Wei Li

List of Publications by Year in descending order

54 papers	2,341 citations	623734 14 h-index	276875 41 g-index
54 all docs	54 docs citations	54 times ranked	4204 citing authors

#	Article	IF	Citations
1	Polarization-sensitive broadband photodetector using a black phosphorus vertical pâ€“n junction. Nature Nanotechnology, 2015, 10, 707-713.	31.5	1,007
2	Metamaterial Perfect Absorber Based Hot Electron Photodetection. Nano Letters, 2014, 14, 3510-3514.	9.1	591
3	Broadband optoelectronic synaptic devices based on silicon nanocrystals for neuromorphic computing. Nano Energy, 2018, 52, 422-430.	16.0	150
4	Raman characterization of the structural evolution in amorphous and partially nanocrystalline hydrogenated silicon thin films prepared by PECVD. Journal of Raman Spectroscopy, 2011, 42, 415-421.	2.5	71
5	Analog Switching and Artificial Synaptic Behavior of Ag/SiOx:Ag/TiOx/p++-Si Memristor Device. Nanoscale Research Letters, 2020, 15, 30.	5.7	65
6	Mimicking Neuroplasticity via Ion Migration in van der Waals Layered Copper Indium Thiophosphate. Advanced Materials, 2022, 34, e2104676.	21.0	46
7	Nanostructured Materials and Architectures for Advanced Optoelectronic Synaptic Devices. Advanced Functional Materials, 2022, 32, .	14.9	45
8	Controllable resistive switching of STO:Ag/SiO2-based memristor synapse for neuromorphic computing. Journal of Materials Science and Technology, 2022, 97, 254-263.	10.7	41
9	Black silicon with self-cleaning surface prepared by wetting processes. Nanoscale Research Letters, 2013, 8, 351.	5.7	33
10	Origins of 1/f noise in nanostructure inclusion polymorphous silicon films. Nanoscale Research Letters, 2011, 6, 281.	5.7	30
11	The Enhanced Light Absorptance and Device Application of Nanostructured Black Silicon Fabricated by Metal-assisted Chemical Etching. Nanoscale Research Letters, 2016, 11, 322.	5.7	27
12	Colorâ€Recognizing Siâ€Based Photonic Synapse for Artificial Visual System. Advanced Intelligent Systems, 2020, 2, 2000107.	6.1	21
13	Low-Dimensional Materials and State-of-the-Art Architectures for Infrared Photodetection. Sensors, 2018, 18, 4163.	3.8	19
14	Synaptic learning and memory functions in SiO₂:Ag/TiO₂ based memristor devices. Journal Physics D: Applied Physics, 2020, 53, 175102.	2.8	16
15	A Modified SiO₂-Based Memristor with Reliable Switching and Multifunctional Synaptic Behaviors. Journal of Physical Chemistry Letters, 2022, 13, 884-893.	4.6	14
16	Boron-doped nanocrystalline silicon germanium thin films for uncooled infrared bolometer applications. Infrared Physics and Technology, 2013, 58, 32-35.	2.9	12
17	Contact resistance improvement using interfacial silver nanoparticles in amorphous indium-zinc-oxide thin film transistors. Applied Physics Letters, 2014, 105, .	3.3	12
18	Raman analysis of amorphous silicon ruthenium thin films embedded with nanocrystals. Journal of Raman Spectroscopy, 2015, 46, 619-623.	2.5	11

