-rafts at the air-water interface. *Science Advances*, **2017**, 3, e1602522	14.3	59
257	In-air fast response and high speed jumping and rolling of a light-driven hydrogel actuator. *Nature Communications*, **2020**, 11, 3988	17.4	59
256	Rotating Magnetic Miniature Swimming Robots With Multiple Flexible Flagella. *IEEE Transactions on Robotics*, **2014**, 30, 3-13	6.5	58
255	3-D Localization Method for a Magnetically Actuated Soft Capsule Endoscope and Its Applications. *IEEE Transactions on Robotics*, **2013**, 29, 1139-1151	6.5	58
254	Design and Development of the Lifting and Propulsion Mechanism for a Biologically Inspired Water Runner Robot **2008**, 24, 698-709		58
253	Augmented reality user interface for an atomic force microscope-based nanorobotic system. *IEEE Nanotechnology Magazine*, **2006**, 5, 397-406	2.6	57
252	Rolling and Spinning Friction Characterization of Fine Particles Using Lateral Force Microscopy Based Contact Pushing. *Journal of Adhesion Science and Technology*, **2008**, 22, 481-506	2	56

251	Geckobot: a gecko inspired climbing robot using elastomer adhesives		55
250	Multifunctional magnetic hairbot for untethered osteogenesis, ultrasound contrast imaging and drug delivery. *Biomaterials*, **2019**, 219, 119394	15.6	53
249	Modeling the soft backing layer thickness effect on adhesion of elastic microfiber arrays. *Journal of Applied Physics*, **2008**, 104, 044301	2.5	53
248	Controlling two-dimensional collective formation and cooperative behavior of magnetic microrobot swarms. *International Journal of Robotics Research*, **2020**, 39, 617-638	5.7	52
247	. *IEEE Transactions on Robotics*, **2012**, 28, 987-990	6.5	52
246	Bioadhesive Bacterial Microswimmers for Targeted Drug Delivery in the Urinary and Gastrointestinal Tracts. *Advanced Science*, **2017**, 4, 1700058	13.6	51
245	Multifunctional magnetic soft composites: a review. *Multifunctional Materials*, **2020**, 3, 042003	5.2	51
244	Rubbing Against Blood Clots Using Helical Robots: Modeling and In Vitro Experimental Validation. *IEEE Robotics and Automation Letters*, **2017**, 2, 927-934	4.2	49
243	An untethered magnetically actuated micro-robot capable of motion on arbitrary surfaces **2008**,		49
242	Reconfigurable multifunctional ferrofluid droplet robots. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 27916-27926	11.5	49
241	Propulsion and Chemotaxis in Bacteria-Driven Microswimmers. *Advanced Science*, **2017**, 4, 1700109	13.6	48
240	Multifunctional and biodegradable self-propelled protein motors. *Nature Communications*, **2019**, 10, 3188	17.4	48
239	Micro-manipulation using rotational fluid flows induced by remote magnetic micro-manipulators. *Journal of Applied Physics*, **2012**, 112, 064912	2.5	47
238	Zwitterionic 3D-Printed Non-Immunogenic Stealth Microrobots. *Advanced Materials*, **2020**, 32, e2003013	24	47
237	Mechanical Rubbing of Blood Clots Using Helical Robots Under Ultrasound Guidance. *IEEE Robotics and Automation Letters*, **2018**, 3, 1112-1119	4.2	46
236	Phase Change of Gallium Enables Highly Reversible and Switchable Adhesion. *Advanced Materials*, **2016**, 28, 5088-92	24	46
235	Near and far-wall effects on the three-dimensional motion of bacteria-driven microbeads. *Applied Physics Letters*, **2013**, 102, 143701	3.4	46
234	Soft actuators for real-world applications.. *Nature Reviews Materials*, **2022**, 7, 235-249	73.3	45

