

# Andrew Fisher

## List of Publications by Year in descending order

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124  
papers

4,143  
citations

117625

34  
h-index

123424

61  
g-index

125  
all docs

125  
docs citations

125  
times ranked

3872  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron traps and their effect on the surface chemistry of TiO <sub>2</sub> (110). Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2391-2396.	7.1	264
2	Potential for spin-based information processing in a thin-film molecular semiconductor. Nature, 2013, 503, 504-508.	27.8	236
3	Adsorption and scanning-tunneling-microscope imaging of benzene on graphite and MoS <sub>2</sub> . Physical Review Letters, 1993, 70, 3263-3266.	7.8	136
4	Quantum Inelastic Conductance through Molecular Wires. Physical Review Letters, 1999, 83, 452-455.	7.8	134
5	Surface Relaxations, Current Enhancements, and Absolute Distances in High Resolution Scanning Tunneling Microscopy. Physical Review Letters, 2001, 87, 236104.	7.8	134
6	Molecular Thin Films: A New Type of Magnetic Switch. Advanced Materials, 2007, 19, 3618-3622.	21.0	133
7	Optically driven silicon-based quantum gates with potential for high-temperature operation. Journal of Physics Condensed Matter, 2003, 15, L447-L451.	1.8	125
8	Coherent electron-phonon coupling and polaronlike transport in molecular wires. Physical Review B, 2001, 63, .	3.2	113
9	Hydrocarbon adsorption on Si(001): when does the Si dimer bond break?. Surface Science, 1997, 374, 298-305.	1.9	97
10	Formation of molecular hydrogen on a graphite surface via an Eley-Rideal mechanism. Chemical Physics Letters, 2000, 319, 303-308.	2.6	97
11	Adsorption of benzene on Si(100)-(2x1): Adsorption energies and STM image analysis by ab initio methods. Physical Review B, 2001, 63, .	3.2	91
12	Structure of the self-trapped exciton in quartz. Physical Review Letters, 1990, 64, 2667-2670.	7.8	86
13	Beyond Ehrenfest: correlated non-adiabatic molecular dynamics. Journal of Physics Condensed Matter, 2004, 16, 8251-8266.	1.8	86
14	Time-Dependent Quantum Mechanical Calculations on the Formation of Molecular Hydrogen on a Graphite Surface via an Eley-Rideal Mechanism. Journal of Physical Chemistry A, 2001, 105, 2173-2182.	2.5	84
15	Power dissipation in nanoscale conductors: classical, semi-classical and quantum dynamics. Journal of Physics Condensed Matter, 2004, 16, 3609-3622.	1.8	79
16	The transfer of energy between electrons and ions in solids. Reports on Progress in Physics, 2006, 69, 1195-1234.	20.1	77
17	Describing mixed spin-space entanglement of pure states of indistinguishable particles using an occupation-number basis. Physical Review A, 2002, 66, .	2.5	76
18	High-temperature antiferromagnetism in molecular semiconductor thin films and nanostructures. Nature Communications, 2014, 5, 3079.	12.8	76

