

# Jiaming Zhang

## List of Publications by Year in descending order

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43  
papers

4,641  
citations

186265  
28  
h-index

289244  
40  
g-index

43  
all docs

43  
docs citations

43  
times ranked

5575  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analogue signal and image processing with large memristor crossbars. Nature Electronics, 2018, 1, 52-59.	26.0	879
2	Fully memristive neural networks for pattern classification with unsupervised learning. Nature Electronics, 2018, 1, 137-145.	26.0	787
3	Anatomy of Ag/Hafnia-Based Selectors with $10^{10}$ Nonlinearity. Advanced Materials, 2017, 29, 1604457.	21.0	292
4	Fluorescent, Superparamagnetic Nanospheres for Drug Storage, Targeting, and Imaging: A Multifunctional Nanocarrier System for Cancer Diagnosis and Treatment. ACS Nano, 2010, 4, 5398-5404.	14.6	241
5	Review of A2B2O7 pyrochlore response to irradiation and pressure. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2951-2959.	1.4	202
6	Capacitive neural network with neuro-transistors. Nature Communications, 2018, 9, 3208.	12.8	199
7	Dual Surface-Functionalized Janus Nanocomposites of Polystyrene/ $Fe_3O_4@SiO_2$ for Simultaneous Tumor Cell Targeting and Stimulus-Induced Drug Release. Advanced Materials, 2013, 25, 3485-3489.	21.0	186
8	Low-Power, Self-Rectifying, and Forming-Free Memristor with an Asymmetric Programming Voltage for a High-Density Crossbar Application. Nano Letters, 2016, 16, 6724-6732.	9.1	171
9	An accurate locally active memristor model for S-type negative differential resistance in NbOx. Applied Physics Letters, 2016, 108, .	3.3	155
10	Photoluminescence and photothermal effect of Fe <sub>3</sub> O <sub>4</sub> nanoparticles for medical imaging and therapy. Applied Physics Letters, 2014, 105, .	3.3	128
11	Single-ion tracks in $Gd_2Ti_2O_7$ . Physical Review B, 2009, 79, .	12.2	126
12	Effect of spatial confinement on magnetic hyperthermia via dipolar interactions in Fe <sub>3</sub> O <sub>4</sub> nanoparticles for biomedical applications. Materials Science and Engineering C, 2014, 42, 52-63.	7.3	119
13	Enhanced radiation resistance of nanocrystalline pyrochlore Gd <sub>2</sub> (Ti <sub>0.65</sub> Zr <sub>0.35</sub> ) <sub>2</sub> O <sub>7</sub> . Applied Physics Letters, 2009, 94, .	3.3	98
14	Trilayer Tunnel Selectors for Memristor Memory Cells. Advanced Materials, 2016, 28, 356-362.	21.0	96
15	Nanoscale phase transitions under extreme conditions within an ion track. Journal of Materials Research, 2010, 25, 1344-1351.	2.6	87
16	Nanoscale manipulation of the properties of solids at high pressure with relativistic heavy ions. Nature Materials, 2009, 8, 793-797.	27.5	85
17	Truly Electroforming-Free and Low-Energy Memristors with Preconditioned Conductive Tunneling Paths. Advanced Functional Materials, 2017, 27, 1702010.	14.9	75
18	Response of Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> and La <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> to swift-heavy ion irradiation and annealing. Acta Materialia, 2015, 93, 1-11.	7.9	62

