A Zettl

List of Publications by Year
in descending order

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133 papers	34,747 citations	12330 69 h-index	18647 119 g-index
134 all docs	134 docs citations	134 times ranked	28795 citing authors

#	Article	IF	Citations
1	High-pressure chemistry of hydrocarbons relevant to planetary interiors and inertial confinement fusion. Physics of Plasmas, 2018, 25, .	1.9	24
2	Ultraconfined Plasmonic Hotspots Inside Graphene Nanobubbles. Nano Letters, 2016, 16, 7842-7848.	9.1	40
3	High-performance transition metalâ€“doped Pt ₃ Ni octahedra for oxygen reduction reaction. Science, 2015, 348, 1230-1234.	12.6	1,623
4	Low power microheater-based combustible gas sensor with graphene aerogel catalyst support. , 2015, , .		2
5	3D structure of individual nanocrystals in solution by electron microscopy. Science, 2015, 349, 290-295.	12.6	238
6	Controlled growth of a line defect in graphene and implications for gate-tunable valley filtering. Physical Review B, 2014, 89, .	3.2	117
7	Photoinduced doping in heterostructures of graphene and boron nitride. Nature Nanotechnology, 2014, 9, 348-352.	31.5	287
8	Atomically perfect torn graphene edges and their reversible reconstruction. Nature Communications, 2013, 4, 2723.	12.8	110
9	Measurement of the intrinsic strength of crystalline and polycrystalline graphene. Nature Communications, 2013, 4, .	12.8	246
10	Charge-Carrier Screening in Single-Layer Graphene. Physical Review Letters, 2013, 110, 146802.	7.8	58
11	Effect of gadolinium adatoms on the transport properties of graphene. Physical Review B, 2012, 86, .	3.2	16
12	Ripping Graphene: Preferred Directions. Nano Letters, 2012, 12, 293-297.	9.1	200
13	Probing the Out-of-Plane Distortion of Single Point Defects in Atomically Thin Hexagonal Boron Nitride at the Picometer Scale. Physical Review Letters, 2011, 106, 126102.	7.8	62
14	Boron nitride substrates for high mobility chemical vapor deposited graphene. Applied Physics Letters, 2011, 98, .	3.3	339
15	Grain Boundary Mapping in Polycrystalline Graphene. ACS Nano, 2011, 5, 2142-2146.	14.6	566
16	A Carbon Nanotube-based NEMS Parametric Amplifier for Enhanced Radio Wave Detection and Electronic Signal Amplification. Journal of Physics: Conference Series, 2011, 302, 012001.	0.4	6
17	Multiply folded graphene. Physical Review B, 2011, 83, .	3.2	269
18	Vacancy growth and migration dynamics in atomically thin hexagonal boron nitride under electron beam irradiation. Physica Status Solidi - Rapid Research Letters, 2011, 5, 295-297.	2.4	24

