Salvador Pane

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7251483/publications.pdf

Version: 2024-02-01

216 papers	9,705 citations	31976 53 h-index	46799 89 g-index
225 all docs	225 docs citations	225 times ranked	8437 citing authors

#	Article	IF	Citations
1	Soft micromachines with programmable motility and morphology. Nature Communications, 2016, 7, 12263.	12.8	495
2	Magnetically Driven Micro and Nanorobots. Chemical Reviews, 2021, 121, 4999-5041.	47.7	345
3	Recent developments in magnetically driven micro- and nanorobots. Applied Materials Today, 2017, 9, 37-48.	4.3	312
4	An Integrated Microrobotic Platform for Onâ€Demand, Targeted Therapeutic Interventions. Advanced Materials, 2014, 26, 952-957.	21.0	259
5	Piezoelectrically Enhanced Photocatalysis with BiFeO3 Nanostructures for Efficient Water Remediation. IScience, 2018, 4, 236-246.	4.1	232
6	3D Printed Enzymatically Biodegradable Soft Helical Microswimmers. Advanced Functional Materials, 2018, 28, 1804107.	14.9	222
7	Artificial Swimmers Propelled by Acoustically Activated Flagella. Nano Letters, 2016, 16, 4968-4974.	9.1	209
8	Undulatory Locomotion of Magnetic Multilink Nanoswimmers. Nano Letters, 2015, 15, 4829-4833.	9.1	202
9	Hybrid Magnetoelectric Nanowires for Nanorobotic Applications: Fabrication, Magnetoelectric Coupling, and Magnetically Assisted In Vitro Targeted Drug Delivery. Advanced Materials, 2017, 29, 1605458.	21.0	193
10	Biocompatibility characteristics of the metal organic framework ZIF-8 for therapeutical applications. Applied Materials Today, 2018, 11, 13-21.	4.3	193
11	Degradable Magnetic Composites for Minimally Invasive Interventions: Device Fabrication, Targeted Drug Delivery, and Cytotoxicity Tests. Advanced Materials, 2016, 28, 533-538.	21.0	190
12	Smallâ€Scale Machines Driven by External Power Sources. Advanced Materials, 2018, 30, e1705061.	21.0	186
13	Magnetic cilia carpets with programmable metachronal waves. Nature Communications, 2020, 11, 2637.	12.8	172
14	Mobility Experiments With Microrobots for Minimally Invasive Intraocular Surgery. , 2013, 54, 2853.		170
15	3Dâ€Printed Soft Magnetoelectric Microswimmers for Delivery and Differentiation of Neuronâ€Like Cells. Advanced Functional Materials, 2020, 30, 1910323.	14.9	157
16	Multiwavelength Light-Responsive Au/B-TiO₂ Janus Micromotors. ACS Nano, 2017, 11, 6146-6154.	14.6	155
17	Soft Micro- and Nanorobotics. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 53-75.	11.8	145
18	MOFBOTS: Metalâ€“Organicâ€Frameworkâ€Based Biomedical Microrobots. Advanced Materials, 2019, 31, e1901592.	21.0	139

