Simon A Brown

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.

100 papers	1,818 citations	25 h-index	36 g-index
115 ext. papers	2,101 ext. citations	4.2 avg, IF	4.69 L-index

#	Paper	IF	Citations
100	Real-time TEM and kinetic Monte Carlo studies of the coalescence of decahedral gold nanoparticles. *ACS Nano*, **2009**, 3, 3809-13	16.7	94
99	A hydrogen sensor based on tunneling between palladium clusters. *Applied Physics Letters*, **2007**, 91, 181910	3.4	83
98	Magneto-optical probe of two-dimensional electron liquid and solid phases. *Physical Review B*, **1992** , 46, 7957-7960	3.3	82
97	Finite-size effects in the conductivity of cluster assembled nanostructures. *Physical Review Letters*, **2002**, 88, 226802	7.4	69
96	Particle size effect of hydrogen-induced lattice expansion of palladium nanoclusters. *Physical Review B*, **2008**, 78,	3.3	68
95	Coalescence of nanoscale metal clusters: Molecular-dynamics study. *Physical Review B*, **2003**, 68,	3.3	59
94	A crystallographic orientation transition and early stage growth characteristics of thin Bi films on HOPG. *Surface Science*, **2005**, 587, 175-184	1.8	57
93	The new deficit model. *Nature Nanotechnology*, **2009**, 4, 609-11	28.7	52
92	STM and XPS investigations of bismuth islands on HOPG. *Surface Science*, **2011**, 605, 659-667	1.8	45
91	Electronic size effects in three-dimensional nanostructures. *Nano Letters*, **2013**, 13, 43-7	11.5	36
90	Reactive-ion-etched gallium nitride: Metastable defects and yellow luminescence. *Applied Physics Letters*, **1999**, 75, 3285-3287	3.4	34
89	Evolution of the interband absorption threshold with the density of a two-dimensional electron gas. *Physical Review B*, **1996**, 54, R11082-R11085	3.3	33
88	Construction and Application of a UHV Compatible Cluster Deposition System. *Journal of Nanoparticle Research*, **2006**, 8, 405-416	2.3	32
87	Tin oxide nanocluster hydrogen and ammonia sensors. *Nanotechnology*, **2008**, 19, 015502	3.4	31
86	Ag-Au nanoclusters: Structure and phase segregation. *Applied Physics Letters*, **2011**, 99, 171914	3.4	30
85	Covalently anchored carboxyphenyl monolayer via aryldiazonium ion grafting: a well-defined reactive tether layer for on-surface chemistry. *Langmuir*, **2014**, 30, 7104-11	4	29
84	Facile fabrication of complex networks of memristive devices. *Scientific Reports*, **2017**, 7, 7955	4.9	28

83	Avalanches and criticality in self-organized nanoscale networks. *Science Advances*, **2019**, 5, eaaw8438	14.3	28
82	Vortex Dynamics and Instabilities in Layered and Homogeneous Ta/Ge Superconductors. *Physical Review Letters*, **1997**, 78, 3378-3381	7.4	28
81	Templated-assembly of conducting antimony cluster wires. *Nanotechnology*, **2004**, 15, 1382-1387	3.4	28
80	Scanning Tunneling and Atomic Force Microscopy Evidence for Covalent and Noncovalent Interactions between Aryl Films and Highly Ordered Pyrolytic Graphite. *Journal of Physical Chemistry C*, **2014**, 118, 5820-5826	3.8	27
79	Engineering multiple topological phases in nanoscale Van der Waals heterostructures: realisation of antimonene. *2D Materials*, **2018**, 5, 011002	5.9	26
78	Quantized conductance and switching in percolating nanoparticle films. *Physical Review Letters*, **2013**, 111, 136808	7.4	26
77	Reactive ion etch-induced effects on the near-band-edge luminescence in GaN. *Applied Physics Letters*, **1999**, 74, 3185-3187	3.4	26
76	Evolution of neck radius and relaxation of coalescing nanoparticles. *Physical Review B*, **2009**, 80,	3.3	25
75	Bi on graphite: Morphology and growth characteristics of star-shaped dendrites. *Physical Review B*, **2006**, 73,	3.3	25
74	Reentrant adhesion behavior in nanocluster deposition. *Physical Review Letters*, **2006**, 97, 186103	7.4	25
73	Molecular dynamics simulations of reflection and adhesion behavior in Lennard-Jones cluster deposition. *Physical Review B*, **2007**, 76,	3.3	25
72	From the adhesion of atomic clusters to the fabrication of nanodevices. *Applied Physics Letters*, **2006**, 89, 213105	3.4	25
71	Coefficient of restitution for bouncing nanoparticles. *Physical Review B*, **2010**, 81,	3.3	22
70	The effects of annealing and growth temperature on the morphologies of Bi nanostructures on HOPG. *Surface Science*, **2010**, 604, 1273-1282	1.8	22
69	Growth of oriented Bi nanorods at graphite step-edges. *Physical Review B*, **2005**, 72,	3.3	22
68	First-principles and spectroscopic studies of Bi(110) films: Thickness-dependent Dirac modes and property oscillations. *Physical Review B*, **2014**, 90,	3.3	21
67	Anisotropic oxidation of bismuth nanostructures: Evidence for a thin film allotrope of bismuth. *Applied Physics Letters*, **2012**, 100, 151904	3.4	21
66	Fractal electronic devices: simulation and implementation. *Nanotechnology*, **2011**, 22, 365304	3.4	21

65	Resonant tunneling in double-quantum-well triple-barrier heterostructures. *Physical Review B*, **1996**, 54, 4857-4862	3.3	21
64	High resolution reactive ion etching of GaN and etch-induced effects. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1999**, 17, 2759		20
63	Fermi-edge singularities in photoluminescence from modulation-doped GaAs quantum wells. *Physical Review B*, **1997**, 56, 3937-3940	3.3	19
62	Effects of dry processing on the optical properties of GaN. *Journal of Applied Physics*, **2000**, 88, 7110-7114	2.5	19
61	Realization of Symmetry-Enforced Two-Dimensional Dirac Fermions in Nonsymmorphic Bismuthene. *ACS Nano*, **2020**, 14, 1888-1894	16.7	18
60	Stable Self-Assembled Atomic-Switch Networks for Neuromorphic Applications. *IEEE Transactions on Electron Devices*, **2017**, 64, 5194-5201	2.9	18
59	Atomic Scale Dynamics Drive Brain-like Avalanches in Percolating Nanostructured Networks. *Nano Letters*, **2020**, 20, 3935-3942	11.5	17
58	Neuromorphic behavior in percolating nanoparticle films. *Physical Review E*, **2015**, 92, 052134	2.4	17
57	Morphological differences between Bi, Ag and Sb nano-particles and how they affect the percolation of current through nano-particle networks. *European Physical Journal D*, **2006**, 39, 415-422	1.3	17
56	Synaptic dynamics in complex self-assembled nanoparticle networks. *Faraday Discussions*, **2019**, 213, 471-485	3.6	17
55	Topological phases in double layers of bismuthene and antimonene. *Nanotechnology*, **2017**, 28, 395706	3.4	16
54	Continuum percolation with tunneling. *Physical Review B*, **2014**, 89,	3.3	16
53	Topological phase stability and transformation of bismuthene. *Europhysics Letters*, **2017**, 119, 27002	1.6	15
52	Single atomic layer allotrope of bismuth with rectangular symmetry. *Physical Review B*, **2017**, 96,	3.3	13
51	Experimental and simulational study of the operation conditions for a high transmission mass filter. *Review of Scientific Instruments*, **2007**, 78, 053906	1.7	13
50	Three-dimensional growth characteristics of antimony aggregates on graphite. *European Physical Journal D*, **2006**, 39, 433-438	1.3	13
49	Origin of the moir pattern in thin Bi films deposited on HOPG. *Physical Review B*, **2015**, 91,	3.3	12
48	Moir patterns in van der Waals heterostructures. *Physical Review B*, **2019**, 99,	3.3	12

47	Long-range temporal correlations in scale-free neuromorphic networks. *Network Neuroscience*, **2020**, 4, 432-447	5.6	11
46	The size dependence of tin oxide atomic cluster nanowire field effect transistors. *Nanotechnology*, **2009**, 20, 425201	3.4	11
45	Germanium nano-cluster films as humidity and hydrogen sensors. *Journal of Applied Physics*, **2012**, 112, 074514	2.5	11
44	Structure of oxidized bismuth nanoclusters. *Acta Crystallographica Section B: Structural Science*, **2007**, 63, 569-76		11
43	Moir patterns: a simple analytical model. *2D Materials*, **2020**, 7, 011005	5.9	11
42	Electrical characterization of gold island films: A route to control of nanoparticle deposition. *Applied Physics Letters*, **2008**, 93, 203111	3.4	10
41	Electrical measurements of nanoscale bismuth cluster films. *European Physical Journal D*, **2003**, 24, 291-294	1.3	10
40	Synchrotron x-ray diffraction measurements of strain in metallic nanoparticles with oxide shells. *Journal Physics D: Applied Physics*, **2010**, 43, 075301	3	9
39	Growth of nanorods and mesoscale stars prior to an orientation transition in thin Bi films on graphite. *Applied Surface Science*, **2006**, 252, 5563-5567	6.7	8
38	The nanocoherer: an electrically and mechanically resettable resistive switching device based on gold clusters assembled on paper. *Nano Futures*, **2018**, 2, 011002	3.6	7
37	Grain boundaries between bismuth nanocrystals. *Acta Materialia*, **2012**, 60, 674-681	8.4	7
36	Oblique Impacts and Rebounds of Lennard-Jones Clusters on Solid Surfaces. *Mathematics and Mechanics of Solids*, **2010**, 15, 771-781	2.3	7
35	Anisotropic corner crossing barriers in nanorod growth. *Journal of Physics: Conference Series*, **2008**, 100, 072007	0.3	7
34	Structure of palladium nanoclusters for hydrogen gas sensors. *Current Applied Physics*, **2008**, 8, 443-446	2.6	7
33	Magnetic-field-induced bistability in resonant tunneling. *Physical Review B*, **1998**, 58, R1758-R1761	3.3	7
32	Inter-Landau-level transitions near the threshold of 2D-2D tunneling. *Physical Review B*, **1997**, 56, 1967-1972	3.3	6
31	A new design for a UHV compatible Czochralski crystal growth system. *Review of Scientific Instruments*, **1990**, 61, 2427-2429	1.7	6
30	Survey of electronic structure of Bi and Sb thin films by first-principles calculations and photoemission measurements. *Journal of Physics and Chemistry of Solids*, **2019**, 128, 109-117	3.9	6

29	STM driven modification of bismuth nanostructures. *Surface Science*, **2014**, 621, 140-145	1.8	5
28	Lattice dynamics in Sn nanoislands and cluster-assembled films. *Physical Review B*, **2017**, 95,	3.3	5
27	The morphology of tin cluster assembled films and the effect of nitrogen. *European Physical Journal D*, **2011**, 61, 81-85	1.3	5
26	Quantum fluctuations in percolating superconductors: an evolution with effective dimensionality. *Nanotechnology*, **2017**, 28, 165704	3.4	4
25	Structure of unsupported antimony nanoclusters. *European Physical Journal D*, **2005**, 34, 29-34	1.3	4
24	Argon plasma etching of gallium nitride: spectroscopic surprises. *Nanotechnology*, **2000**, 11, 263-269	3.4	4
23	Percolating transport in superconducting nanoparticle films. *Journal of Applied Physics*, **2017**, 122, 223902	2.5	3
22	Electrical signature of nanoscale coalescence in a percolating Bi nanocluster film. *Physical Review B*, **2010**, 82,	3.3	3
21	Gas Dynamic Considerations for Performance of Nanocluster Deposition System **2011**,		3
20	The use of wide ballistic cavities to investigate local weak localization processes induced by geometric scattering. *Semiconductor Science and Technology*, **1996**, 11, 1189-1197	1.8	3
19	Production and assembly of atomic clusters. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1217-1222	1.6	3
18	Electron microscopy of bismuth building blocks for self-assembled nanowires. *Current Applied Physics*, **2006**, 6, 453-456	2.6	3
17	Growth and electronic properties of NaCl on HOPG. *Surface Science*, **2014**, 620, 45-50	1.8	2
16	Characterization of a template process for conducting cluster-assembled wires. *Applied Physics A: Materials Science and Processing*, **2009**, 97, 315-321	2.6	2
15	Oxidation of bismuth cluster films. *Current Applied Physics*, **2008**, 8, 287-290	2.6	2
14	Hydrogen sensors based on percolation and tunneling in films of palladium clusters **2007**,		2
13	A patterned gate architecture for the study of high-quality AlGaAs/GaAs systems in the extreme quantum limit. *Semiconductor Science and Technology*, **1994**, 9, 392-397	1.8	2
12	Nanowire networks: how does small-world character evolve with dimensionality?. *Nanoscale Horizons*, **2021**, 6, 482-488	10.8	2

List of Publications

11	Synaptic and neuromorphic functions: general discussion. *Faraday Discussions*, **2019**, 213, 553-578	3.6	1
10	The superconducting proximity effect in epitaxial Al/Pb nanocomposites. *Superconductor Science and Technology*, **2014**, 27, 015008	3.1	1
9	The fabrication and optical characterisation of SnO2 cluster films. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 931-934	1.6	1
8	Electrically conducting Bi cluster-assembled wires formed using SiN nanostencils. *Microelectronic Engineering*, **2006**, 83, 1460-1463	2.5	1
7	Structure of palladium nanoclusters for hydrogen gas sensors. *Materials at High Temperatures*, **2007** , 24, 211-216	1.1	1
6	Selective Filling and Sintering of Copper Nanoclusters for Interconnect. *IEEE Nanotechnology Magazine*, **2007**, 6, 556-560	2.6	1
5	Conductivity, photoconductivity and optical properties of amorphous GaN films. *Materials Research Society Symposia Proceedings*, **2001**, 693, 81		1
4	Antimony oxide nanostructures in the monolayer limit: self-assembly of van der Waals-bonded molecular building blocks. *Nanotechnology*, **2021**, 32, 125701	3.4	0
3	Removable capping layer for air-sensitive GdN. *Nanotechnology*, **2020**, 31, 275709	3.4	
2	Power law fitting procedures: The electrical conductance of coalescing nanocluster films. *Journal of Applied Physics*, **2011**, 109, 014910	2.5	
1	Bi cluster-assembled interconnects produced using SU8 templates. *Nanotechnology*, **2007**, 18, 155607	3.4	