Mariana Medina-SÃ¡nchez

List of Publications by Year
in descending order

66 papers	4,578 citations	109321 35 h-index	123424 61 g-index
70 all docs	70 docs citations	70 times ranked	4408 citing authors

#	Article	IF	Citations
1	Cellular Cargo Delivery: Toward Assisted Fertilization by Sperm-Carrying Micromotors. Nano Letters, 2016, 16, 555-561.	9.1	418
2	Sperm-Hybrid Micromotor for Targeted Drug Delivery. ACS Nano, 2018, 12, 327-337.	14.6	356
3	Medical microbots need better imaging and control. Nature, 2017, 545, 406-408.	27.8	227
4	Engineering microrobots for targeted cancer therapies from a medical perspective. Nature Communications, 2020, 11, 5618.	12.8	220
5	Medibots: Dualâ€Action Biogenic Microdaggers for Singleâ€Cell Surgery and Drug Release. Advanced Materials, 2016, 28, 832-837.	21.0	210
6	Sperm Micromotors for Cargo Delivery through Flowing Blood. ACS Nano, 2020, 14, 2982-2993.	14.6	181
7	Micro- and nano-motors: the new generation of drug carriers. Therapeutic Delivery, 2018, 9, 303-316.	2.2	165
8	Improving sensitivity of gold nanoparticle-based lateral flow assays by using wax-printed pillars as delay barriers of microfluidics. Lab on A Chip, 2014, 14, 4406-4414.	6.0	160
9	Swimming Microrobots: Soft, Reconfigurable, and Smart. Advanced Functional Materials, 2018, 28, 1707228.	14.9	154
10	Nanomaterials and lab-on-a-chip technologies. Lab on A Chip, 2012, 12, 1932.	6.0	142
11	Medical Imaging of Microrobots: Toward <i>In Vivo</i> Applications. ACS Nano, 2020, 14, 10865-10893.	14.6	141
12	IRONSperm: Sperm-templated soft magnetic microrobots. Science Advances, 2020, 6, eaba5855.	10.3	137
13	Spermatozoa as Functional Components of Robotic Microswimmers. Advanced Materials, 2017, 29, 1606301.	21.0	125
14	Simple paper architecture modifications lead to enhanced sensitivity in nanoparticle based lateral flow immunoassays. Lab on A Chip, 2013, 13, 386-390.	6.0	111
15	Micromotor Enhanced Microarray Technology for Protein Detection. Small, 2014, 10, 2542-2548.	10.0	105
16	Hybrid BioMicromotors. Applied Physics Reviews, 2017, 4, .	11.3	100
17	On-chip magneto-immunoassay for Alzheimer's biomarker electrochemical detection by using quantum dots as labels. Biosensors and Bioelectronics, 2014, 54, 279-284.	10.1	97
18	High-Performance Three-Dimensional Tubular Nanomembrane Sensor for DNA Detection. Nano Letters, 2016, 16, 4288-4296.	9.1	78

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19	Selfâ€Propelled Micro/Nanoparticle Motors. Particle and Particle Systems Characterization, 2018, 35, 1700382.	2.3	76
20	A flexible microsystem capable of controlled motion and actuation by wireless power transfer. Nature Electronics, 2020, 3, 172-180.	26.0	73
21	Spermâ€Driven Micromotors Moving in Oviduct Fluid and Viscoelastic Media. Small, 2020, 16, e2000213.	10.0	72
22	Microfluidic platform for environmental contaminants sensing and degradation based on boron-doped diamond electrodes. Biosensors and Bioelectronics, 2016, 75, 365-374.	10.1	71
23	Eco-friendly electrochemical lab-on-paper for heavy metal detection. Analytical and Bioanalytical Chemistry, 2015, 407, 8445-8449.	3.7	70
24	Real-Time Optoacoustic Tracking of Single Moving Micro-objects in Deep Phantom and Ex Vivo Tissues. Nano Letters, 2019, 19, 6612-6620.	9.1	64
25	An Inkjetâ€Printed Fieldâ€Effect Transistor for Labelâ€Free Biosensing. Advanced Functional Materials, 2014, 24, 6291-6302.	14.9	63
26	Magnetic Micromotors for Multiple Motile Sperm Cells Capture, Transport, and Enzymatic Release. Angewandte Chemie - International Edition, 2020, 59, 15029-15037.	13.8	62
27	Siliconâ€Based Integrated Labelâ€Free Optofluidic Biosensors: Latest Advances and Roadmap. Advanced Materials Technologies, 2020, 5, 1901138.	5.8	62
28	How to Improve Spermbot Performance. Advanced Functional Materials, 2015, 25, 2763-2770.	14.9	61
29	A Rotating Spiral Micromotor for Noninvasive Zygote Transfer. Advanced Science, 2020, 7, 2000843.	11.2	55
30	3D and 4D lithography of untethered microrobots. Progress in Materials Science, 2021, 120, 100808.	32.8	50
31	Blood platelet enrichment in mass-producible surface acoustic wave (SAW) driven microfluidic chips. Lab on A Chip, 2019, 19, 4043-4051.	6.0	41
32	Antithyroid drug detection using an enzyme cascade blocking in a nanoparticleâ€based labâ€onâ€aâ€chip system. Biosensors and Bioelectronics, 2015, 67, 670-676.	10.1	39
33	Dual Ultrasound and Photoacoustic Tracking of Magnetically Driven Micromotors: From In Vitro to In Vivo. Advanced Healthcare Materials, 2021, 10, e2101077.	7.6	39
34	Realâ€Time IR Tracking of Single Reflective Micromotors through Scattering Tissues. Advanced Functional Materials, 2019, 29, 1905272.	14.9	38
35	Three-Dimensional Microtubular Devices for Lab-on-a-Chip Sensing Applications. ACS Sensors, 2019, 4, 1476-1496.	7.8	38
36	Nano-biosupercapacitors enable autarkic sensor operation in blood. Nature Communications, 2021, 12, 4967.	12.8	37

