Adam Z Stieg

List of Publications by Year
in descending order

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70 papers	3,016 citations	218677 26 h-index	168389 53 g-index
74 all docs	74 docs citations	74 times ranked	5086 citing authors

#	Article	IF	Citations
1	The optoelectronic role of chlorine in CH3NH3PbI3(Cl)-based perovskite solar cells. Nature Communications, 2015, 6, 7269.	12.8	404
2	Piezoelectric effect in chemical vapour deposition-grown atomic-monolayer triangular molybdenum disulfide piezotronics. Nature Communications, 2015, 6, 7430.	12.8	233
3	Emergent Criticality in Complex Turing Bâ€Type Atomic Switch Networks. Advanced Materials, 2012, 24, 286-293.	21.0	182
4	A theoretical and experimental study of neuromorphic atomic switch networks for reservoir computing. Nanotechnology, 2013, 24, 384004.	2.6	178
5	Thermodynamically Controlled Self-Assembly of Covalent Nanoarchitectures in Aqueous Solution. ACS Nano, 2011, 5, 3923-3929.	14.6	162
6	Neuromorphic Atomic Switch Networks. PLoS ONE, 2012, 7, e42772.	2.5	146
7	Glucose inhibits cardiac muscle maturation through nucleotide biosynthesis. ELife, 2017, 6, .	6.0	142
8	Charge-carrier dynamics in hybrid plasmonic organic solar cells with Ag nanoparticles. Applied Physics Letters, 2011, 98, .	3.3	138
9	Morphological and Dimensional Control via Hierarchical Assembly of Doped Oligoaniline Single Crystals. Journal of the American Chemical Society, 2012, 134, 9251-9262.	13.7	99
10	Emergent dynamics of neuromorphic nanowire networks. Scientific Reports, 2019, 9, 14920.	3.3	93
11	Folding of a donor-acceptor polyrotaxane by using noncovalent bonding interactions. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6514-6519.	7.1	84
12	Acoustofluidic sonoporation for gene delivery to human hematopoietic stem and progenitor cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10976-10982.	7.1	72
13	Mitochondrial Ca2+ uptake by the voltage-dependent anion channel 2 regulates cardiac rhythmicity. ELife, 2015, 4, .	6.0	67
14	Atomic switch networksâ€"nanoarchitectonic design of a complex system for natural computing. Nanotechnology, 2015, 26, 204003.	2.6	66
15	Rigid microenvironments promote cardiac differentiation of mouse and human embryonic stem cells. Science and Technology of Advanced Materials, 2013, 14, 025003.	6.1	60
16	Hybrid Transparent PEDOT:PSS Molybdenum Oxide Battery-like Supercapacitors. ACS Applied Energy Materials, 2019, 2, 4629-4639.	5.1	50
17	Nanoarchitectonic atomic switch networks for unconventional computing. Japanese Journal of Applied Physics, 2016, 55, 1102B2.	1.5	47
18	Nanocharacterization in Dentistry. International Journal of Molecular Sciences, 2010, 11, 2523-2545.	4.1	46

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19	Morphological Transitions from Dendrites to Nanowires in the Electroless Deposition of Silver. Crystal Growth and Design, 2013, 13, 465-469.	3.0	46
20	Graphene-Assisted Solution Growth of Vertically Oriented Organic Semiconducting Single Crystals. ACS Nano, 2015, 9, 9486-9496.	14.6	46
21	Spoken Digit Classification by In-Materio Reservoir Computing With Neuromorphic Atomic Switch Networks. Frontiers in Nanotechnology, 2021, 3, .	4.8	43
22	Construction of Robust Bioâ€nanotubes using the Controlled Selfâ€Assembly of Component Proteins of Bacteriophage T4. Small, 2010, 6, 1873-1879.	10.0	41
23	A low noise all-fiber interferometer for high resolution frequency modulated atomic force microscopy imaging in liquids. Review of Scientific Instruments, 2010, 81, 023703.	1.3	39
24	Identification and preliminary clinical evaluation of a 50.8-kDa serum marker for prostate cancer. Urology, 2003, 61, 1261-1265.	1.0	38
25	Two dimensional electrophysiological characterization of human pluripotent stem cell-derived cardiomyocyte system. Scientific Reports, 2017, 7, 43210.	3.3	35
26	In Situ STM Investigation of Aromatic Poly(azomethine) Arrays Constructed by â€œOn-Siteâ€• Equilibrium Polymerization. Langmuir, 2012, 28, 13844-13851.	3.5	31
27	Atomic switch networks as complex adaptive systems. Japanese Journal of Applied Physics, 2018, 57, 03ED02.	1.5	27
28	Multistate resistive switching in silver nanoparticle films. Science and Technology of Advanced Materials, 2015, 16, 045004.	6.1	26
29	Self-Assembling Semiconducting Polymersâ€”Rods and Gels from Electronic Materials. ACS Nano, 2013, 7, 962-977.	14.6	25
30	Heteroleptic Copper Switches. Journal of the American Chemical Society, 2010, 132, 15987-15996.	13.7	20
31	Self-organized atomic switch networks. Japanese Journal of Applied Physics, 2014, 53, 01AA02.	1.5	20
32	Reservoir Computing with Neuromemristive Nanowire Networks. , 2020, , .		20
33	Layer-by-layer hybrid chemical doping for high transmittance uniformity in graphene-polymer flexible transparent conductive nanocomposite. Scientific Reports, 2018, 8, 10259.	3.3	18
34	Mass Spectroscopy as a Discovery Tool for Identifying Serum Markers for Prostate Cancer. Clinical Chemistry, 2001, 47, 1924-1926.	3.2	17
35	Vertical inertial sliding drive for coarse and fine approaches in scanning probe microscopy. Review of Scientific Instruments, 2007, 78, 036110.	1.3	16
36	Thermodynamic Self-Assembly of Two-Dimensional Ï€-Conjugated Metalâ€“Porphyrin Covalent Organic Frameworks by â€œOn-Siteâ€•Equilibrium Polymerization. Journal of Nanoscience and Nanotechnology, 2014, 14, 2211-2216.	0.9	16

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37	Nanoscale neuromorphic networks and criticality: a perspective. Journal of Physics Complexity, 2021, 2, 042001.	2.2	16
38	Surface Immobilized Heteroleptic Copper Compounds as State Variables that Show Negative Differential Resistance. Journal of Physical Chemistry Letters, 2010, 1, 589-593.	4.6	15
39	Using an Engineered Galvanic Redox System to Generate Positive Surface Potentials that Promote Osteogenic Functions. ACS Applied Materials & Interfaces, 2018, 10, 15449-15460.	8.0	14
40	A flexible, highly stable electrochemical scanning probe microscope for nanoscale studies at the solid-liquid interface. Review of Scientific Instruments, 2008, 79, 103701.	1.3	13
41	Aligned carbon nanotube, graphene and graphite oxide thin films via substrate-directed rapid interfacial deposition. Nanoscale, 2012, 4, 3075.	5.6	13
42	Positional selectivity of reversible azomethine condensation reactions at solid/liquid interfaces leading to supramolecule formation. Journal of Electroanalytical Chemistry, 2014, 716, 145-149.	3.8	13
43	Atomic force microscopy correlates antimetastatic potentials of HepG2 cell line with its redox/energy status: effects of curcumin and Khaya senegalensis. Journal of Integrative Medicine, 2017, 15, 214-230.	3.1	13
44	Self-organization and Emergence of Dynamical Structures in Neuromorphic Atomic Switch Networks. , 2014, , 173-209.		12
45	A Molecular-Rotor Device for Nonvolatile High-Density Memory Applications. IEEE Electron Device Letters, 2010, 31, 1047-1049.	3.9	10
46	Atmospheric and Aqueous Deposition of Polycrystalline Metal Oxides Using Mist-CVD for Highly Efficient Inverted Polymer Solar Cells. Nano Letters, 2015, 15, 4948-4954.	9.1	9
47	Emergent brain-like complexity from nanowire atomic switch networks: Towards neuromorphic synthetic intelligence. , 2018, , .		9
48	Harnessing adaptive dynamics in neuro-memristive nanowire networks for transfer learning. , 2020, , .		9
49	Neuromorphic Information Processing with Nanowire Networks. , 2020, , .		9
50	Electrostatic force microscopy as a broadly applicable method for characterizing pyroelectric materials. Nanotechnology, 2012, 23, 235701.	2.6	7
51	Benchtop Fabrication of Memristive Atomic Switch Networks. Journal of Nanoscience and Nanotechnology, 2014, 14, 2792-2798.	0.9	7
52	MNIST classification using Neuromorphic Nanowire Networks. , 2021, , .		7
53	Room temperature negative differential resistance of a monolayer molecular rotor device. Applied Physics Letters, 2009, 95, 093503.	3.3	5
54	Amplification of Conformational Effects via tert-Butyl Groups: Hexa-tert-butyl Decacyclene on Cu(100) at Room Temperature. Langmuir, 2013, 29, 7309-7317.	3.5	5