#	Article	IF	Citations
19	Ultrasound-mediated piezoelectric differentiation of neuron-like PC12 cells on PVDF membranes. Scientific Reports, 2017, 7, 4028.	3.3	131
20	Hybrid Helical Magnetic Microrobots Obtained by 3D Templateâ€Assisted Electrodeposition. Small, 2014, 10, 1284-1288.	10.0	124
21	Shape-Switching Microrobots for Medical Applications: The Influence of Shape in Drug Delivery and Locomotion. ACS Applied Materials & Interfaces, 2015, 7, 6803-6811.	8.0	124
22	Self-assembled materials and supramolecular chemistry within microfluidic environments: from common thermodynamic states to non-equilibrium structures. Chemical Society Reviews, 2018, 47, 3788-3803.	38.1	119
23	Magnetically Driven Silverâ€Coated Nanocoils for Efficient Bacterial Contact Killing. Advanced Functional Materials, 2016, 26, 1063-1069.	14.9	118
24	Electrodeposition of Coâ€“Ni and Coâ€“Niâ€“Cu systems in sulphateâ€“citrate medium. Electrochimica Acta, 2005, 51, 146-153.	5.2	106
25	Piezoelectric Nanomaterials Activated by Ultrasound: The Pathway from Discovery to Future Clinical Adoption. ACS Nano, 2021, 15, 11066-11086.	14.6	102
26	Highly Efficient Coaxial TiO₂â€PtPd Tubular Nanomachines for Photocatalytic Water Purification with Multiple Locomotion Strategies. Advanced Functional Materials, 2016, 26, 6995-7002.	14.9	101
27	Magnetically driven Bi₂O₃/BiOCl-based hybrid microrobots for photocatalytic water remediation. Journal of Materials Chemistry A, 2015, 3, 23670-23676.	10.3	100
28	Chitosan Electrodeposition for Microrobotic Drug Delivery. Advanced Healthcare Materials, 2013, 2, 1037-1044.	7.6	99
29	Electroforming of Implantable Tubular Magnetic Microrobots for Wireless Ophthalmologic Applications. Advanced Healthcare Materials, 2015, 4, 209-214.	7.6	98
30	Surface-Chemistry-Mediated Control of Individual Magnetic Helical Microswimmers in a Swarm. ACS Nano, 2018, 12, 6210-6217.	14.6	97
31	Tissue Response to Neural Implants: The Use of Model Systems Toward New Design Solutions of Implantable Microelectrodes. Frontiers in Neuroscience, 2019, 13, 689.	2.8	96
32	Morphology, structure and magnetic properties of cobaltâ€“nickel films obtained from acidic electrolytes containing glycine. Electrochimica Acta, 2011, 56, 1399-1408.	5.2	93
33	Nanocrystalline Electroplated Cuâ€“Ni: Metallic Thin Films with Enhanced Mechanical Properties and Tunable Magnetic Behavior. Advanced Functional Materials, 2010, 20, 983-991.	14.9	92
34	Superparamagnetic Twistâ€Type Actuators with Shapeâ€Independent Magnetic Properties and Surface Functionalization for Advanced Biomedical Applications. Advanced Functional Materials, 2014, 24, 5269-5276.	14.9	92
35	Mobile Magnetic Nanocatalysts for Bioorthogonal Targeted Cancer Therapy. Advanced Functional Materials, 2018, 28, 1705920.	14.9	92
36	Magnetically driven piezoelectric soft microswimmers for neuron-like cell delivery and neuronal differentiation. Materials Horizons, 2019, 6, 1512-1516.	12.2	88

#	Article	IF	Citations
37	Imaging Technologies for Biomedical Microâ€•and Nanoswimmers. Advanced Materials Technologies, 2019, 4, 1800575.	5.8	83
38	3D Fabrication of Fully Iron Magnetic Microrobots. Small, 2019, 15, e1805006.	10.0	79
39	Magnetically guided capsule endoscopy. Medical Physics, 2017, 44, e91-e111.	3.0	78
40	Indirect 3D and 4D Printing of Soft Robotic Microstructures. Advanced Materials Technologies, 2019, 4, 1900332.	5.8	78
41	Metalâ€“Organic Frameworks in Motion. Chemical Reviews, 2020, 120, 11175-11193.	47.7	75
42	Magnetoelectrically Driven Catalytic Degradation of Organics. Advanced Materials, 2019, 31, e1901378.	21.0	74
43	Biomimetic Synthesis of Sub-20 nm Covalent Organic Frameworks in Water. Journal of the American Chemical Society, 2020, 142, 3540-3547.	13.7	68
44	Advanced technologies for the fabrication of MOF thin films. Materials Horizons, 2021, 8, 168-178.	12.2	68
45	4D printing and robotics. Science Robotics, 2018, 3, .	17.6	66
46	Motile Piezoelectric Nanoeels for Targeted Drug Delivery. Advanced Functional Materials, 2019, 29, 1808135.	14.9	66
47	Magnetoelectric micromachines with wirelessly controlled navigation and functionality. Materials Horizons, 2016, 3, 113-118.	12.2	64
48	Biodegradable Metalâ€“Organic Frameworkâ€Based Microrobots (MOFBOTs). Advanced Healthcare Materials, 2020, 9, e2001031.	7.6	64
49	Grain Boundary Segregation and Interdiffusion Effects in Nickelâ€“Copper Alloys: An Effective Means to Improve the Thermal Stability of Nanocrystalline Nickel. ACS Applied Materials & Interfaces, 2011, 3, 2265-2274.	8.0	63
50	Highâ€Resolution SPECT Imaging of Stimuliâ€Responsive Soft Microrobots. Small, 2019, 15, e1900709.	10.0	62
51	Acoustically Mediated Controlled Drug Release and Targeted Therapy with Degradable 3D Porous Magnetic Microrobots. Advanced Healthcare Materials, 2021, 10, e2001096.	7.6	59
52	A photopatternable superparamagnetic nanocomposite: Material characterization and fabrication of microstructures. Sensors and Actuators B: Chemical, 2011, 156, 433-443.	7.8	57
53	Catalytic Locomotion of Coreâ€“Shell Nanowire Motors. ACS Nano, 2016, 10, 9983-9991.	14.6	57
54	A comparison between fine-grained and nanocrystalline electrodeposited Cuâ€“Ni films. Insights on mechanical and corrosion performance. Surface and Coatings Technology, 2011, 205, 5285-5293.	4.8	56