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19	Performance enhancement of amorphous indium-zinc-oxide thin film transistors by microwave annealing. Applied Surface Science, 2015, 357, 1915-1919.	6.1	10
20	Enhancement of c-Si surface passivation quality by increasing in situ H2 flow rate. Materials Letters, 2015, 161, 175-177.	2.6	10
21	Investigation of nanocrystallization of a-Si1â^'xGex:H thin films diluted with argon in the PECVD system. Journal of Non-Crystalline Solids, 2013, 365, 37-41.	3.1	9
22	Enhanced near-infrared absorber: two-step fabricated structured black silicon and its device application. Nanoscale Research Letters, 2018, 13, 316.	5.7	9
23	Effect of gas temperature on the structural and optoelectronic properties of a-Si:H thin films deposited by PECVD. Surface and Coatings Technology, 2013, 214, 131-137.	4.8	8
24	Dispersion model for optical constants of a-Si:H. Physica B: Condensed Matter, 2013, 431, 120-126.	2.7	7
25	The relation of structure and dispersion to amorphous silicon silver thin films. Materials Letters, 2016, 185, 5-8.	2.6	7
26	Inhomogeneous crystallization of <scp>aâ€Si</scp> thin films irradiated by femtosecond laser. Journal of Raman Spectroscopy, 2019, 50, 793-801.	2.5	7
27	Artificial synapse arrays based on SiOx/TiOx memristive crossbar with high uniformity for neuromorphic computing. Applied Physics Letters, 2022, 120, .	3.3	7
28	Structural variation and electrical properties of amorphous silicon ruthenium thin films embedded with nanocrystals. Materials Letters, 2015, 143, 80-83.	2.6	6
29	Multifunctional Analog Resistance Switching of Si₃N₄-Based Memristors through Migration of Ag⁺ Ions and Formation of Si-Dangling Bonds. Journal of Physical Chemistry Letters, 2022, 13, 5101-5108.	4.6	6
30	Noise in boron doped amorphous/microcrystallization silicon films. Applied Surface Science, 2008, 254, 3274-3276.	6.1	5
31	Raman and ellipsometric characterization of hydrogenated amorphous silicon thin films. Science in China Series D: Earth Sciences, 2009, 52, 339-343.	0.9	4
32	Structure and electronic states in a-Si:H thin films. Journal of Materials Science, 2012, 47, 5121-5127.	3.7	4
33	Structural evolution and electronic properties of phosphorus-doped hydrogenated amorphous silicon thin films deposited by PECVD. Science China Technological Sciences, 2013, 56, 103-108.	4.0	4
34	Microwave irradiation induced structural evolution of a-Si:H thin film before crystallization. Materials Letters, 2013, 100, 156-158.	2.6	4
35	Band engineering of amorphous silicon ruthenium thin film and its near-infrared absorption enhancement combined with nano-holes pattern on back surface of silicon substrate. Applied Surface Science, 2016, 384, 487-491.	6.1	4
36	Influence of microcrystallization on noise in boronâ€doped silicon film. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 4292-4297.	1.8	3

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37	Hydrogen bonding in hydrogenated amorphous silicon thin films prepared at different precursor gas temperatures with undiluted silane. Science China Technological Sciences, 2011, 54, 2310-2314.	4.0	3
38	New paramagnetic centre and high conductivity in a-Si1â^'xRuxâ€‰:â€‰H thin films. Journal Physics D: Applied Physics, 2013, 46, 475107.	2.8	3
39	Comparison of different etching methods on the morphology and semiconductor characters of black silicon. IOP Conference Series: Materials Science and Engineering, 2017, 250, 012015.	0.6	3
40	Coexistence of Digital and Analog Resistive Switching Behaviours in Ag/CuAlO2/TiO2/p++-Si Memristor. Journal of Physics: Conference Series, 2020, 1637, 012053.	0.4	3
41	Effect on Resistive Switching by Inserting TiO_x Thin Layer in SiO_x: Ag-Based Memristor. Materials Science Forum, 0, 984, 97-103.	0.3	2
42	Structural and optoelectronic properties of a-Si:H: A new analysis based on spectroscopic ellipsometry. Vacuum, 2017, 146, 409-421.	3.5	1
43	Photoelectronic synaptic performance of SiOy/a-Si1-xRux bilayer based memristors. , 2021, , .		1
44	Structural evolution and optical characterization in argon diluted Si:H thin films obtained by plasma enhanced chemical vapor deposition. Central South University, 2010, 17, 1163-1171.	0.5	0
45	New Paramagnetic Center and High Conductivity in a-Si1-xRux:H Thin Films. Materials Research Society Symposia Proceedings, 2013, 1617, 57-62.	0.1	0
46	The realization of optical switching generated from the combination of Ag/a-Si/p-Si memristor and silicon waveguide. Proceedings of SPIE, 2016, , .	0.8	0
47	Improvement of metal-semiconductor contact on silicon microstructured surface by electroless nickel technique. Proceedings of SPIE, 2016, , .	0.8	0
48	Structural and Optoelectronic Properties of a-SiOx: Ag Films Used for Ag/SiOx/p-Si Memristor. IOP Conference Series: Materials Science and Engineering, 2017, 250, 012027.	0.6	0
49	An Artificial Bio-Synapse Based on Ag/a-Si:Ag/a-Si/X Memristors With Different Bottom Electrode X. IOP Conference Series: Materials Science and Engineering, 2018, 452, 042160.	0.6	0
50	Structural Variation and Its Influence on the 1/fNoise of a-Si_{1â^'x}Ru_xThin Films Embedded with Nanocrystals. Chinese Physics Letters, 2019, 36, 028101.	3.3	0
51	Bi-Polar Synaptic Behavior of Pt/SiO_x:Ag/TiO_x/p⁺⁺- Si Memristor. Materials Science Forum, 2020, 984, 104-109.	0.3	0
52	A novel design of a-Si based memristor with optical readout functionality utilizing silicon prism. , 2019, , .		0
53	Optically stimulated synaptic devices based on silicon-tin alloyed thin film. , 2021, , .		0
54	Memristive Behaviour of Ag-doped-HfO₂ Thin Films Prepared by Magnetron Sputtering. Journal of Physics: Conference Series, 2020, 1637, 012024.	0.4	0