

Steven R Schofield

List of Publications by Year in descending order

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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	Atomically Precise Placement of Single Dopants in Si. <i>Physical Review Letters</i> , 2003, 91, 136104.	2.9	334
2	Towards the fabrication of phosphorus qubits for a silicon quantum computer. <i>Physical Review B</i> , 2001, 64, .	1.1	174
3	Toward Atomic-Scale Device Fabrication in Silicon Using Scanning Probe Microscopy. <i>Nano Letters</i> , 2004, 4, 1969-1973.	4.5	150
4	Quantum engineering at the silicon surface using dangling bonds. <i>Nature Communications</i> , 2013, 4, 1649.	5.8	148
5	Encapsulation of phosphorus dopants in silicon for the fabrication of a quantum computer. <i>Applied Physics Letters</i> , 2002, 81, 3197-3199.	1.5	92
6	Phosphine Dissociation on the Si(001) Surface. <i>Physical Review Letters</i> , 2004, 93, 226102.	2.9	65
7	Progress in silicon-based quantum computing. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 1451-1471.	1.6	60
8	Thermal dissociation and desorption of PH ₃ on Si(001): A reinterpretation of spectroscopic data. <i>Physical Review B</i> , 2006, 74, .	1.1	57
9	Charge density waves in the graphene sheets of the superconductor CaC ₆ . <i>Nature Communications</i> , 2011, 2, 558.	5.8	56
10	Nondestructive imaging of atomically thin nanostructures buried in silicon. <i>Science Advances</i> , 2017, 3, e1602586.	4.7	56
11	Scanning probe microscopy for silicon device fabrication. <i>Molecular Simulation</i> , 2005, 31, 505-515.	0.9	50
12	Phosphine adsorption and dissociation on the Si(001) surface: An ab initio survey of structures. <i>Physical Review B</i> , 2005, 72, .	1.1	44
13	STM characterization of the Si-P heterodimer. <i>Physical Review B</i> , 2004, 69, .	1.1	40
14	Water on silicon (001): C defects and initial steps of surface oxidation. <i>Physical Review B</i> , 2008, 77, .	1.1	36
15	Reaction paths of phosphine dissociation on silicon (001). <i>Journal of Chemical Physics</i> , 2016, 144, 014705.	1.2	36
16	Atomic-Scale Patterning of Arsenic in Silicon by Scanning Tunneling Microscopy. <i>ACS Nano</i> , 2020, 14, 3316-3327.	7.3	36
17	Imaging charged defects on clean Si(100)-(2 \times 1) with scanning tunneling microscopy. <i>Journal of Applied Physics</i> , 2002, 92, 820-824.	1.1	35
18	Valence Surface Electronic States on Ge(001). <i>Physical Review Letters</i> , 2008, 100, 246807.	2.9	34

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19	Phosphine Dissociation and Diffusion on Si(001) Observed at the Atomic Scale. <i>Journal of Physical Chemistry B</i> , 2006, 110, 3173-3179.	1.2	28
20	Single hydrogen atoms on the Si(001) surface. <i>Physical Review B</i> , 2007, 76, .	1.1	28
21	Investigating individual arsenic dopant atoms in silicon using low-temperature scanning tunnelling microscopy. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 012001.	0.7	28
22	Organic Bonding to Silicon via a Carbonyl Group: A New Insights from Atomic-Scale Images. <i>Journal of the American Chemical Society</i> , 2007, 129, 11402-11407.	6.6	26
23	Split-off dimer defects on the Si(001) 2×1 surface. <i>Physical Review B</i> , 2004, 69, .	1.1	25
24	Towards the atomic-scale fabrication of a silicon-based solid state quantum computer. <i>Surface Science</i> , 2003, 532-535, 1209-1218.	0.8	23
25	Mosquito repellents for the traveller: does picaridin provide longer protection than DEET?. <i>Journal of Travel Medicine</i> , 2018, 25, S10-S15.	1.4	23
26	Phosphorus and hydrogen atoms on the (001) surface of silicon: A comparative scanning tunnelling microscopy study of surface species with a single dangling bond. <i>Surface Science</i> , 2006, 600, 318-324.	0.8	20
27	Acetone on silicon (001): amphiphilic molecule meets amphiphilic surface. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 2747.	1.3	20
28	Guided Self-Assembly of Metal Atoms on Silicon Using Organic-Molecule Templating. <i>Journal of the American Chemical Society</i> , 2012, 134, 15312-15317.	6.6	17
29	Interface and nanostructure evolution of cobalt germanides on Ge(001). <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	17
30	Phenyl Attachment to Si(001) via STM Manipulation of Acetophenone. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5736-5741.	1.5	16
31	Scanning tunneling microscopy imaging of charged defects on clean Si(100)-(2×1). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2003, 21, 1506-1509.	0.9	14
32	Importance of charging in atomic resolution scanning tunneling microscopy: Study of a single phosphorus atom in a Si(001) surface. <i>Physical Review B</i> , 2006, 74, .	1.1	14
33	Site-Dependent Ambipolar Charge States Induced by Group V Atoms in a Silicon Surface. <i>ACS Nano</i> , 2012, 6, 10456-10462.	7.3	14
34	Energetics of single- and double-layer steps on the Si(001) 2×1 surface calculated using the extended Brenner empirical potential. <i>Physical Review B</i> , 2000, 62, 10199-10206.	1.1	12
35	Observation of substitutional and interstitial phosphorus on clean Si(100) 2×1 with scanning tunneling microscopy. <i>Physical Review B</i> , 2005, 72, .	1.1	11
36	Interaction of acetone with the Si(001) surface. <i>Surface Science</i> , 2008, 602, 3484-3498.	0.8	11