#	Article	IF	Citations
55	A smart multifunctional drug delivery nanoplatform for targeting cancer cells. Nanoscale, 2016, 8, 12723-12728.	5.6	56
56	Microrobots: a new era in ocular drug delivery. Expert Opinion on Drug Delivery, 2014, 11, 1815-1826.	5.0	54
57	Multisegmented FeCo/Cu Nanowires: Electrosynthesis, Characterization, and Magnetic Control of Biomolecule Desorption. ACS Applied Materials & Interfaces, 2015, 7, 7389-7396.	8.0	54
58	A Needleâ€Type Microrobot for Targeted Drug Delivery by Affixing to a Microtissue. Advanced Healthcare Materials, 2020, 9, e1901697.	7.6	54
59	Polymer-Based Wireless Resonant Magnetic Microrobots. IEEE Transactions on Robotics, 2014, 30, 26-32.	10.3	52
60	Helical and Tubular Lipid Microstructures that are Electrolessâ€Coated with CoNiReP for Wireless Magnetic Manipulation. Small, 2012, 8, 1498-1502.	10.0	51
61	Robotically controlled microprey to resolve initial attack modes preceding phagocytosis. Science Robotics, 2017, 2, .	17.6	49
62	Magnetoelectric 3D scaffolds for enhanced bone cell proliferation. Applied Materials Today, 2019, 16, 290-300.	4.3	49
63	Enhanced Piezocatalytic Performance of BaTiO₃ Nanosheets with Highly Exposed {001} Facets. Advanced Functional Materials, 2022, 32, .	14.9	49
64	In Vitro Oxygen Sensing Using Intraocular Microrobots. IEEE Transactions on Biomedical Engineering, 2012, 59, 3104-3109.	4.2	48
65	Graphite Coating of Iron Nanowires for Nanorobotic Applications: Synthesis, Characterization and Magnetic Wireless Manipulation. Advanced Functional Materials, 2013, 23, 823-831.	14.9	48
66	Mechanically interlocked 3D multi-material micromachines. Nature Communications, 2020, 11, 5957.	12.8	48
67	On-the-fly catalytic degradation of organic pollutants using magneto-photoresponsive bacteria-templated microcleaners. Journal of Materials Chemistry A, 2019, 7, 24847-24856.	10.3	45
68	A Submillimeter Continuous Variable Stiffness Catheter for Compliance Control. Advanced Science, 2021, 8, e2101290.	11.2	45
69	Biodegradable Smallâ€Scale Swimmers for Biomedical Applications. Advanced Materials, 2021, 33, e2102049.	21.0	44
70	Thermoset Shape Memory Polymer Variable Stiffness 4D Robotic Catheters. Advanced Science, 2022, 9, e2103277.	11.2	42
71	Toward targeted retinal drug delivery with wireless magnetic microrobots. , 2008, , .		41
72	Voltageâ€Induced Coercivity Reduction in Nanoporous Alloy Films: A Boost toward Energyâ€Efficient Magnetic Actuation. Advanced Functional Materials, 2017, 27, 1701904.	14.9	41