#	ARTICLE	IF	CITATIONS
19	A Low-Current and Analog Memristor with Ru as Mobile Species. <i>Advanced Materials</i> , 2020, 32, e1904599.	21.0	59
20	Growth process and crystallographic properties of ammonia-induced vaterite. <i>American Mineralogist</i> , 2012, 97, 1437-1445.	1.9	58
21	Phase Transformation of Nanosized $ZrO_2$ upon Thermal Annealing and Intense Radiation. <i>Journal of Physical Chemistry C</i> , 2011, 115, 7193-7201.	3.1	56
22	Ion beam-induced amorphous-to-tetragonal phase transformation and grain growth of nanocrystalline zirconia. <i>Nanotechnology</i> , 2009, 20, 245303.	2.6	49
23	Swift heavy ion track formation in $Gd_2Zr_2TiO_7$ pyrochlore: Effect of electronic energy loss. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2014, 336, 102-115.	1.4	48
24	Structural response of $A_2TiO_5$ (A = La, Nd, Sm, Gd) to swift heavy ion irradiation. <i>Acta Materialia</i> , 2012, 60, 4477-4486.	7.9	42
25	Amorphization of nanocrystalline monoclinic $ZrO_2$ by swift heavy ion irradiation. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 12295.	2.8	42
26	Ion-irradiation-induced structural transitions in orthorhombic $Ln_2TiO_5$ . <i>Acta Materialia</i> , 2013, 61, 4191-4199.	7.9	41
27	Intrinsic Structural Disorder and Radiation Response of Nanocrystalline $Gd_2(Ti_{0.65}Zr_{0.35})_2O_7$ Pyrochlore. <i>Journal of Physical Chemistry C</i> , 2010, 114, 11810-11815.	3.1	38
28	Liquid-like phase formation in $Gd_2Zr_2O_7$ by extremely ionizing irradiation. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	30
29	Irradiation of synthetic garnet by heavy ions and $\beta$ -decay of $^{244}Cm$ . <i>Journal of Nuclear Materials</i> , 2010, 407, 137-142.	2.7	28
30	Tailoring the radiation tolerance of vanadate-phosphate fluorapatites by chemical composition control. <i>RSC Advances</i> , 2013, 3, 15178.	3.6	26
31	Swift heavy ion irradiation-induced amorphization of $La_2Ti_2O_7$ . <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2014, 326, 145-149.	1.4	25
32	Thermally induced crystallization in $NbO_2$ thin films. <i>Scientific Reports</i> , 2016, 6, 34294.	3.3	20
33	Carbonate orientational order and superlattice structure in vaterite. <i>Journal of Crystal Growth</i> , 2014, 407, 78-86.	1.5	15
34	Nanosized Rutile ( $TiO_2$ ) Thin Film upon Ion Irradiation and Thermal Annealing. <i>Journal of Physical Chemistry C</i> , 2011, 115, 22755-22760.	3.1	14
35	Dipole-interaction mediated hyperthermia heating mechanism of nanostructured $Fe_3O_4$ composites. <i>Materials Letters</i> , 2014, 129, 57-60.	2.6	14
36	Large Memristor Crossbars for Analog Computing. , 2018, , .		14

#	ARTICLE	IF	CITATIONS
37	Self-assembly of well-aligned 3C-SiC ripples by focused ion beam. Applied Physics Letters, 2008, 92, .	3.3	13
38	The effects of carbon coating on nanoripples induced by focused ion beam. Applied Physics Letters, 2009, 94, 073103.	3.3	10
39	C <sub>60</sub> and U ion irradiation of Gd <sub>2</sub> Ti <sub>x</sub> Zr <sub>2-x</sub> O <sub>7</sub> pyrochlore. Journal of Materials Research, 2015, 30, 2456-2466.	2.6	9
40	Swift heavy ion irradiation of diamond powder. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 262-265.	1.4	2
41	Nanostructurally Designed Ultra-hydrophilic Hard Ceramic Oxide Coatings for Orthopaedic Application. Materials Research Society Symposia Proceedings, 2013, 1578, 1.	0.1	1
42	Phase transformation and chemical decomposition of nanocrystalline SnO <sub>2</sub> under heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2017, 407, 10-19.	1.4	0
43	Electron Tomography Study on Nanoscale HfO <sub>x</sub> /AlO <sub>y</sub> -based Resistive Switching Device. Microscopy and Microanalysis, 2017, 23, 1492-1493.	0.4	0