#	ARTICLE	IF	CITATIONS
19	Magnetotransport and Fermi-surface topology of [bis(ethylenedithio)tetrathiafulvalene] <sub>2</sub> KHg(SCN) <sub>4</sub> . Physical Review B, 1992, 45, 13904-13912.	3.2	72
20	STM experiment and atomistic modelling hand in hand: individual molecules on semiconductor surfaces. Surface Science Reports, 1999, 33, 1-81.	7.2	71
21	Signature of a Chemical Bond in the Conductance between Two Metal Surfaces. Physical Review Letters, 2003, 91, 036803.	7.8	70
22	Correlated electron-ion dynamics: the excitation of atomic motion by energetic electrons. Journal of Physics Condensed Matter, 2005, 17, 4793-4812.	1.8	57
23	Tunable magnetoresistance in an asymmetrically coupled single-molecule junction. Nature Nanotechnology, 2015, 10, 259-263.	31.5	56
24	Theory of defects in conducting polymers. I. Theoretical principles and simple applications. Journal of Physics Condensed Matter, 1991, 3, 3879-3903.	1.8	53
25	Quantum communication in spin systems with long-range interactions. Physical Review A, 2006, 74, .	2.5	53
26	A multiconfigurational time-dependent Hartree-Fock method for excited electronic states. I. General formalism and application to open-shell states. Journal of Chemical Physics, 2011, 134, 244101.	3.0	48
27	Influence of the tip-induced electric field on the STM contrast of chemisorbed C <sub>2</sub> H <sub>4</sub> on the Si(001) surface. Physical Review B, 1997, 55, 10081-10093.	3.2	47
28	Ultralong Copper Phthalocyanine Nanowires with New Crystal Structure and Broad Optical Absorption. ACS Nano, 2010, 4, 3921-3926.	14.6	47
29	Long-lived spin entanglement induced by a spatially correlated thermal bath. Physical Review A, 2009, 80, .	2.5	43
30	Nonperturbative evaluation of STM tunneling probabilities from ab initio calculations. Physical Review B, 1997, 56, 12469-12481.	3.2	42
31	Adsorption sites and STM images of C <sub>2</sub> H <sub>2</sub> on Si(100): a first-principles study. Surface Science, 2001, 475, 83-88.	1.9	38
32	Structure-dependent exchange in the organic magnets Cu(II)Pc and Mn(II)Pc. Physical Review B, 2008, 77, .	3.2	38
33	Scanning Tunneling Microscopy Contrast Mechanisms for $\text{TiO}_2$ . Physical Review Letters, 2012, 109, 156105.	7.8	38
34	Understanding electron flow in conducting polymer films: injection, mobility, recombination and mesostructure. Journal of Physics Condensed Matter, 2002, 14, 9877-9898.	1.8	36
35	Electronic structure and STM images of self-assembled styrene lines on a Si(100) surface. Chemical Physics Letters, 2002, 365, 129-134.	2.6	34
36	Theory of the structure of the self-trapped exciton in quartz. Journal of Physics Condensed Matter, 1990, 2, 6707-6720.	1.8	33

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37	Organic ferromagnetism in the nitronyl nitroxides p-NPNN and 3-QNNN: MUSR, EPR and a.c. susceptibility studies. <i>Synthetic Metals</i> , 1993, 61, 171-175.	3.9	33
38	Path-integral simulations of zero-point effects for implanted muons in benzene. <i>Chemical Physics Letters</i> , 1995, 242, 1-6.	2.6	33
39	Potential dependence of polaron and bipolaron densities in conducting polymers: theoretical description beyond the Nernst equations. <i>Chemical Physics</i> , 1998, 227, 219-241.	1.9	33
40	Hofer and Fisher Reply:. <i>Physical Review Letters</i> , 2006, 96, .	7.8	33
41	Modelling non-adiabatic processes using correlated electron-ion dynamics. <i>European Physical Journal B</i> , 2010, 77, 305-329.	1.5	33
42	Polarons and solitons. <i>Journal of Physics Condensed Matter</i> , 1989, 1, 5567-5593.	1.8	32
43	Open-boundary Ehrenfest molecular dynamics: towards a model of current induced heating in nanowires. <i>Journal of Physics Condensed Matter</i> , 2004, 16, L65-L72.	1.8	32
44	Sub-molecular modulation of a 4f driven Kondo resonance by surface-induced asymmetry. <i>Nature Communications</i> , 2016, 7, 12785.	12.8	32
45	Electronic structure and exchange interactions in cobalt-phthalocyanine chains. <i>Physical Review B</i> , 2013, 88, .	3.2	31
46	Quantum oscillations and negative magnetoresistance in the organic metal $\hat{I}^2\hat{a}\hat{e}^{\text{TM}}\hat{a}\hat{e}^{\text{TM}}$ (BEDT-TTF) $2\text{AuBr}_2$ . <i>Physical Review Letters</i> , 1988, 61, 2721-2724.	7.8	29
47	Separation-dependent localization in a two-impurity spin-boson model. <i>Physical Review B</i> , 2010, 81, .	3.2	28
48	Topological phases of a dimerized Fermi-Hubbard model for semiconductor nano-lattices. <i>Npj Quantum Information</i> , 2020, 6, .	6.7	27
49	Vibrational inelastic scattering effects in molecular electronics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 8826-8831.	7.1	26
50	Bifurcations and the transition to chaos in the resonant-tunneling diode. <i>Physical Review B</i> , 1997, 56, 3913-3921.	3.2	25
51	Spin-Based Diagnostic of Nanostructure in Copper Phthalocyanine-C <sub>60</sub> Solar Cell Blends. <i>ACS Nano</i> , 2012, 6, 10808-10815.	14.6	24
52	Benzene on silicon: combining STM experiments with first principles studies. <i>Surface Science</i> , 2001, 482-485, 1181-1185.	1.9	23
53	Theory of defects in conducting polymers. II. Application to polyacetylene. <i>Journal of Physics Condensed Matter</i> , 1991, 3, 3905-3920.	1.8	22
54	Tuning in on single molecular states: adsorption sites and STM images of maleic anhydride on Si(100). <i>Chemical Physics Letters</i> , 2002, 355, 347-354.	2.6	22

