Steven R Schofield

List of Publications by Year
in descending order

79 papers	2,063 citations	279487 23 h-index	243296 44 g-index
79 all docs	79 docs citations	79 times ranked	1687 citing authors

#	Article	IF	Citations
1	Atomic and molecular functionalisation of technological materials: an introduction to nanoscale processes on semiconductor surfaces. Journal of Physics Condensed Matter, 2022, 34, 210401.	0.7	0
2	Determination of the preferred reaction pathway of acetophenone on Si(001) using photoelectron diffraction. Journal of Physics Condensed Matter, 2021, 33, 214002.	0.7	1
3	Charge Density Waves in Electron-Doped Molybdenum Disulfide. Nano Letters, 2021, 21, 5516-5521.	4.5	10
4	The formation of a Sn monolayer on Ge(1 0 0) studied at the atomic scale. Applied Surface Science, 2021, 561, 149961.	3.1	3
5	Substitutional Tin Acceptor States in Black Phosphorus. Journal of Physical Chemistry C, 2021, 125, 22883-22889.	1.5	5
6	Atomic-Scale Patterning of Arsenic in Silicon by Scanning Tunneling Microscopy. ACS Nano, 2020, 14, 3316-3327.	7.3	36
7	Dissociation of CH₃â€“O as a Driving Force for Methoxyacetophenone Adsorption on Si(001). Journal of Physical Chemistry C, 2019, 123, 22239-22249.	1.5	11
8	Two- to three-dimensional crossover in a dense electron liquid in silicon. Physical Review B, 2018, 97, .	1.1	5
9	Higher order reconstructions of the Ge(001) surface induced by a Ba layer. Applied Surface Science, 2018, 435, 438-443.	3.1	2
10	Mosquito repellents for the traveller: does picaridin provide longer protection than DEET?. Journal of Travel Medicine, 2018, 25, S10-S15.	1.4	23
11	Exact location of dopants below the Si(001):H surface from scanning tunneling microscopy and density functional theory. Physical Review B, 2017, 95, .	1.1	10
12	Nondestructive imaging of atomically thin nanostructures buried in silicon. Science Advances, 2017, 3, e1602586.	4.7	56
13	Orientation and stability of a bi-functional aromatic organic molecular adsorbate on silicon. Physical Chemistry Chemical Physics, 2016, 18, 27290-27299.	1.3	4
14	Reaction paths of phosphine dissociation on silicon (001). Journal of Chemical Physics, 2016, 144, 014705.	1.2	36
15	Adsorption and Dissociation of a Bicyclic Tertiary Diamine, Triethylenediamine, on a Si(100)-2 Ã— 1 Surface. Journal of Physical Chemistry C, 2016, 120, 28672-28681.	1.5	2
16	STM and DFT study on formation and characterization of Ba-incorporated phases on a Ge(001) surface. Physical Review B, 2016, 93, .	1.1	7
17	Initial growth of Ba on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ge</mml:mi><mml:mo>(</mml:mo><mml:mn>001</mml:mn> An STM and DFT study. Physical Review B, 2015, 91, .		
18	Ba termination of Ge(001) studied with STM. Nanotechnology, 2015, 26, 155701.	1.3	7