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37	Graphene/Silicon Heterojunction Schottky Diode for Vapors Sensing Using Impedance Spectroscopy. Small, 2014, 10, 4193-4199.	10.0	33
38	Magnetofluidic platform for multidimensional magnetic and optical barcoding of droplets. Lab on A Chip, 2015, 15, 216-224.	6.0	32
39	Human spermbots for patient-representative 3D ovarian cancer cell treatment. Nanoscale, 2020, 12, 20467-20481.	5.6	31
40	On-chip electrochemical detection of CdS quantum dots using normal and multiple recycling flow through modes. Lab on A Chip, 2012, 12, 2000.	6.0	27
41	Water Activated Graphene Oxide Transfer Using Wax Printed Membranes for Fast Patterning of a Touch Sensitive Device. ACS Nano, 2016, 10, 853-860.	14.6	27
42	Enhanced detection of quantum dots labeled protein by simultaneous bismuth electrodeposition into microfluidic channel. Electrophoresis, 2016, 37, 432-437.	2.4	23
43	Impedimetric Microfluidic Sensorâ€inâ€aâ€Tube for Labelâ€Free Immune Cell Analysis. Small, 2021, 17, e2002549.	10.0	23
44	Sperm-hybrid micromotors: on-board assistance for natureâ€™s bustling swimmers. Reproduction, 2020, 159, R83-R96.	2.6	23
45	Shapeâ€Controlled Flexible Microelectronics Facilitated by Integrated Sensors and Conductive Polymer Actuators. Advanced Intelligent Systems, 2021, 3, 2000238.	6.1	22
46	Electronically integrated microcatheters based on self-assembling polymer films. Science Advances, 2021, 7, eabl5408.	10.3	22
47	Microsystems for Singleâ€Cell Analysis. Advanced Biology, 2018, 2, 1700193.	3.0	21
48	Switching Propulsion Mechanisms of Tubular Catalytic Micromotors. Small, 2021, 17, e2006449.	10.0	21
49	Paperâ€Based Electrodes for Nanoparticles Detection. Particle and Particle Systems Characterization, 2013, 30, 662-666.	2.3	18
50	Advanced Hybrid GaN/ZnO Nanoarchitectured Microtubes for Fluorescent Micromotors Driven by UV Light. Small, 2020, 16, 1905141.	10.0	18
51	Intuitive control of self-propelled microjets with haptic feedback. Journal of Micro-Bio Robotics, 2015, 10, 37-53.	2.1	16
52	Rapid on-chip apoptosis assay on human carcinoma cells based on annexin-V/quantum dot probes. Biosensors and Bioelectronics, 2017, 94, 408-414.	10.1	14
53	Autonomously propelled microscavengers for precious metal recovery. Chemical Communications, 2017, 53, 8140-8143.	4.1	12
54	Magnetic Micromotors for Multiple Motile Sperm Cells Capture, Transport, and Enzymatic Release. Angewandte Chemie, 2020, 132, 15139-15147.	2.0	11

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55	Modeling of Spermbots in a Viscous Colloidal Suspension. Advanced Theory and Simulations, 2019, 2, 1900072.	2.8	8
56	Self-sufficient self-oscillating microsystem driven by low power at low Reynolds numbers. Science Advances, 2021, 7, eabj0767.	10.3	8
57	Rapid 3D printing of complex polymeric tubular catalytic micromotors. , 2016, , .		7
58	Rolledâ€Up Metal Oxide Microscaffolds to Study Early Bone Formation at Single Cell Resolution. Small, 2021, 17, e2005527.	10.0	5
59	Micromotor-mediated sperm constrictions for improved swimming performance. European Physical Journal E, 2021, 44, 67.	1.6	4
60	Spermbots: Concept and Applications. Lecture Notes in Computer Science, 2017, , 579-588.	1.3	3
61	Optoacoustic detection of 3D microstructures in deep tissue-mimicking phantoms. , 2019, , .		2
62	Easily scalable high speed magnetic micropropellers. , 2016, , .		0
63	Microswimmers: Spermatozoa as Functional Components of Robotic Microswimmers (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	21.0	0
64	Spermbots: Magnetic microrobots that assist sperm cells on their journey, opening new routes to assisted reproduction. Reproduction Abstracts, 0, , .	0.0	0
65	Continuous monitoring of molecular biomarkers in microfluidic devices. Progress in Molecular Biology and Translational Science, 2022, 187, 295-333.	1.7	0
66	Tracking of Magnetic Micromotors in Confined Channels Through Scattering Tissue. , 2021, , .		0