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19	Highâ€temperature stability of suspended singleâ€layer graphene. Physica Status Solidi - Rapid Research Letters, 2010, 4, 302-304.	2.4	86
20	Excitons at the B K edge of boron nitride nanotubes probed by x-ray absorption spectroscopy. Journal of Physics Condensed Matter, 2010, 22, 295301.	1.8	3
21	A direct transfer of layer-area graphene. Applied Physics Letters, 2010, 96, .	3.3	335
22	Transfer-Free Batch Fabrication of Large-Area Suspended Graphene Membranes. ACS Nano, 2010, 4, 4762-4768.	14.6	103
23	Direct measurement of the built-in potential in a nanoscale heterostructure. Physical Review B, 2010, 82, .	3.2	7
24	Instability of two-dimensional graphene: Breaking<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mi>s</mml:mi><mml:mi>p</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:m with soft x rays. Physical Review B, 2009, 80, .	3.2	44
25	PacilÃ©etÂal.Reply:. Physical Review Letters, 2009, 102, .	7.8	17
26	Currentâ€“phase relation in graphene and application to a superconducting quantum interference device. Physica Status Solidi (B): Basic Research, 2009, 246, 2568-2571.	1.5	9
27	Graphene at the Edge: Stability and Dynamics. Science, 2009, 323, 1705-1708.	12.6	1,153
28	Atomically thin hexagonal boron nitride probed by ultrahigh-resolution transmission electron microscopy. Physical Review B, 2009, 80, .	3.2	456
29	Tuning Nanoelectromechanical Resonators with Mass Migration. Nano Letters, 2009, 9, 3209-3213.	9.1	28
30	Nanomechanical radio transmitter. Physica Status Solidi (B): Basic Research, 2008, 245, 2323-2325.	1.5	43
31	Imaging and dynamics of light atoms and molecules on graphene. Nature, 2008, 454, 319-322.	27.8	475
32	An atomic-resolution nanomechanical mass sensor. Nature Nanotechnology, 2008, 3, 533-537.	31.5	944
33	Chapter 1 Nanotubes: an experimental overview. Contemporary Concepts of Condensed Matter Science, 2008, 3, 1-27.	0.5	2
34	Direct Imaging of Lattice Atoms and Topological Defects in Graphene Membranes. Nano Letters, 2008, 8, 3582-3586.	9.1	1,090
35	The two-dimensional phase of boron nitride: Few-atomic-layer sheets and suspended membranes. Applied Physics Letters, 2008, 92, .	3.3	895
36	Hydrocarbon lithography on graphene membranes. Applied Physics Letters, 2008, 92, .	3.3	252

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37	Breakdown of Fourierâ€™s Law in Nanotube Thermal Conductors. Physical Review Letters, 2008, 101, 075903.	7.8	425
38	A proposed measurement of controlled defect induction and annealing in a carbon nanotube. , 2008, , .		0
39	Soldering to a single atomic layer. Applied Physics Letters, 2007, 91, .	3.3	52
40	Nanotube Phonon Waveguide. Physical Review Letters, 2007, 99, 045901.	7.8	99
41	Tunable thermal links. Applied Physics Letters, 2007, 90, 193114.	3.3	30
42	Nanotube Radio. Nano Letters, 2007, 7, 3508-3511.	9.1	366
43	Buckling and kinking force measurements on individual multiwalled carbon nanotubes. Physical Review B, 2007, 76, .	3.2	52
44	Highâ€Field Scanning Probe Lithography in Hexadecane: Transitioning from Field Induced Oxidation to Solvent Decomposition through Surface Modification. Advanced Materials, 2007, 19, 3570-3573.	21.0	25
45	On the roughness of single- and bi-layer graphene membranes. Solid State Communications, 2007, 143, 101-109.	1.9	530
46	Amine-functionalized boron nitride nanotubes. Solid State Communications, 2007, 142, 643-646.	1.9	139
47	A new look at thermal properties of nanotubes. Physica Status Solidi (B): Basic Research, 2007, 244, 4181-4183.	1.5	21
48	Extreme thermal stability of carbon nanotubes. Physica Status Solidi (B): Basic Research, 2007, 244, 3960-3963.	1.5	17
49	Solid-State Thermal Rectifier. Science, 2006, 314, 1121-1124.	12.6	1,043
50	Controlled placement of highly aligned carbon nanotubes for the manufacture of arrays of nanoscale torsional actuators. Nanotechnology, 2006, 17, 434-438.	2.6	38
51	Ultrahigh Frequency Nanotube Resonators. Physical Review Letters, 2006, 97, 087203.	7.8	298
52	Tunable Nanoresonators Constructed from Telescoping Nanotubes. Physical Review Letters, 2006, 96, 215503.	7.8	84
53	Shrinking a Carbon Nanotube. Nano Letters, 2006, 6, 2718-2722.	9.1	149
54	Specific Heats of Mg(B1â^'xCx)2: Two-Gap Superconductors. AIP Conference Proceedings, 2006, , .	0.4	1