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19	Organic molecules on inorganic surfaces. Journal of Physics Condensed Matter, 2015, 27, 050301.	0.7	0
20	Manipulating the orientation of an organic adsorbate on silicon: a NEXAFS study of acetophenone on Si(0â€‰0â€‰1). Journal of Physics Condensed Matter, 2015, 27, 054002.	0.7	10
21	Water-Induced, Spin-Dependent Defects on the Silicon (001) Surface. Journal of Physical Chemistry C, 2015, 119, 11612-11618.	1.5	4
22	Single dopants in semiconductors. Journal of Physics Condensed Matter, 2015, 27, 150301.	0.7	0
23	Interface and nanostructure evolution of cobalt germanides on Ge(001). Journal of Applied Physics, 2014, 115, .	1.1	17
24	Imaging of buried phosphorus nanostructures in silicon using scanning tunneling microscopy. Applied Physics Letters, 2014, 104, .	1.5	8
25	Investigating individual arsenic dopant atoms in silicon using low-temperature scanning tunnelling microscopy. Journal of Physics Condensed Matter, 2014, 26, 012001.	0.7	28
26	Studying atomic scale structural and electronic properties of ion implanted silicon samples using cross-sectional scanning tunneling microscopy. Applied Physics Letters, 2013, 102, 012107.	1.5	8
27	Phenyl Attachment to Si(001) via STM Manipulation of Acetophenone. Journal of Physical Chemistry C, 2013, 117, 5736-5741.	1.5	16
28	Quantum engineering at the silicon surface using dangling bonds. Nature Communications, 2013, 4, 1649.	5.8	148
29	Magnetic anisotropy of single Mn acceptors in GaAs in an external magnetic field. Physical Review B, 2013, 88, .	1.1	5
30	Site-Dependent Ambipolar Charge States Induced by Group V Atoms in a Silicon Surface. ACS Nano, 2012, 6, 10456-10462.	7.3	14
31	Slab Thickness Effects for the Clean and Adsorbed Ge(001) Surface with Comparison to Si(001). Journal of Physical Chemistry C, 2012, 116, 6615-6622.	1.5	11
32	Guided Self-Assembly of Metal Atoms on Silicon Using Organic-Molecule Templating. Journal of the American Chemical Society, 2012, 134, 15312-15317.	6.6	17
33	Preexposure Rabies Vaccination Schedule. Journal of Travel Medicine, 2012, 19, 136.1-136.	1.4	0
34	Charge density waves in the graphene sheets of the superconductor CaC6. Nature Communications, 2011, 2, 558.	5.8	56
35	Acetic acid on silicon (001): An exercise in chemical analogy. Physical Review B, 2011, 84, .	1.1	6
36	Model system for controlling strain in silicon at the atomic scale. Physical Review B, 2011, 84, .	1.1	6

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37	Dimer pinning and the assignment of semiconductorâ€“adsorbate surface structures. Journal of Chemical Physics, 2011, 134, 064709.	1.2	4
38	Comment on â€œTransformation of C-type defects on surface at room temperature STM/STS study [Surf. Sci. 602 (2008) 2835]â€. Surface Science, 2010, 604, 235-236.	0.8	2
39	Electronic effects of single H atoms on Ge(001) revisited. Journal of Chemical Physics, 2010, 133, 014703.	1.2	10
40	RadnyetÂal.Reply:. Physical Review Letters, 2009, 103, .	2.9	11
41	Carbonyl mediated attachment to silicon: Acetaldehyde on Si(001). Journal of Chemical Physics, 2009, 131, 104707.	1.2	8
42	Acetone on silicon (001): ambiphilic molecule meets ambiphilic surface. Physical Chemistry Chemical Physics, 2009, 11, 2747.	1.3	20
43	Interaction of acetone with the Si(001) surface. Surface Science, 2008, 602, 3484-3498.	0.8	11
44	Water on silicon (001):Cdefects and initial steps of surface oxidation. Physical Review B, 2008, 77, .	1.1	36
45	Electronic effects induced by single hydrogen atoms on the Ge(001) surface. Journal of Chemical Physics, 2008, 128, 244707.	1.2	6
46	Valence Surface Electronic States on Ge(001). Physical Review Letters, 2008, 100, 246807.	2.9	34
47	Atomically precise silicon device fabrication. , 2007, , .		1
48	Single hydrogen atoms on the Si(001) surface. Physical Review B, 2007, 76, .	1.1	28
49	Single P and As dopants in the Si(001) surface. Journal of Chemical Physics, 2007, 127, 184706.	1.2	8
50	Organic Bonding to Silicon via a Carbonyl Group:Â New Insights from Atomic-Scale Images. Journal of the American Chemical Society, 2007, 129, 11402-11407.	6.6	26
51	Towards hybrid silicon-organic molecular electronics: The stability of acetone on the Si(001) surface. Surface Science, 2007, 601, 5757-5761.	0.8	6
52	Thermal dissociation and desorption ofPH3on Si(001): A reinterpretation of spectroscopic data. Physical Review B, 2006, 74, .	1.1	57
53	Phosphine Dissociation and Diffusion on Si(001) Observed at the Atomic Scale. Journal of Physical Chemistry B, 2006, 110, 3173-3179.	1.2	28
54	Phosphorus and hydrogen atoms on the (001) surface of silicon: A comparative scanning tunnelling microscopy study of surface species with a single dangling bond. Surface Science, 2006, 600, 318-324.	0.8	20