#	Article	IF	Citations
73	Fabrication of Segmented Au/Co/Au Nanowires: Insights in the Quality of Co/Au Junctions. ACS Applied Materials & Interfaces, 2014, 6, 14583-14589.	8.0	40
74	Investigation of Magnetotaxis of Reconfigurable Microâ€Origami Swimmers with Competitive and Cooperative Anisotropy. Advanced Functional Materials, 2018, 28, 1802110.	14.9	40
75	Effects of the anion in glycine-containing electrolytes on the mechanical properties of electrodeposited Coâ€“Ni films. Materials Chemistry and Physics, 2011, 130, 1380-1386.	4.0	39
76	Enhanced catalytic degradation of organic pollutants by multi-stimuli activated multiferroic nanoarchitectures. Nano Research, 2020, 13, 2183-2191.	10.4	38
77	Hard-magnetic cell microscaffolds from electroless coated 3D printed architectures. Materials Horizons, 2018, 5, 699-707.	12.2	36
78	Hyperthermia with rotating magnetic nanowires inducing heat into tumor by fluid friction. Journal of Applied Physics, 2016, 120, .	2.5	35
79	3D hierarchically porous Cuâ€“BiOCl nanocomposite films: one-step electrochemical synthesis, structural characterization and nanomechanical and photoluminescent properties. Nanoscale, 2013, 5, 12542.	5.6	33
80	Influence of a cationic surfactant in the properties of cobaltâ€“nickel electrodeposits. Electrochimica Acta, 2006, 51, 5703-5709.	5.2	32
81	Protective coatings for intraocular wirelessly controlled microrobots for implantation: Corrosion, cell culture, and in vivo animal tests. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 836-845.	3.4	32
82	Real-time imaging and tracking of microrobots in tissues using ultrasound phase analysis. Applied Physics Letters, 2021, 118, .	3.3	32
83	Magnetic composites Coâ€“barium ferrite prepared by electrodeposition. Electrochemistry Communications, 2005, 7, 1225-1231.	4.7	29
84	Underpinning transport phenomena for the patterning of biomolecules. Chemical Society Reviews, 2019, 48, 1236-1254.	38.1	29
85	Dynamic Modeling of Magnetic Helical Microrobots. IEEE Robotics and Automation Letters, 2022, 7, 1682-1688.	5.1	29
86	A Biodegradable Magnetic Microrobot Based on Gelatin Methacrylate for Precise Delivery of Stem Cells with Mass Production Capability. Small, 2022, 18, .	10.0	29
87	Electroplated porous polypyrrole nanostructures patterned by colloidal lithography for drug-delivery applications. Nanoscale, 2012, 4, 3083.	5.6	28
88	Mineralizationâ€Inspired Synthesis of Magnetic Zeolitic Imidazole Framework Composites. Angewandte Chemie - International Edition, 2019, 58, 13550-13555.	13.8	27
89	CANDYBOTS: A New Generation of 3Dâ€Printed Sugarâ€Based Transient Smallâ€Scale Robots. Advanced Materials, 2020, 32, e2005652.	21.0	26
90	Porous polysulfone coatings for enhanced drug delivery. Biomedical Microdevices, 2012, 14, 603-612.	2.8	25

#	Article	IF	Citations
91	Magnetically navigable 3D printed multifunctional microdevices for environmental applications. Additive Manufacturing, 2019, 28, 127-135.	3.0	24
92	Manufacturing of a Hybrid Acoustic Transmitter Using an Advanced Microassembly System. IEEE Transactions on Industrial Electronics, 2009, 56, 2657-2666.	7.9	23
93	Tailoring Staircase-like Hysteresis Loops in Electrodeposited Trisegmented Magnetic Nanowires: a Strategy toward Minimization of Interwire Interactions. ACS Applied Materials & Interfaces, 2016, 8, 4109-4117.	8.0	23
94	Programmable Locomotion Mechanisms of Nanowires with Semihard Magnetic Properties Near a Surface Boundary. ACS Applied Materials & Interfaces, 2019, 11, 3214-3223.	8.0	23
95	Micelleâ€Assisted Electrodeposition of Mesoporous Feâ€“Pt Smooth Thin Films and their Electrocatalytic Activity towards the Hydrogen Evolution Reaction. ChemSusChem, 2018, 11, 367-375.	6.8	22
96	The effect of saccharine on the localized electrochemical deposition of Cu-rich Cuâ€“Ni microcolumns. Electrochemistry Communications, 2011, 13, 973-976.	4.7	21
97	Biotemplating of Metalâ€“Organic Framework Nanocrystals for Applications in Smallâ€Scale Robotics. Advanced Functional Materials, 2022, 32, .	14.9	21
98	Electrodeposition of cobaltâ€“yttrium hydroxide/oxide nanocomposite films from particle-free aqueous baths containing chloride salts. Electrochimica Acta, 2011, 56, 5142-5150.	5.2	20
99	Magnetically powered microrobots: a medical revolution underway?. European Journal of Cardio-thoracic Surgery, 2017, 51, ezw432.	1.4	20
100	An Electromagnetically Controllable Microrobotic Interventional System for Targeted, Realâ€Time Cardiovascular Intervention. Advanced Healthcare Materials, 2022, 11, e2102529.	7.6	20
101	Structural and magnetic characterization of batch-fabricated nickel encapsulated multi-walled carbon nanotubes. Nanotechnology, 2011, 22, 275713.	2.6	19
102	Templateâ€Assisted Electroforming of Fully Semiâ€Hardâ€Magnetic Helical Microactuators. Advanced Engineering Materials, 2018, 20, 1800179.	3.5	19
103	Effect of Surface Modifications of Ti40Zr10Cu38Pd12 Bulk Metallic Glass and Ti-6Al-4V Alloy on Human Osteoblasts In Vitro Biocompatibility. PLoS ONE, 2016, 11, e0156644.	2.5	19
104	Swimming characteristics of helical microrobots in fibrous environments. , 2016, , .		18
105	Magnetoelectric Effect in Hydrogen Harvesting: Magnetic Field as a Trigger of Catalytic Reactions. Advanced Materials, 2022, 34, e2110612.	21.0	18
106	Enhanced magnetism in electrodeposited-based CoNi composites containing high percentage of micron hard-magnetic particles. Electrochemistry Communications, 2007, 9, 1755-1760.	4.7	17
107	SERS Barcode Libraries: A Microfluidic Approach. Advanced Science, 2020, 7, 1903172.	11.2	17
108	Magnetoresistive granular Cuâ€“Coâ€“Ni coatings prepared by electrodeposition. Journal of Electroanalytical Chemistry, 2006, 596, 87-94.	3.8	16

#	Article	IF	Citations
109	Redox Cycling for Passive Modification of Polypyrrole Surface Properties: Effects on Cell Adhesion and Proliferation. Advanced Healthcare Materials, 2013, 2, 591-598.	7.6	16
110	Inkjet printed superparamagnetic polymer composite hemispheres with programmed magnetic anisotropy. Nanoscale, 2014, 6, 10495-10499.	5.6	16
111	Electrodeposition of sizeable and compositionally tunable rhodium-iron nanoparticles and their activity toward hydrogen evolution reaction. Electrochimica Acta, 2016, 194, 263-275.	5.2	16
112	Electrochemically synthesized amorphous and crystalline nanowires: dissimilar nanomechanical behavior in comparison with homologous flat films. Nanoscale, 2016, 8, 1344-1351.	5.6	16
113	High precision, localized proton gradients and fluxes generated by a microelectrode device induce differential growth behaviors of pollen tubes. Lab on A Chip, 2017, 17, 671-680.	6.0	16
114	Chiral anisotropic magnetoresistance of ferromagnetic helices. Applied Physics Letters, 2018, 112, .	3.3	16
115	3D Printing of Thermoplasticâ€Bonded Softâ€and Hardâ€Magnetic Composites: Magnetically Tuneable Architectures and Functional Devices. Advanced Intelligent Systems, 2019, 1, 1900069.	6.1	16
116	Helical Klinotactic Locomotion of Twoâ€Link Nanoswimmers with Dualâ€Function Drugâ€Loaded Soft Polysaccharide Hinges. Advanced Science, 2021, 8, 2004458.	11.2	16
117	Chirality transfer from a 3D macro shape to the molecular level by controlling asymmetric secondary flows. Nature Communications, 2022, 13, 1766.	12.8	16
118	Electrodeposition of copperâ€“magnetite magnetic composite films. Journal of Applied Electrochemistry, 2007, 37, 575-582.	2.9	15
119	Self-folding mobile microrobots for biomedical applications. , 2014, , .		15
120	Real-Time Holographic Tracking and Control of Microrobots. IEEE Robotics and Automation Letters, 2017, 2, 143-148.	5.1	15
121	Modulation of the magnetic properties of CoNi coatings by electrodeposition in the presence of a redox cationic surfactant. Applied Surface Science, 2006, 253, 2964-2968.	6.1	14
122	Influence of a magnetic field during the CoNi electrodeposition in the presence of magnetic nanoparticles. Journal of Electroanalytical Chemistry, 2008, 615, 117-123.	3.8	14
123	A magnetic force sensor on a catheter tip for minimally invasive surgery. , 2015, 2015, 7970-3.		14
124	3D integration of pH-cleavable drug-hydrogel conjugates on magnetically driven smart microtransporters. Materials and Design, 2021, 197, 109212.	7.0	14
125	In flow-based technologies: A new paradigm for the synthesis and processing of covalent-organic frameworks. Chemical Engineering Journal, 2022, 435, 135117.	12.7	14
126	Electroforming of Magnetic Microtubes for Microrobotic Applications. IEEE Transactions on Magnetics, 2014, 50, 1-3.	2.1	13

#	Article	IF	Citations
127	Electrophoretic deposition as a new approach to produce optical sensing films adaptable to microdevices. Nanoscale, 2014, 6, 263-271.	5.6	13
128	Magnetometry of Individual Polycrystalline Ferromagnetic Nanowires. Small, 2016, 12, 6363-6369.	10.0	13
129	Magnetostriction in electroplated CoFe alloys. Electrochemistry Communications, 2017, 76, 15-19.	4.7	13
130	Spatiotemporally controlled electrodeposition of magnetically driven micromachines based on the inverse opal architecture. Electrochemistry Communications, 2017, 81, 97-101.	4.7	13
131	An Intelligent In-Shoe System for Gait Monitoring and Analysis with Optimized Sampling and Real-Time Visualization Capabilities. Sensors, 2021, 21, 2869.	3.8	13
132	Recent Progress in Magnetically Actuated Microrobotics for Ophthalmic Therapies. European Ophthalmic Review, 2014, 08, 120.	0.3	13
133	First stages of barium ferrite microparticles entrapment in the electrodeposition of CoNi films. Journal of Electroanalytical Chemistry, 2007, 604, 41-47.	3.8	12
134	MRI magnetic signature imaging, tracking and navigation for targeted micro/nano-capsule therapeutics. , 2011, , .		12
135	Polymer-based Wireless Resonant Magnetic microrobots. , 2012, , .		12
136	When nothing is constant but change: Adaptive and sensorial materials and their impact on product design. Journal of Intelligent Material Systems and Structures, 2013, 24, 2172-2182.	2.5	12
137	Microfluidicâ€Assisted Blade Coating of Compositional Libraries for Combinatorial Applications: The Case of Organic Photovoltaics. Advanced Energy Materials, 2020, 10, 2001308.	19.5	12
138	Strain gradient mediated magnetoelectricity in Fe-Ga/P(VDF-TrFE) multiferroic bilayers integrated on silicon. Applied Materials Today, 2020, 19, 100579.	4.3	12
139	Magnetic propulsion of colloidal microrollers controlled by electrically modulated friction. Soft Matter, 2021, 17, 1037-1047.	2.7	12
140	A wireless acoustic emitter for passive localization in liquids. , 2009, , .		11
141	Ordered arrays of ferromagnetic, compositionally graded Cu1â^'xNix alloy nanopillars prepared by template-assisted electrodeposition. Journal of Materials Chemistry C, 2013, 1, 7215.	5.5	11
142	One-pot electrosynthesis of multi-layered magnetic metallopolymer nanocomposites. Nanoscale, 2014, 6, 4683.	5.6	11
143	Magnetic microrobots with addressable shape control. , 2016, , .		11
144	Inâ€Flow MOF Lithography. Advanced Materials Technologies, 2019, 4, 1800666.	5.8	10

#	Article	IF	Citations
145	Synthesis of 2D Porous Crystalline Materials in Simulated Microgravity. Advanced Materials, 2021, 33, e2101777.	21.0	10
146	Magnetoelectric coupling in micropatterned BaTiO3/CoFe2O4 epitaxial thin film structures: Augmentation and site-dependency. Applied Physics Letters, 2021, 119, .	3.3	10
147	High-performance electrodeposited Co-rich CoNiReP permanent magnets. Electrochimica Acta, 2011, 56, 8979-8988.	5.2	9
148	Self-organized spatio-temporal micropatterning in ferromagnetic Coâ€“In films. Journal of Materials Chemistry C, 2014, 2, 8259-8269.	5.5	9
149	Mobility-Enhancing Coatings for Vitreoretinal Surgical Devices: Hydrophilic and Enzymatic Coatings Investigated by Microrheology. ACS Applied Materials & Interfaces, 2015, 7, 22018-22028.	8.0	9
150	Silicon-supported aluminum oxide membranes with ultrahigh aspect ratio nanopores. RSC Advances, 2015, 5, 94283-94289.	3.6	9
151	Spontaneous formation of spiral-like patterns with distinct periodic physical properties by confined electrodeposition of Co-In disks. Scientific Reports, 2016, 6, 30398.	3.3	9
152	Nanorobotic drug delivery. Materials Today, 2011, 14, 54.	14.2	8
153	Tailoring the physical properties of electrodeposited CoNiReP alloys with large Re content by direct, pulse, and reverse pulse current techniques. Electrochimica Acta, 2013, 96, 43-50.	5.2	8
154	An Atomic Force Microscope with Dual Actuation Capability for Biomolecular Experiments. Scientific Reports, 2016, 6, 27567.	3.3	8
155	Toward Robust Segmented Nanowires: Understanding the Impact of Crystallographic Texture on the Quality of Segment Interfaces in Magnetic Metallic Nanowires. Advanced Materials Interfaces, 2016, 3, 1600336.	3.7	8
156	Fabrication of sustainable hydrophobic and oleophilic pseudo-ordered macroporous Feâ€“Cu films with tunable composition and pore size via electrodeposition through colloidal templates. Applied Materials Today, 2018, 12, 1-8.	4.3	8
157	Magnetic imaging of a single ferromagnetic nanowire using diamond atomic sensors. Nanotechnology, 2018, 29, 405502.	2.6	8
158	Wet metallization of 3D printed microarchitectures: Application to the manufacturing of bioinspired microswimmers. Journal of Manufacturing Processes, 2022, 78, 11-21.	5.9	8
159	The electrochemical manipulation of apolar solvent drops in aqueous electrolytes by altering the surface polarity of polypyrrole architectures. Electrochemistry Communications, 2015, 54, 32-35.	4.7	7
160	Magnetically and chemically propelled nanowire-based swimmers. , 2020, , 777-799.		7
161	Pathway selection as a tool for crystal defect engineering: A case study with a functional coordination polymer. Applied Materials Today, 2020, 20, 100632.	4.3	7
162	Nanostructured polypyrrole layers implementation on magnetically navigable 3D printed microdevices for targeted gastrointestinal drug delivery. Multifunctional Materials, 2020, 3, 045003.	3.7	7