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232	The optimal shape of elastomer mushroom-like fibers for high and robust adhesion. *Beilstein Journal of Nanotechnology*, **2014**, 5, 630-8	3	43
231	Bioinspired cilia arrays with programmable nonreciprocal motion and metachronal coordination. *Science Advances*, **2020**, 6,	14.3	40
230	Remotely addressable magnetic composite micropumps. *RSC Advances*, **2012**, 2, 3850	3.7	39
229	Design and manufacturing of a controllable miniature flapping wing robotic platform. *International Journal of Robotics Research*, **2012**, 31, 785-800	5.7	39
228	Biodegradable Untethered Magnetic Hydrogel Milli-Grippers. *Advanced Functional Materials*, **2020**, 30, 2004975	15.6	39
227	Self-Folded Hydrogel Tubes for Implantable Muscular Tissue Scaffolds. *Macromolecular Bioscience*, **2018**, 18, e1700377	5.5	38
226	Transfer Printing of Metallic Microstructures on Adhesion-Promoting Hydrogel Substrates. *Advanced Materials*, **2015**, 27, 3398-404	24	38
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224	A non-rigid map fusion-based direct SLAM method for endoscopic capsule robots. *International Journal of Intelligent Robotics and Applications*, **2017**, 1, 399-409	1.7	37
223	Proximal Probes Based Nanorobotic Drawing of Polymer Micro/Nanofibers. *IEEE Nanotechnology Magazine*, **2006**, 5, 499-510	2.6	37
222	Recent Advances in Skin Penetration Enhancers for Transdermal Gene and Drug Delivery. *Current Gene Therapy*, **2017**, 17, 139-146	4.3	37
221	Influence of magnetic fields on magneto-aerotaxis. *PLoS ONE*, **2014**, 9, e101150	3.7	36
220	3D Microstructures of Liquid Crystal Networks with Programmed Voxelated Director Fields. *Advanced Materials*, **2020**, 32, e2002753	24	36
219	Patterned and Specific Attachment of Bacteria on Biohybrid Bacteria-Driven Microswimmers. *Advanced Healthcare Materials*, **2016**, 5, 2325-31	10.1	35
218	Anisotropic Gold Nanostructures: Optimization via in Silico Modeling for Hyperthermia. *ACS Applied Nano Materials*, **2018**, 1, 6205-6216	5.6	35
217	Two-dimensional magnetic micro-module reconfigurations based on inter-modular interactions. *International Journal of Robotics Research*, **2013**, 32, 591-613	5.7	34
216	Modeling of stochastic motion of bacteria propelled spherical microbeads. *Journal of Applied Physics*, **2011**, 109, 114702	2.5	34

215	Visual Servoing-Based Autonomous 2-D Manipulation of Microparticles Using a Nanoprobe. *IEEE Transactions on Control Systems Technology*, **2007**, 15, 842-852	4.8	34
214	Programmable assembly of heterogeneous microparts by an untethered mobile capillary microgripper. *Lab on A Chip*, **2016**, 16, 4445-4457	7.2	34
213	Additive manufacturing of cellulose-based materials with continuous, multidirectional stiffness gradients. *Science Advances*, **2020**, 6, eaay0929	14.3	33
212	Cancer cells biomineralize ionic gold into nanoparticles-microplates via secreting defense proteins with specific gold-binding peptides. *Acta Biomaterialia*, **2018**, 71, 61-71	10.8	33
211	Magnetically actuated soft capsule endoscope for fine-needle aspiration biopsy **2017**,		33
210	Can DC Motors Directly Drive Flapping Wings at High Frequency and Large Wing Strokes?. *IEEE/ASME Transactions on Mechatronics*, **2014**, 19, 109-120	5.5	33
209	Automated 2-D Nanoparticle Manipulation Using Atomic Force Microscopy. *IEEE Nanotechnology Magazine*, **2011**, 10, 472-481	2.6	32
208	Dangling chain elastomers as repeatable fibrillar adhesives. *ACS Applied Materials & Interfaces*, **2009**, 1, 2277-87	9.5	32
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205	High-Yield Production of Biohybrid Microalgae for On-Demand Cargo Delivery. *Advanced Science*, **2020**, 7, 2001256	13.6	31
204	Cohesive self-organization of mobile microrobotic swarms. *Soft Matter*, **2020**, 16, 1996-2004	3.6	31
203	Liquid-Superrepellent Bioinspired Fibrillar Adhesives. *Advanced Materials*, **2020**, 32, e2000497	24	31
202	Adhesion of Biologically Inspired Oil-Coated Polymer Micropillars. *Journal of Adhesion Science and Technology*, **2008**, 22, 569-589	2	31
201	Liquid Crystal Elastomer-Based Magnetic Composite Films for Reconfigurable Shape-Morphing Soft Miniature Machines. *Advanced Materials*, **2021**, 33, e2006191	24	31
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199	Microribbons composed of directionally self-assembled nanoflakes as highly stretchable ionic neural electrodes. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 14667-14675	11.5	29
198	Segmented molecular design of self-healing proteinaceous materials. *Scientific Reports*, **2015**, 5, 13482	4.9	29