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55	Theoretical modeling of the electronic structure and exchange interactions in a Cu(II)Pc one-dimensional chain. <i>Physical Review B</i> , 2011, 84, .	3.2	22
56	Coherent electron injection and transport in molecular wires: inelastic tunneling and electron-phonon interactions. <i>Chemical Physics</i> , 2002, 281, 279-292.	1.9	21
57	Robust nonadiabatic molecular dynamics for metals and insulators. <i>Journal of Chemical Physics</i> , 2007, 127, 214104.	3.0	21
58	Surface Coverage Effects on the Formation of Molecular Hydrogen on a Graphite Surface via an Eley-Rideal Mechanism. <i>Journal of Physical Chemistry A</i> , 2003, 107, 10862-10871.	2.5	20
59	Hydroxyl vacancies in single-walled aluminosilicate and aluminogermanate nanotubes. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 195301.	1.8	20
60	Extended Hubbard model for mesoscopic transport in donor arrays in silicon. <i>Physical Review B</i> , 2017, 96, .	3.2	20
61	Observational Indicators of Formation Excitation of H <sub>2</sub> . <i>Astrophysics and Space Science</i> , 2003, 288, 377-389.	1.4	19
62	Tip-induced surface polarization: a new mechanism for contrast in the scanning tunnelling microscope. <i>Surface Science</i> , 1997, 380, L479-L484.	1.9	18
63	Small polaron formation in dangling-bond wires on the Si(001) surface. <i>Physical Review B</i> , 2000, 63, .	3.2	18
64	Quantum computing in the solid state: the challenge of decoherence. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 1441-1450.	3.4	18
65	A multiconfigurational time-dependent Hartree-Fock method for excited electronic states. II. Coulomb interaction effects in single conjugated polymer chains. <i>Journal of Chemical Physics</i> , 2011, 134, 244102.	3.0	18
66	Mechanisms for electron transport in atomic-scale one-dimensional wires: Soliton and polaron effects. <i>Europhysics Letters</i> , 2002, 57, 885-891.	2.0	17
67	Magnetic properties of copper hexadecaphthalocyanine (F16CuPc) thin films and powders. <i>Journal of Applied Physics</i> , 2013, 113, 013914.	2.5	17
68	Series of (n-2)Si-rich reconstructions of $\beta$ -SiC(001): A prospective atomic wire. <i>Physical Review B</i> , 2001, 63, .	3.2	16
69	Avoiding entanglement loss when two-qubit quantum gates are controlled by electronic excitation. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 2757-2772.	1.8	15
70	Switching and propagation of magnetoplasmon polaritons in magnetic slot waveguides and cavities. <i>Physical Review B</i> , 2013, 88, .	3.2	15
71	Methods of embedding for defect and surface problems. <i>Journal of Physics C: Solid State Physics</i> , 1988, 21, 3229-3249.	1.5	14
72	$^{51}\text{V}$ SR studies of magnetism in the organic systems p-NPNN and 3-QNNN. <i>Synthetic Metals</i> , 1995, 71, 1823-1824.	3.9	14