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55	Observations of image contrast and dimerization of decacyclene by low temperature scanning tunneling microscopy. Journal of Chemical Physics, 2007, 127, 174703.	3.0	4
56	Monomolecular covalent honeycomb nanosheets produced by surface-mediated polycondensation between 1,3,5-triamino benzene and benzene-1,3,5-tricarbox aldehyde on Au(111). Nanoscale Advances, 2020, 2, 3202-3208.	4.6	4
57	Self-organization and Emergence ofÂDynamical Structures inÂNeuromorphic Atomic SwitchÂNetworks. , 2019, , 391-427.		4
58	Protein Adsorption Alters Hydrophobic Surfaces Used for Suspension Culture of Pluripotent Stem Cells. Journal of Physical Chemistry Letters, 2015, 6, 388-393.	4.6	3
59	Self-Organization and Emergence of Dynamic Systems. , 2016, , 163-180.		3
60	Non-temporal logic performance of an atomic switch network. , 2017, , .		3
61	Pacemaker translocations and power laws in 2D stem cell-derived cardiomyocyte cultures. PLoS ONE, 2022, 17, e0263976.	2.5	2
62	Programmable Fading Memory in Atomic Switch Systems for Error Checking Applications. Natural Computing Series, 2021, , 273-303.	2.2	1
63	Cardio PyMEA: A user-friendly, open-source Python application for cardiomyocyte microelectrode array analysis. PLoS ONE, 2022, 17, e0266647.	2.5	1
64	A nano-scale molecular rotor device for high density memory application. , 2009, , .		0
65	Protein engineering: Construction of Robust Bio-nanotubes using the Controlled Self-Assembly of Component Proteins of Bacteriophage T4 (Small 17/2010). Small, 2010, 6, n/a-n/a.	10.0	0
66	Unorganized Machines: Emergent Criticality in Complex Turing Bâ€Type Atomic Switch Networks (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10	21.0	0
67	Morphic atomic switch networks for beyond-Moore computing architectures. , 2015, , .		0
68	Abstract 134: Rigid Microenvironments Promote Cardiac Differentiation Of Mouse And Human Embryonic Stem Cells. Circulation Research, 2013, 113, .	4.5	0
69	Self-Organization and Emergence of Dynamic Systems. , 2015, , 1-14.		0
70	Abstract 346: Glucose Inhibits Cardiomyocyte Maturation Through Nucleotide Biosynthesis. Circulation Research, 2017, 121, .	4.5	0