197	Teleoperated 3-D Force Feedback From the Nanoscale With an Atomic Force Microscope. *IEEE Nanotechnology Magazine*, **2010**, 9, 46-54	2.6	29
196	Waalbot: An Agile Small-Scale Wall Climbing Robot Utilizing Pressure Sensitive Adhesives **2006**,		29
195	The use of clamping grips and friction pads by tree frogs for climbing curved surfaces. *Proceedings of the Royal Society B: Biological Sciences*, **2017**, 284,	4.4	28
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192	Swimming characterization of Serratia marcescens for bio-hybrid micro-robotics. *Journal of Micro-Bio Robotics*, **2014**, 9, 47-60	1.4	27
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190	A Simultaneous Calibration Method for Magnetic Robot Localization and Actuation Systems. *IEEE Transactions on Robotics*, **2019**, 35, 343-352	6.5	27
189	The effect of temperature and humidity on adhesion of a gecko-inspired adhesive: implications for the natural system. *Scientific Reports*, **2016**, 6, 30936	4.9	26
188	Motility and chemotaxis of bacteria-driven microswimmers fabricated using antigen 43-mediated biotin display. *Scientific Reports*, **2018**, 8, 9801	4.9	26
187	Synthetic gecko foot-hair micro/nano-structures for future wall-climbing robots		26
186	Carbon nitride-based light-driven microswimmers with intrinsic photocharging ability. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 24748-24756	11.5	26
185	Wrinkling Instability and Adhesion of a Highly Bendable Gallium Oxide Nanofilm Encapsulating a Liquid-Gallium Droplet. *Nano Letters*, **2018**, 18, 2498-2504	11.5	25
184	Analysis of Magnetic Interaction in Remotely Controlled Magnetic Devices and its Application to a Capsule Robot for Drug Delivery. *IEEE/ASME Transactions on Mechatronics*, **2018**, 23, 298-310	5.5	25
183	Nonresonant powering of injectable nanoelectrodes enables wireless deep brain stimulation in freely moving mice. *Science Advances*, **2021**, 7,	14.3	25
182	Seed-mediated synthesis of plasmonic gold nanoribbons using cancer cells for hyperthermia applications. *Journal of Materials Chemistry B*, **2018**, 6, 7573-7581	7.3	25
181	Swimming Back and Forth Using Planar Flagellar Propulsion at Low Reynolds Numbers. *Advanced Science*, **2018**, 5, 1700461	13.6	24
180	Physical intelligence as a new paradigm. *Extreme Mechanics Letters*, **2021**, 46, 101340	3.9	24

179	3D-Printed Multi-Stimuli-Responsive Mobile Micromachines. *ACS Applied Materials & Interfaces*, **2021**, 13, 12759-12766	9.5	23
178	Enhanced fabrication and characterization of gecko-inspired mushroom-tipped microfiber adhesives. *Journal of Adhesion Science and Technology*, **2013**, 27, 1921-1932	2	22
177	STRIDE: A Highly Maneuverable and Non-Tethered Water Strider Robot. *Proceedings - IEEE International Conference on Robotics and Automation*, **2007**,		22
176	Magnetic Resonance Imaging System Driven Medical Robotics. *Advanced Intelligent Systems*, **2020**, 2, 1900110	6	22
175	Experimental Investigation of Optimal Adhesion of Mushroomlike Elastomer Microfibrillar Adhesives. *Langmuir*, **2015**, 31, 10119-24	4	21
174	Mechanical Coupling of Puller and Pusher Active Microswimmers Influences Motility. *Langmuir*, **2020**, 36, 5435-5443	4	21
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