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73	Electronic structure and scanning tunnelling microscope images of missing-atom defects on and surfaces. <i>Journal of Physics Condensed Matter</i> , 1997, 9, 3671-3686.	1.8	14
74	Simulation of spin-resolved scanning tunneling microscopy: influence of the magnetization of surface and tip. <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 267, 139-151.	2.3	13
75	A matrix method for treating the coupling between an electron and a surface plasmon: a dynamical image potential in model tunnelling junctions. <i>Journal of Physics Condensed Matter</i> , 1998, 10, 3697-3718.	1.8	12
76	Soliton effects in dangling-bond wires on Si(001). <i>Physical Review B</i> , 2003, 68, .	3.2	12
77	Quantum Projection in an Ising Spin Liquid. <i>Physical Review Letters</i> , 2007, 99, 057203.	7.8	12
78	Correlated electron-ion dynamics in metallic systems. <i>Computational Materials Science</i> , 2008, 44, 16-20.	3.0	12
79	Modeling the $(4\text{\AA}-2)$ reconstruction of $\sqrt{2}\times\sqrt{2}$ SiC(001). <i>Physical Review B</i> , 2000, 62, 6904-6907.	3.2	11
80	Tip effects in scanning tunneling microscopy of atomic-scale magnetic structures. <i>Surface Science</i> , 2002, 498, L65-L70.	1.9	11
81	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -orbital nanomagnetism in an organic chain magnet. <i>Physical Review B</i> , 2013, 88, .	3.2	11
82	Does Luttinger liquid behaviour survive in an atomic wire on a surface?. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 5035-5046.	1.8	10
83	Optical response from terahertz to visible light of electronuclear transitions in $\text{LiYF}_4:\text{Ho}^{3+}$ . <i>Physical Review B</i> , 2016, 94, .	3.2	10
84	Exact location of dopants below the Si(001):H surface from scanning tunneling microscopy and density functional theory. <i>Physical Review B</i> , 2017, 95, .	3.2	10
85	A comparison of techniques for embedding defect cluster calculations. <i>Theoretica Chimica Acta</i> , 1987, 72, 319-324.	0.8	9
86	A modified form for the real-space embedding potential. <i>Journal of Physics Condensed Matter</i> , 1990, 2, 6079-6082.	1.8	9
87	Title is missing!. <i>Journal of Physics Condensed Matter</i> , 1991, 3, 9823-9829.	1.8	9
88	Analog of Rabi oscillations in resonant electron-ion systems. <i>Journal of Chemical Physics</i> , 2011, 134, 194105.	3.0	8
89	Suitability of chromium phthalocyanines to test Haldane's conjecture: First-principles calculations. <i>Physical Review B</i> , 2013, 88, .	3.2	8
90	Potential for a novel $\frac{1}{4}$ SR experiment – the results of an ab initio study. <i>Chemical Physics Letters</i> , 1996, 259, 271-275.	2.6	7