#	Article	IF	Citations
163	Powering and Fabrication of Small-Scale Robotics Systems. Current Robotics Reports, 2021, 2, 427-440.	7.9	7
164	Tailoring the drug loading capacity of polypyrrole films for use in intraocular biomicrorobots. , 2010, 2010, 4359-62.		6
165	An in-plane cobaltâ€“nickel microresonator sensor with magnetic actuation and readout. Sensors and Actuators A: Physical, 2012, 188, 120-126.	4.1	6
166	Miniaturized magnetic force sensor on a catheter tip. , 2015, , .		6
167	Superparamagnetic hydrogels for Two-Photon Polymerization and their application for the fabrication of swimming microrobots. , 2015, , .		6
168	Self-folding hydrogel bilayer for enhanced drug loading, encapsulation, and transport. , 2016, 2016, 2103-2106.		6
169	Nanomechanics on FGF-2 and Heparin Reveal Slip Bond Characteristics with pH Dependency. ACS Biomaterials Science and Engineering, 2017, 3, 1000-1007.	5.2	6
170	Functional macroporous iron-phosphorous films by electrodeposition on colloidal crystal templates. Electrochimica Acta, 2019, 313, 211-222.	5.2	6
171	Polymeric microellipsoids with programmed magnetic anisotropy for controlled rotation using low (â‰ˆ10 mT) magnetic fields. Applied Materials Today, 2020, 18, 100511.	4.3	6
172	Corrosion mechanisms of magnetic microrobotic platforms in protein media. Applied Materials Today, 2021, 24, 101135.	4.3	6
173	A Submillimeter Continuous Variable Stiffness Catheter for Compliance Control (Adv. Sci. 18/2021). Advanced Science, 2021, 8, 2170118.	11.2	6
174	Magnetoelectric reduction of chromium(VI) to chromium(III). Applied Materials Today, 2022, 26, 101339.	4.3	6
175	Mineralizationâ€Inspired Synthesis of Magnetic Zeolitic Imidazole Framework Composites. Angewandte Chemie, 2019, 131, 13684-13689.	2.0	5
176	Comparative study of the sustainable preparation of FeMn thin films via electrodeposition and magnetron co-sputtering. Surface and Coatings Technology, 2019, 375, 182-196.	4.8	5
177	Highly Adherent Parylene-C Coatings With Nanostructuring for Enhanced Cell Adhesion and Growth. IEEE Transactions on Nanobioscience, 2019, 18, 230-233.	3.3	5
178	Functional polypyrrole coatings for wirelessly controlled magnetic microrobots. , 2013, , .		4
179	Generating Magnetic Fields for Controlling Nanorobots in Medical Applications. , 2013, , 275-299.		4
180	Cobaltâ€“nickel microcantilevers for biosensing. Journal of Intelligent Material Systems and Structures, 2013, 24, 2215-2220.	2.5	4

#	Article	IF	Citations
181	Microrobotics: Electroforming of Implantable Tubular Magnetic Microrobots for Wireless Ophthalmologic Applications (Adv. Healthcare Mater. 2/2015). Advanced Healthcare Materials, 2015, 4, 208-208.	7.6	4
182	The order of addition and time matters: Impact of electrolyte processing on micelle-assisted electrosynthesis of mesoporous alloys. Electrochimica Acta, 2020, 358, 136940.	5.2	4
183	Mesoscopic magnetic systems: From fundamental properties to devices. Applied Physics Letters, 2021, 119, 080401.	3.3	4
184	Characterization and actuation of a magnetic photosensitive polymer cantilever. , 2009, , .		3
185	Oxygen sensing using microrobots. , 2010, 2010, 1958-61.		3
186	Lithography: Hybrid Helical Magnetic Microrobots Obtained by 3D Template-Assisted Electrodeposition (Small 7/2014). Small, 2014, 10, 1234-1234.	10.0	3
187	Targeted Delivery: An Integrated Microrobotic Platform for On-Demand, Targeted Therapeutic Interventions (Adv. Mater. 6/2014). Advanced Materials, 2014, 26, 951-951.	21.0	3
188	The biocompatibility and anti-biofouling properties of magnetic coreâ€“multishell Fe@C NWsâ€“AAO nanocomposites. Physical Chemistry Chemical Physics, 2015, 17, 13274-13279.	2.8	3
189	Dually actuated atomic force microscope with miniaturized magnetic bead-actuators for single-molecule force measurements. Nanoscale Horizons, 2016, 1, 488-495.	8.0	3
190	e-MINDS: A networking COST initiative for surface finishers and corrosion scientists working in micro- and nanosystems technology. Transactions of the Institute of Metal Finishing, 2016, 94, 60-62.	1.3	3
191	Single step electrosynthesis of NiMnGa alloys. Electrochimica Acta, 2016, 204, 199-205.	5.2	3
192	Exploiting electrolyte confinement effects for the electrosynthesis of two-engine micromachines. Applied Materials Today, 2020, 19, 100629.	4.3	3
193	Soft microrobotics. Advances in Chemical Engineering, 2021, 57, 1-44.	0.9	3
194	Layer-by-Layer Fabrication of Hydrogel Microsystems for Controlled Drug Delivery From Untethered Microrobots. Frontiers in Bioengineering and Biotechnology, 2021, 9, 692648.	4.1	3
195	Magnetically Guided Catheters, Micro- and Nanorobots for Spinal Cord Stimulation. Frontiers in Neurorobotics, 2021, 15, 749024.	2.8	3
196	Magnetoelectrics: Hybrid Magnetoelectric Nanowires for Nanorobotic Applications: Fabrication, Magnetoelectric Coupling, and Magnetically Assisted In Vitro Targeted Drug Delivery (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	21.0	2
197	Cross-sectioning spatio-temporal Co-In electrodeposits: Disclosing a magnetically-patterned nanolaminated structure. Materials and Design, 2017, 114, 202-207.	7.0	2
198	Fabrication and Locomotion of Flexible Nanoswimmers. , 2018, , .		2

