

Michael C Mcalpine

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

10,633
citations

61984

43
h-index

98798

67
g-index

76
all docs

76
docs citations

76
times ranked

14963
citing authors

#	ARTICLE	IF	CITATIONS
1	3D-printed flexible organic light-emitting diode displays. <i>Science Advances</i> , 2022, 8, eabl8798.	10.3	50
2	3D Printed Skin-Interfaced UV-Visible Hybrid Photodetectors. <i>Advanced Science</i> , 2022, 9, .	11.2	11
3	3D-printed multifunctional materials enabled by artificial-intelligence-assisted fabrication technologies. <i>Nature Reviews Materials</i> , 2021, 6, 27-47.	48.7	140
4	Conduction Cooling and Plasmonic Heating Dramatically Increase Droplet Vitrification Volumes for Cell Cryopreservation. <i>Advanced Science</i> , 2021, 8, 2004605.	11.2	22
5	The 2021 flexible and printed electronics roadmap. <i>Flexible and Printed Electronics</i> , 2021, 6, 023001.	2.7	100
6	3D extrusion bioprinting. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	21.2	127
7	3D Printed Neural Regeneration Devices. <i>Advanced Functional Materials</i> , 2020, 30, 1906237.	14.9	76
8	3D printed self-supporting elastomeric structures for multifunctional microfluidics. <i>Science Advances</i> , 2020, 6, .	10.3	72
9	3D printed patient-specific aortic root models with internal sensors for minimally invasive applications. <i>Science Advances</i> , 2020, 6, eabb4641.	10.3	34
10	3D printed deformable sensors. <i>Science Advances</i> , 2020, 6, eaba5575.	10.3	118
11	In Situ Expansion, Differentiation, and Electromechanical Coupling of Human Cardiac Muscle in a 3D Bioprinted, Chambered Organoid. <i>Circulation Research</i> , 2020, 127, 207-224.	4.5	174
12	3D Bioprinted In Vitro Metastatic Models via Reconstruction of Tumor Microenvironments. <i>Advanced Materials</i> , 2019, 31, e1806899.	21.0	178
13	3D piezoelectric microsystems pop up. <i>Nature Electronics</i> , 2019, 2, 15-16.	26.0	1
14	Biophysical sensing in deep tissue via MRI. <i>Nature Biomedical Engineering</i> , 2019, 3, 11-12.	22.5	1
15	3D printed electronic materials and devices. , 2019, , 309-334.		11
16	3D printed electrically-driven soft actuators. <i>Extreme Mechanics Letters</i> , 2018, 21, 1-8.	4.1	100
17	3D Printed Functional and Biological Materials on Moving Freeform Surfaces. <i>Advanced Materials</i> , 2018, 30, e1707495.	21.0	147
18	Bioprinting: 3D Printed Organ Models with Physical Properties of Tissue and Integrated Sensors (Adv.) <i>Tj ETQq0 0 0_rgBT /Overlock 10 T</i>	5.8	0

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19	3D Printed Organ Models for Surgical Applications. Annual Review of Analytical Chemistry, 2018, 11, 287-306.	5.4	58
20	Spinal Cord Scaffolds: 3D Printed Stem-Cell Derived Neural Progenitors Generate Spinal Cord Scaffolds (Adv. Funct. Mater. 39/2018). Advanced Functional Materials, 2018, 28, 1870283.	14.9	2
21	3D Printing: 3D Printed Functional and Biological Materials on Moving Freeform Surfaces (Adv. Mater.) Tj ETQq1 1 0,784314 rgBT /Over	21.0	210
22	3D Printed Polymer Photodetectors. Advanced Materials, 2018, 30, e1803980.	21.0	113
23	3D Printed Stem-Cell Derived Neural Progenitors Generate Spinal Cord Scaffolds. Advanced Functional Materials, 2018, 28, 1801850.	14.9	173
24	3D Printed Organ Models with Physical Properties of Tissue and Integrated Sensors. Advanced Materials Technologies, 2018, 3, 1700235.	5.8	50
25	3D Printed Stretchable Tactile Sensors. Advanced Materials, 2017, 29, 1701218.	21.0	336
26	Sensing gastrointestinal motility. Nature Biomedical Engineering, 2017, 1, 775-776.	22.5	3
27	The Role of Nanoparticle Design in Determining Analytical Performance of Lateral Flow Immunoassays. Nano Letters, 2017, 17, 7207-7212.	9.1	149
28	Peptide interactions with zigzag edges in graphene. Biointerphases, 2016, 11, 041003.	1.6	6
29	3D printed bionic nanodevices. Nano Today, 2016, 11, 330-350.	11.9	116
30	3D Printing a Susceptibility Assay for Multidrug-Resistant Bacteria. Chem, 2016, 1, 346-348.	11.7	2
31	3D printed nervous system on a chip. Lab on A Chip, 2016, 16, 1393-1400.	6.0	150
32	A flexible barium strontium titanate photodetector array. Extreme Mechanics Letters, 2016, 8, 47-54.	4.1	3
33	From print to patient: 3D-printed personalized nerve regeneration. Biochemist, 2016, 38, 28-31.	0.5	4
34	Bionic Graphene Nanosensors. Springer Series in Biomaterials Science and Engineering, 2016, , 269-297.	1.0	0
35	3D Printed Anatomical Nerve Regeneration Pathways. Advanced Functional Materials, 2015, 25, 6205-6217.	14.9	228
36	Optimal Learning in Experimental Design Using the Knowledge Gradient Policy with Application to Characterizing Nanoemulsion Stability. SIAM-ASA Journal on Uncertainty Quantification, 2015, 3, 320-345.	2.0	25