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91	Dynamical effective potential for tunneling: an exact matrix method and a path-integral technique. Applied Physics A: Materials Science and Processing, 1998, 66, S919-S923.	2.3	7
92	Transmission through Peierls distorted one-dimensional atomic wires: quantum coherent electron-phonon coupling. Applied Surface Science, 2000, 162-163, 613-619.	6.1	7
93	Exchange between deep donors in semiconductors: A quantum defect approach. Physical Review B, 2008, 77, .	3.2	7
94	Ab initio study of muons in ethanal. Journal of Physics Condensed Matter, 1997, 9, 3241-3257.	1.8	6
95	Diffusion of a polaron in dangling bond wires on Si(001). Journal of Physics Condensed Matter, 2002, 14, L749-L755.	1.8	6
96	Determining surface magnetization and local magnetic moments with atomic scale resolution. Surface Science, 2002, 515, L487-L492.	1.9	6
97	Modeling of the $\hat{1}^2$ -SiC(001) ( $3\hat{A}$ -2) surface reconstruction. Applied Surface Science, 2000, 162-163, 94-99.	6.1	5
98	Contribution of spin pairs to the magnetic response in a dilute dipolar ferromagnet. Physical Review B, 2012, 86, .	3.2	5
99	Two- to three-dimensional crossover in a dense electron liquid in silicon. Physical Review B, 2018, 97, .	3.2	5
100	Linear combination of atomic orbitals model for deterministically placed acceptor arrays in silicon. Physical Review B, 2020, 101, .	3.2	5
101	Theoretical studies of the blue luminescence in $\hat{1}\pm$ -quartz. Journal of the Chemical Society, Faraday Transactions 2, 1989, 85, 467-469.	1.1	4
102	Defect electronic states in beta -carotene and lower homologues. Journal of Physics Condensed Matter, 1993, 5, 7049-7062.	1.8	4
103	Ab initio studies of magnetism in the organic radical p-NPNN. Journal of Physics Condensed Matter, 1997, 9, 3635-3645.	1.8	4
104	Studies of implanted muons in organic radicals. Journal of Physics Condensed Matter, 1998, 10, 10701-10713.	1.8	4
105	Excited states of defect linear arrays in silicon: A first-principles study based on hydrogen cluster analogs. Physical Review B, 2018, 97, .	3.2	4
106	Rydberg entangling gates in silicon. Physical Review Research, 2021, 3, .	3.6	4
107	Theoretical studies of implanted muons in organic magnets. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 37, 247-250.	3.5	3
108	Charge injection in molecular wires grafted on metallic surfaces: electron-lattice interaction. European Physical Journal D, 2003, 24, 409-412.	1.3	3

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109	Configuration-space location of the entanglement between two subsystems. <i>Physical Review A</i> , 2007, 75, .	2.5	3
110	Excited states of a phosphorus pair in silicon: Combining valley-orbital interaction and electron-electron interactions. <i>Physical Review B</i> , 2021, 104, .	3.2	3
111	The embedding potential for an interacting system. <i>Journal of Physics Condensed Matter</i> , 1989, 1, 3883-3895.	1.8	2
112	Theoretical studies of processes involving implanted muons. <i>Current Opinion in Solid State and Materials Science</i> , 1996, 1, 841-845.	11.5	2
113	The influence of an electric field on the electronic structure of a surface containing defects: an embedding-potential approach. <i>Journal of Physics Condensed Matter</i> , 1997, 9, 1793-1811.	1.8	2
114	Atom extraction from an MoS <sub>2</sub> surface with a scanning tunnelling microscope: an ab initio study. <i>Applied Physics A: Materials Science and Processing</i> , 1998, 66, S741-S744.	2.3	2
115	Half-filled orbital and unconventional geometry of a common dopant in Si(001). <i>Physical Review B</i> , 2013, 88, .	3.2	2
116	Controlling electronic access to the spin excitations of a single molecule in a tunnel junction. <i>Nanoscale</i> , 2017, 9, 4053-4057.	5.6	2
117	Optically controlled entangling gates in randomly doped silicon. <i>Physical Review B</i> , 2019, 100, .	3.2	2
118	Ab initio study of STM-induced vacancy formation on the surface. <i>Journal of Physics Condensed Matter</i> , 1998, 10, 4533-4551.	1.8	1
119	Entanglement in general two-mode continuous-variable states: Local approach and mapping to a two-qubit system. <i>Physical Review A</i> , 2007, 76, .	2.5	1
120	Theoretical modeling of the electronic structure and exchange interactions in Cu(II)Pc. <i>Journal of Physics: Conference Series</i> , 2012, 391, 012119.	0.4	1
121	Multihole models for deterministically placed acceptor arrays in silicon. <i>Physical Review B</i> , 2021, 104, .	3.2	1
122	Adsorption and STM imaging of organic molecules from first principles. , 1993, , 185-197.		1
123	Local entanglement of multidimensional continuous-variable systems. <i>Physical Review A</i> , 2008, 78, .	2.5	0
124	Cavity-enhanced magneto-plasmonic effects. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0