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55	Acetone on Si(001) - an adsorption study for siliconbased molecular electronics. , 2006, , .		0
56	Importance of charging in atomic resolution scanning tunneling microscopy: Study of a single phosphorus atom in aSi(001)surface. Physical Review B, 2006, 74, .	1.1	14
57	Atomic-scale observation and control of the reaction of phosphine with silicon. E-Journal of Surface Science and Nanotechnology, 2006, 4, 609-613.	0.1	5
58	Towards the Routine Fabrication of P in Si Nanostructures: Understanding P Precursor Molecules on Si(001). Materials Research Society Symposia Proceedings, 2005, 864, 541.	0.1	2
59	Phosphine adsorption and dissociation on the Si(001) surface: Anab initiosurvey of structures. Physical Review B, 2005, 72, .	1.1	44
60	Observation of substitutional and interstitial phosphorus on cleanSi(100)â^'(2Ã—1)with scanning tunneling microscopy. Physical Review B, 2005, 72, .	1.1	11
61	Scanning probe microscopy for silicon device fabrication. Molecular Simulation, 2005, 31, 505-515.	0.9	50
62	Phosphine Dissociation on the Si(001) Surface. Physical Review Letters, 2004, 93, 226102.	2.9	65
63	STM characterization of the Si-P heterodimer. Physical Review B, 2004, 69, .	1.1	40
64	Toward Atomic-Scale Device Fabrication in Silicon Using Scanning Probe Microscopy. Nano Letters, 2004, 4, 1969-1973.	4.5	150
65	Split-off dimer defects on theSi(001)2Ã—1surface. Physical Review B, 2004, 69, .	1.1	25
66	Critical issues in the formation of atomic arrays of phosphorus in silicon for the fabrication of a solid-state quantum computer. Surface Science, 2003, 532-535, 678-684.	0.8	8
67	Towards the atomic-scale fabrication of a silicon-based solid state quantum computer. Surface Science, 2003, 532-535, 1209-1218.	0.8	23
68	Progress in silicon-based quantum computing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1451-1471.	1.6	60
69	Scanning tunneling microscopy imaging of charged defects on clean Si(100)-(2Ã—1). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1506-1509.	0.9	14
70	Atomically Precise Placement of Single Dopants in Si. Physical Review Letters, 2003, 91, 136104.	2.9	334
71	Challenges in Surface Science for a P-in-Si Quantum Computer â€" Phosphine Adsorption/Incorporation and Epitaxial Si Encapsulation. Surface Review and Letters, 2003, 10, 415-423.	0.5	2
72	Encapsulation of phosphorus dopants in silicon for the fabrication of a quantum computer. Applied Physics Letters, 2002, 81, 3197-3199.	1.5	92

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73	Scanning tunnelling microscope fabrication of arrays of phosphorus atom qubits for a silicon quantum computer. Smart Materials and Structures, 2002, 11, 741-748.	1.8	8
74	Imaging charged defects on clean Si(100)-(2Ã—1) with scanning tunneling microscopy. Journal of Applied Physics, 2002, 92, 820-824.	1.1	35
75	<title>Nanoscale phosphorous atom arrays created using STM for the fabricaton of a silicon-based quantum computer</title>. , 2001, , .		0
76	Towards the fabrication of phosphorus qubits for a silicon quantum computer. Physical Review B, 2001, 64, .	1.1	174
77	Energetics of single- and double-layer steps on theSi(001)2Ã—1surface calculated using the extended Brenner empirical potential. Physical Review B, 2000, 62, 10199-10206.	1.1	12
78	The atomic fabrication of a silicon based quantum computer. , 0, , .		0
79	Minimisation of P surface segregation during epitaxial silicon growth for the fabrication of a silicon-based quantum computer. , 0, , .		0