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37	Radny et al. Reply. Physical Review Letters, 2009, 103, .	2.9	11
38	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
39	Dissociation of CH ₃ OH as a Driving Force for Methoxyacetophenone Adsorption on Si(001). Journal of Physical Chemistry C, 2019, 123, 22239-22249.	1.5	11
40	Electronic effects of single H atoms on Ge(001) revisited. Journal of Chemical Physics, 2010, 133, 014703.	1.2	10
41	Manipulating the orientation of an organic adsorbate on silicon: a NEXAFS study of acetophenone on Si(001). Journal of Physics Condensed Matter, 2015, 27, 054002.	0.7	10
42	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
43	Charge Density Waves in Electron-Doped Molybdenum Disulfide. Nano Letters, 2021, 21, 5516-5521.	4.5	10
44	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
45	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
46	Single P and As dopants in the Si(001) surface. Journal of Chemical Physics, 2007, 127, 184706.	1.2	8
47	Carbonyl mediated attachment to silicon: Acetaldehyde on Si(001). Journal of Chemical Physics, 2009, 131, 104707.	1.2	8
48	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
49	Imaging of buried phosphorus nanostructures in silicon using scanning tunneling microscopy. Applied Physics Letters, 2014, 104, .	1.5	8
50	Initial growth of Ba on Ge(001) studied with STM. An STM and DFT study. Physical Review B, 2015, 91, .		
51	Ba termination of Ge(001) studied with STM. Nanotechnology, 2015, 26, 155701.	1.3	7
52	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
53	Towards hybrid silicon-organic molecular electronics: The stability of acetone on the Si(001) surface. Surface Science, 2007, 601, 5757-5761.	0.8	6
54	Electronic effects induced by single hydrogen atoms on the Ge(001) surface. Journal of Chemical Physics, 2008, 128, 244707.	1.2	6

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55	Acetic acid on silicon (001): An exercise in chemical analogy. <i>Physical Review B</i> , 2011, 84, .	1.1	6
56	Model system for controlling strain in silicon at the atomic scale. <i>Physical Review B</i> , 2011, 84, .	1.1	6
57	Magnetic anisotropy of single Mn acceptors in GaAs in an external magnetic field. <i>Physical Review B</i> , 2013, 88, .	1.1	5
58	Two- to three-dimensional crossover in a dense electron liquid in silicon. <i>Physical Review B</i> , 2018, 97, .	1.1	5
59	Atomic-scale observation and control of the reaction of phosphine with silicon. <i>E-Journal of Surface Science and Nanotechnology</i> , 2006, 4, 609-613.	0.1	5
60	Substitutional Tin Acceptor States in Black Phosphorus. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22883-22889.	1.5	5
61	Dimer pinning and the assignment of semiconductor adsorbate surface structures. <i>Journal of Chemical Physics</i> , 2011, 134, 064709.	1.2	4
62	Water-Induced, Spin-Dependent Defects on the Silicon (001) Surface. <i>Journal of Physical Chemistry C</i> , 2015, 119, 11612-11618.	1.5	4
63	Orientation and stability of a bi-functional aromatic organic molecular adsorbate on silicon. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27290-27299.	1.3	4
64	The formation of a Sn monolayer on Ge(1 0 0) studied at the atomic scale. <i>Applied Surface Science</i> , 2021, 561, 149961.	3.1	3
65	Challenges in Surface Science for a P-in-Si Quantum Computer – Phosphine Adsorption/Incorporation and Epitaxial Si Encapsulation. <i>Surface Review and Letters</i> , 2003, 10, 415-423.	0.5	2
66	Towards the Routine Fabrication of P in Si Nanostructures: Understanding P Precursor Molecules on Si(001). <i>Materials Research Society Symposia Proceedings</i> , 2005, 864, 541.	0.1	2
67	Comment on “Transformation of C-type defects on surface at room temperature STM/STS study [Surf. Sci. 602 (2008) 2835]”. <i>Surface Science</i> , 2010, 604, 235-236.	0.8	2
68	Adsorption and Dissociation of a Bicyclic Tertiary Diamine, Triethylenediamine, on a Si(100)-2 × 1 Surface. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28672-28681.	1.5	2
69	Higher order reconstructions of the Ge(001) surface induced by a Ba layer. <i>Applied Surface Science</i> , 2018, 435, 438-443.	3.1	2
70	Atomically precise silicon device fabrication. , 2007, , .		1
71	Determination of the preferred reaction pathway of acetophenone on Si(001) using photoelectron diffraction. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 214002.	0.7	1
72	<title>Nanoscale phosphorous atom arrays created using STM for the fabricaton of a silicon-based quantum computer</title>. , 2001, , .		0

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73	The atomic fabrication of a silicon based quantum computer. , 0, , .		0
74	Minimisation of P surface segregation during epitaxial silicon growth for the fabrication of a silicon-based quantum computer. , 0, , .		0
75	Acetone on Si(001) - an adsorption study for siliconbased molecular electronics. , 2006, , .		0
76	Preexposure Rabies Vaccination Schedule. Journal of Travel Medicine, 2012, 19, 136.1-136.	1.4	0
77	Organic molecules on inorganic surfaces. Journal of Physics Condensed Matter, 2015, 27, 050301.	0.7	0
78	Single dopants in semiconductors. Journal of Physics Condensed Matter, 2015, 27, 150301.	0.7	0
79	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