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55	Interlayer Forces and Ultralow Sliding Friction in Multiwalled Carbon Nanotubes. Physical Review Letters, 2006, 97, 025501.	7.8	231
56	Isotope Effect on the Thermal Conductivity of Boron Nitride Nanotubes. Physical Review Letters, 2006, 97, 085901.	7.8	349
57	Thermal conductivity of Bâ€“Câ€“N and BN nanotubes. Applied Physics Letters, 2005, 86, 173102.	3.3	117
58	Precision cutting of nanotubes with a low-energy electron beam. Applied Physics Letters, 2005, 86, 053109.	3.3	143
59	Imaging the life story of nanotube devices. Applied Physics Letters, 2005, 87, 083103.	3.3	50
60	Current-controlled nanotube growth and zone refinement. Applied Physics Letters, 2005, 86, 173107.	3.3	34
61	Thermal conductivity of B-C-N and BN nanotubes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1883.	1.6	41
62	Length control and sharpening of atomic force microscope carbon nanotube tips assisted by an electron beam. Nanotechnology, 2005, 16, 2493-2496.	2.6	86
63	Nanocrystal-Powered Nanomotor. Nano Letters, 2005, 5, 1730-1733.	9.1	65
64	Electrical and Mechanical Properties of Nanotubes Determined Using In-situ TEM Probes. Nanoscience and Technology, 2005, , 273-306.	1.5	0
65	Engineering Nanomotor Components from Multi-Walled Carbon Nanotubes via Reactive Ion Etching. AIP Conference Proceedings, 2004, , .	0.4	4
66	Identifying Defects in Nanoscale Materials. Physical Review Letters, 2004, 93, 196803.	7.8	78
67	Localization and Nonlinear Resistance in Telescopically Extended Nanotubes. Physical Review Letters, 2004, 93, 086801.	7.8	100
68	Nanocrystal cleaving. Applied Physics Letters, 2004, 84, 2644-2645.	3.3	9
69	Electron Microscopy of the Operation of Nanoscale Devices. Materials Research Society Symposia Proceedings, 2004, 839, 143.	0.1	0
70	Carbon nanotubes as nanoscale mass conveyors. Nature, 2004, 428, 924-927.	27.8	291
71	Activated Boron Nitride Derived from Activated Carbon. Nano Letters, 2004, 4, 173-176.	9.1	96
72	Encapsulation of One-Dimensional Potassium Halide Crystals within BN Nanotubes. Nano Letters, 2004, 4, 1355-1357.	9.1	78

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73	Trapping and aligning carbon nanotubes via substrate geometry engineering. New Journal of Physics, 2004, 6, 15-15.	2.9	4
74	Raman Spectroscopy and Time-Resolved Photoluminescence of BN and BxCyNzNanotubes. Nano Letters, 2004, 4, 647-650.	9.1	194
75	Electrically Driven Vaporization Of Multiwall Carbon Nanotubes For Rotary Bearing Creation. AIP Conference Proceedings, 2004, , .	0.4	3
76	Coating Single-Walled Carbon Nanotubes with Tin Oxide. Nano Letters, 2003, 3, 681-683.	9.1	325
77	Simplified synthesis of double-wall carbon nanotubes. Solid State Communications, 2003, 126, 359-362.	1.9	41
78	Rotational actuators based on carbon nanotubes. Nature, 2003, 424, 408-410.	27.8	1,098
79	Properties of Boron Nitride Nanotubes. AIP Conference Proceedings, 2003, , .	0.4	36
80	GaN nanorods coated with pure BN. Applied Physics Letters, 2002, 81, 5051-5053.	3.3	65
81	Resistance of Telescoping Nanotubes. AIP Conference Proceedings, 2002, , .	0.4	3
82	Transformation of BxCyNz nanotubes to pure BN nanotubes. Applied Physics Letters, 2002, 81, 1110-1112.	3.3	179
83	An Efficient Route to Graphitic Carbon-Layer-Coated Gallium Nitride Nanorods. