

Matthew D Pickett

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

29
papers

6,382
citations

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h-index

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g-index

29
ext. papers

7,086
ext. citations

9.5
avg, IF

5.66
L-index

#	Paper	IF	Citations
29	Memristive switching mechanism for metal/oxide/metal nanodevices. <i>Nature Nanotechnology</i> , 2008 , 3, 429-33	28.7	2239
28	A scalable neuristor built with Mott memristors. <i>Nature Materials</i> , 2013 , 12, 114-7	27	614
27	The mechanism of electroforming of metal oxide memristive switches. <i>Nanotechnology</i> , 2009 , 20, 215203-4	14	591
26	Switching dynamics in titanium dioxide memristive devices. <i>Journal of Applied Physics</i> , 2009 , 106, 074508-5	2.5	506
25	High switching endurance in TaOx memristive devices. <i>Applied Physics Letters</i> , 2010 , 97, 232102	3.4	467
24	Direct identification of the conducting channels in a functioning memristive device. <i>Advanced Materials</i> , 2010 , 22, 3573-7	24	278
23	Sub-100 fJ and sub-nanosecond thermally driven threshold switching in niobium oxide crosspoint nanodevices. <i>Nanotechnology</i> , 2012 , 23, 215202	3.4	226
22	Engineering nonlinearity into memristors for passive crossbar applications. <i>Applied Physics Letters</i> , 2012 , 100, 113501	3.4	162
21	Local temperature redistribution and structural transition during joule-heating-driven conductance switching in VO ₂ . <i>Advanced Materials</i> , 2013 , 25, 6128-32	24	139
20	SPICE modeling of memristors 2011 ,		129
19	Metal/TiO ₂ interfaces for memristive switches. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 102, 785-789	2.6	128
18	State Dynamics and Modeling of Tantalum Oxide Memristors. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 2194-2202	2.9	120
17	Continuous electrical tuning of the chemical composition of TaO(x)-based memristors. <i>ACS Nano</i> , 2012 , 6, 2312-8	16.7	100
16	Coexistence of memristance and negative differential resistance in a nanoscale metal-oxide-metal system. <i>Advanced Materials</i> , 2011 , 23, 1730-3	24	91
15	Electrical transport and thermometry of electroformed titanium dioxide memristive switches. <i>Journal of Applied Physics</i> , 2009 , 106, 124504	2.5	81
14	Iron point defect reduction in multicrystalline silicon solar cells. <i>Applied Physics Letters</i> , 2008 , 92, 122103-4	3.4	72
13	Sequential electronic and structural transitions in VO ₂ observed using X-ray absorption spectromicroscopy. <i>Advanced Materials</i> , 2014 , 26, 7505-9	24	67

12	Two- and Three-Terminal Resistive Switches: Nanometer-Scale Memristors and Memistors. <i>Advanced Functional Materials</i> , 2011 , 21, 2660-2665	15.6	64
11	Feedback write scheme for memristive switching devices. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 102, 973-982	2.6	63
10	Lognormal switching times for titanium dioxide bipolar memristors: origin and resolution. <i>Nanotechnology</i> , 2011 , 22, 095702	3.4	61
9	Dopant Control by Atomic Layer Deposition in Oxide Films for Memristive Switches. <i>Chemistry of Materials</i> , 2011 , 23, 123-125	9.6	56
8	Phase transitions enable computational universality in neuristor-based cellular automata. <i>Nanotechnology</i> , 2013 , 24, 384002	3.4	37
7	Impact of geometry on the performance of memristive nanodevices. <i>Nanotechnology</i> , 2011 , 22, 254026	3.4	22
6	Complex intermetallic phase in multicrystalline silicon doped with transition metals. <i>Physical Review B</i> , 2006 , 73,	3.3	20
5	The phase transition in VO ₂ probed using x-ray, visible and infrared radiations. <i>Applied Physics Letters</i> , 2016 , 108, 073102	3.4	20
4	Memristor structures for high scalability: Non-linear and symmetric devices utilizing fabrication friendly materials and processes. <i>Microelectronic Engineering</i> , 2013 , 103, 66-69	2.5	19
3	The Art and Science of Constructing a Memristor Model 2014 , 93-104		4
2	Interactions Between Metals and Different Grain Boundary Types and Their Impact on Multicrystalline Silicon Device Performance 2006 ,		3
1	The Art and Science of Constructing a Memristor Model: Updated 2019 , 267-285		3