#	Article	IF	Citations
199	e-MINDs: the COST Action on electrodeposition and corrosion of micro- and nanodevices that sprouted in 2015 and bore fruit. Transactions of the Institute of Metal Finishing, 2019, 97, 171-173.	1.3	2
200	Magnetoelectric Catalysis: Magnetoelectrically Driven Catalytic Degradation of Organics (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	21.0	2
201	Microrobotics: 3D Fabrication of Fully Iron Magnetic Microrobots (Small 16/2019). Small, 2019, 15, 1970086.	10.0	2
202	Fabrication of Bioinspired Artificial Bacterial Flagella Via Two Photon Lithography and Wet Metallization. , 2021, , .		2
203	A microfabricated and microassembled wireless resonator. Sensors and Actuators A: Physical, 2009, 154, 109-116.	4.1	1
204	Magnetic Actuation: Voltageâ€Induced Coercivity Reduction in Nanoporous Alloy Films: A Boost toward Energyâ€Efficient Magnetic Actuation (Adv. Funct. Mater. 32/2017). Advanced Functional Materials, 2017, 27, .	14.9	1
205	MOF Drug Carriers: Biodegradable Metalâ€“Organic Frameworkâ€Based Microrobots (MOFBOTs) (Adv.) Tj ETQq1 1 0.784314 rgBT /Ove	7.6	1
206	Response of remanent magnetization to deformation in geological processes using 3D-printed structures. Earth and Planetary Science Letters, 2020, 539, 116241.	4.4	1
207	Lightweight macroporous Co-Pt electrodeposited films with semi-hard-magnetic properties. Materials and Design, 2022, 213, 110369.	7.0	1
208	An in-plane cobalt-nickel microresonator sensor with magnetic actuation and readout. , 2011, , .		0
209	Iron Nanowires: Graphite Coating of Iron Nanowires for Nanorobotic Applications: Synthesis, Characterization and Magnetic Wireless Manipulation (Adv. Funct. Mater. 7/2013). Advanced Functional Materials, 2013, 23, 782-782.	14.9	0
210	Magnetic Nanowires: Toward Robust Segmented Nanowires: Understanding the Impact of Crystallographic Texture on the Quality of Segment Interfaces in Magnetic Metallic Nanowires (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	8.8	0
211	Metalâ€“Organic Frameworks: Inâ€Flow MOF Lithography (Adv. Mater. Technol. 6/2019). Advanced Materials Technologies, 2019, 4, 1970035.	5.8	0
212	SERS Barcode Libraries: SERS Barcode Libraries: A Microfluidic Approach (Adv. Sci. 12/2020). Advanced Science, 2020, 7, 2070068.	11.2	0
213	An Integrated Flexible Platform of Electromagnetic Metamaterials and Acoustofluidics on Kapton. , 2021, , .		0
214	Synthesis of biodegradable microrobots for biomedical applications. , 0, , .		0
215	Integrated Pedal System for Data Driven Rehabilitation. Sensors, 2021, 21, 8115.	3.8	0
216	Moving right arm in the right place: Ophiuroid-inspired omnidirectional robot driven by coupled dynamical systems. , 2011, , .		0