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37	3D Printed Programmable Release Capsules. Nano Letters, 2015, 15, 5321-5329.	9.1	140
38	Pyro-paraelectricity. Extreme Mechanics Letters, 2015, 2, 20-27.	4.1	12
39	Pyro-paraelectricity: a new effect in heterogeneous material architectures. Proceedings of SPIE, 2015, , .	0.8	0
40	3D Printed Quantum Dot Light-Emitting Diodes. Nano Letters, 2014, 14, 7017-7023.	9.1	371
41	Wireless biomechanical power harvesting via flexible magnetostrictive ribbons. Energy and Environmental Science, 2014, 7, 2243.	30.8	7
42	Tension-induced neurite growth in microfluidic channels. Lab on A Chip, 2013, 13, 3735.	6.0	21
43	Flexible Piezoelectric PMN-PT Nanowire-Based Nanocomposite and Device. Nano Letters, 2013, 13, 2393-2398.	9.1	290
44	Nanoscale Flexoelectricity. Advanced Materials, 2013, 25, 946-974.	21.0	362
45	Biotemplated Synthesis of PZT Nanowires. Nano Letters, 2013, 13, 6197-6202.	9.1	35
46	3D Printed Bionic Ears. Nano Letters, 2013, 13, 2634-2639.	9.1	762
47	Graphene-based wireless bacteria detection on tooth enamel. Nature Communications, 2012, 3, 763.	12.8	806
48	Biomimetic Peptide Nanosensors. Accounts of Chemical Research, 2012, 45, 696-704.	15.6	96
49	Rapid, multiplexed microfluidic phage display. Lab on A Chip, 2012, 12, 562-565.	6.0	30
50	Piezoelectric nanoribbons for monitoring cellular deformations. Nature Nanotechnology, 2012, 7, 587-593.	31.5	153
51	Silk-Based Conformal, Adhesive, Edible Food Sensors. Advanced Materials, 2012, 24, 1067-1072.	21.0	335
52	Enhanced Piezoelectricity and Stretchability in Energy Harvesting Devices Fabricated from Buckled PZT Ribbons. Nano Letters, 2011, 11, 1331-1336.	9.1	452
53	Enhanced piezoelectricity and stretchability in energy harvesting devices fabricated from buckled PZT ribbons (Withdrawal Notice). , 2011, , .		2
54	Preferential Binding of Peptides to Graphene Edges and Planes. Journal of the American Chemical Society, 2011, 133, 14480-14483.	13.7	165

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55	Nanotechnology-enabled flexible and biocompatible energy harvesting. Energy and Environmental Science, 2010, 3, 1275.	30.8	345
56	Chemical Functionalization of Graphene Enabled by Phage Displayed Peptides. Nano Letters, 2010, 10, 4559-4565.	9.1	190
57	Wafer-Scale Nanopatterning and Translation into High-Performance Piezoelectric Nanowires. Nano Letters, 2010, 10, 4595-4599.	9.1	44
58	Electrical detection of pathogenic bacteria via immobilized antimicrobial peptides. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19207-19212.	7.1	317
59	Recognition of Patterned Molecular Ink with Phage Displayed Peptides. Journal of the American Chemical Society, 2010, 132, 1204-1205.	13.7	29
60	Piezoelectric Ribbons Printed onto Rubber for Flexible Energy Conversion. Nano Letters, 2010, 10, 524-528.	9.1	451
61	First Principles Molecular Modeling of Sensing Material Selection for Hybrid Biomimetic Nanosensors. , 2009, , 135-148.		0
62	Development of ultra-high density silicon nanowire arrays for electronics applications. Nano Research, 2008, 1, 9-21.	10.4	59
63	Peptide~Nanowire Hybrid Materials for Selective Sensing of Small Molecules. Journal of the American Chemical Society, 2008, 130, 9583-9589.	13.7	94
64	Si/a-Si Core/Shell Nanowires as Nonvolatile Crossbar Switches. Nano Letters, 2008, 8, 386-391.	9.1	231
65	Highly ordered nanowire arrays on plastic substrates for ultrasensitive flexible chemical sensors. Nature Materials, 2007, 6, 379-384.	27.5	900
66	High-speed integrated nanowire circuits. Nature, 2005, 434, 1085-1085.	27.8	305
67	Scalable Interconnection and Integration of Nanowire Devices without Registration. Nano Letters, 2004, 4, 915-919.	9.1	337
68	High-Performance Nanowire Electronics and Photonics on Glass and Plastic Substrates. Nano Letters, 2003, 3, 1531-1535.	9.1	322
69	Nanoimprint Lithography for Hybrid Plastic Electronics. Nano Letters, 2003, 3, 443-445.	9.1	153