

Catherine E Graves

List of Publications by Year in descending order

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35
papers

3,863
citations

393982

19
h-index

500791

28
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36
all docs

36
docs citations

36
times ranked

4610
citing authors

#	ARTICLE	IF	CITATIONS
1	Differentiable Content Addressable Memory with Memristors. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	3
2	In-Memory Computing with Non-volatile Memristor CAM Circuits. , 2022, , 105-139.		2
3	Tree-based machine learning performed in-memory with memristive analog CAM. <i>Nature Communications</i> , 2021, 12, 5806.	5.8	44
4	In-Memory Computing with Memristor Content Addressable Memories for Pattern Matching. <i>Advanced Materials</i> , 2020, 32, e2003437.	11.1	54
5	Analog content-addressable memories with memristors. <i>Nature Communications</i> , 2020, 11, 1638.	5.8	86
6	(Invited) In-Memory Computing with Memristor Circuit Primitives. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 2037-2037.	0.0	0
7	Memristor TCAMs Accelerate Regular Expression Matching for Network Intrusion Detection. <i>IEEE Nanotechnology Magazine</i> , 2019, 18, 963-970.	1.1	30
8	Low-Conductance and Multilevel CMOS-Integrated Nanoscale Oxide Memristors. <i>Advanced Electronic Materials</i> , 2019, 5, 1800876.	2.6	67
9	The Art and Science of Constructing a Memristor Model: Updated. , 2019, , 267-285.		3
10	Memristor-Based Analog Computation and Neural Network Classification with a Dot Product Engine. <i>Advanced Materials</i> , 2018, 30, 1705914.	11.1	517
11	Regular Expression Matching with Memristor TCAMs. , 2018, , .		8
12	Regular Expression Matching with Memristor TCAMs for Network Security. , 2018, , .		8
13	Large Memristor Crossbars for Analog Computing. , 2018, , .		14
14	Analogue signal and image processing with large memristor crossbars. <i>Nature Electronics</i> , 2018, 1, 52-59.	13.1	879
15	Temperature and field-dependent transport measurements in continuously tunable tantalum oxide memristors expose the dominant state variable. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	38
16	Volatile HRS asymmetry and subloops in resistive switching oxides. <i>Nanoscale</i> , 2017, 9, 14414-14422.	2.8	11
17	Low-Power, Self-Rectifying, and Forming-Free Memristor with an Asymmetric Programming Voltage for a High-Density Crossbar Application. <i>Nano Letters</i> , 2016, 16, 6724-6732.	4.5	171
18	Dot-product engine for neuromorphic computing. , 2016, , .		481

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19	Direct Observation of Localized Radial Oxygen Migration in Functioning Tantalum Oxide Memristors. <i>Advanced Materials</i> , 2016, 28, 2772-2776.	11.1	92
20	Memristors: Direct Observation of Localized Radial Oxygen Migration in Functioning Tantalum Oxide Memristors (<i>Adv. Mater.</i> 14/2016). <i>Advanced Materials</i> , 2016, 28, 2771-2771.	11.1	2
21	Irreversible transformation of ferromagnetic ordered stripe domains in single-shot infrared-pump/resonant-x-ray-scattering-probe experiments. <i>Physical Review B</i> , 2015, 91, .	1.1	19
22	In-operando synchronous time-multiplexed O K-edge x-ray absorption spectromicroscopy of functioning tantalum oxide memristors. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	25
23	Low Variability Resistorâ€™Memristor Circuit Masking the Actual Memristor States. <i>Advanced Electronic Materials</i> , 2015, 1, 1500095.	2.6	34
24	Extracting magnetic cluster size and its distributions in advanced perpendicular recording media with shrinking grain size using small angle x-ray scattering. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	4
25	Nanoscale Confinement of All-Optical Magnetic Switching in TbFeCo - Competition with Nanoscale Heterogeneity. <i>Nano Letters</i> , 2015, 15, 6862-6868.	4.5	126
26	Orbital and spin moments of 5 to 11â€%nm Fe ₃ O ₄ nanoparticles measured via x-ray magnetic circular dichroism. <i>Journal of Applied Physics</i> , 2014, 115, 17B537.	1.1	15
27	Opacity effects in a solid-density aluminium plasma created by photo-excitation with an X-ray laser. <i>High Energy Density Physics</i> , 2014, 11, 59-69.	0.4	13
28	Nanoscale spin reversal by non-local angular momentum transfer following ultrafast laser excitation in ferrimagnetic GdFeCo. <i>Nature Materials</i> , 2013, 12, 293-298.	13.3	267
29	Magnetic design evolution in perpendicular magnetic recording media as revealed by resonant small angle x-ray scattering. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	8
30	Resonant $K\hat{\pm}$ Spectroscopy of Solid-Density Aluminum Plasmas. <i>Physical Review Letters</i> , 2012, 109, 245003.	2.9	58
31	Femtosecond Single-Shot Imaging of Nanoscale Ferromagnetic Order in Co/Pd Multilayers Using Resonant X-Ray Holography. <i>Physical Review Letters</i> , 2012, 108, 267403.	2.9	153
32	Creation and diagnosis of a solid-density plasma with an X-ray free-electron laser. <i>Nature</i> , 2012, 482, 59-62.	13.7	400
33	Coherence Properties of Individual Femtosecond Pulses of an X-Ray Free-Electron Laser. <i>Physical Review Letters</i> , 2011, 107, 144801.	2.9	145
34	Optical neuronal guidance in three-dimensional matrices. <i>Journal of Neuroscience Methods</i> , 2009, 179, 278-283.	1.3	22
35	Spatially Resolved Fluorescence Correlation Spectroscopy Using a Spinning Disk Confocal Microscope. <i>Biophysical Journal</i> , 2006, 91, 4241-4252.	0.2	64