Matthew D Pickett

List of Publications by Year in Descending Order

29 papers	6,382 citations	22 h-index	29 g-index
29 ext. papers	7,086 ext. citations	9.5 avg, IF	5.66 L-index

#	Paper	IF	Citations
29	The Art and Science of Constructing a Memristor Model: Updated **2019**, 267-285		3
28	The phase transition in VO2 probed using x-ray, visible and infrared radiations. *Applied Physics Letters*, **2016**, 108, 073102	3.4	20
27	Sequential electronic and structural transitions in VO2 observed using X-ray absorption spectromicroscopy. *Advanced Materials*, **2014**, 26, 7505-9	24	67
26	The Art and Science of Constructing a Memristor Model **2014**, 93-104		4
25	A scalable neuristor built with Mott memristors. *Nature Materials*, **2013**, 12, 114-7	27	614
24	Memristor structures for high scalability: Non-linear and symmetric devices utilizing fabrication friendly materials and processes. *Microelectronic Engineering*, **2013**, 103, 66-69	2.5	19
23	State Dynamics and Modeling of Tantalum Oxide Memristors. *IEEE Transactions on Electron Devices*, **2013**, 60, 2194-2202	2.9	120
22	Phase transitions enable computational universality in neuristor-based cellular automata. *Nanotechnology*, **2013**, 24, 384002	3.4	37
21	Local temperature redistribution and structural transition during joule-heating-driven conductance switching in VO2. *Advanced Materials*, **2013**, 25, 6128-32	24	139
20	Engineering nonlinearity into memristors for passive crossbar applications. *Applied Physics Letters*, **2012**, 100, 113501	3.4	162
19	Continuous electrical tuning of the chemical composition of TaO(x)-based memristors. *ACS Nano*, **2012**, 6, 2312-8	16.7	100
18	Sub-100 fJ and sub-nanosecond thermally driven threshold switching in niobium oxide crosspoint nanodevices. *Nanotechnology*, **2012**, 23, 215202	3.4	226
17	SPICE modeling of memristors **2011**,		129
16	Dopant Control by Atomic Layer Deposition in Oxide Films for Memristive Switches. *Chemistry of Materials*, **2011**, 23, 123-125	9.6	56
15	Two- and Three-Terminal Resistive Switches: Nanometer-Scale Memristors and Memistors. *Advanced Functional Materials*, **2011**, 21, 2660-2665	15.6	64
14	Metal/TiO2 interfaces for memristive switches. *Applied Physics A: Materials Science and Processing*, **2011**, 102, 785-789	2.6	128
13	Feedback write scheme for memristive switching devices. *Applied Physics A: Materials Science and Processing*, **2011**, 102, 973-982	2.6	63

12	Coexistence of memristance and negative differential resistance in a nanoscale metal-oxide-metal system. *Advanced Materials*, **2011**, 23, 1730-3	24	91
11	Lognormal switching times for titanium dioxide bipolar memristors: origin and resolution. *Nanotechnology*, **2011**, 22, 095702	3.4	61
10	Impact of geometry on the performance of memristive nanodevices. *Nanotechnology*, **2011**, 22, 254026	3.4	22
9	High switching endurance in TaOx memristive devices. *Applied Physics Letters*, **2010**, 97, 232102	3.4	467
8	Direct identification of the conducting channels in a functioning memristive device. *Advanced Materials*, **2010**, 22, 3573-7	24	278
7	Electrical transport and thermometry of electroformed titanium dioxide memristive switches. *Journal of Applied Physics*, **2009**, 106, 124504	2.5	81
6	The mechanism of electroforming of metal oxide memristive switches. *Nanotechnology*, **2009**, 20, 215201	3.4	591
5	Switching dynamics in titanium dioxide memristive devices. *Journal of Applied Physics*, **2009**, 106, 074508	2.5	506
4	Memristive switching mechanism for metal/oxide/metal nanodevices. *Nature Nanotechnology*, **2008** , 3, 429-33	28.7	2239
3	Iron point defect reduction in multicrystalline silicon solar cells. *Applied Physics Letters*, **2008**, 92, 122103	3.4	72
2	Interactions Between Metals and Different Grain Boundary Types and Their Impact on Multicrystalline Silicon Device Performance **2006**,		3
1	Complex intermetallic phase in multicrystalline silicon doped with transition metals. *Physical Review B*, **2006**, 73,	3.3	20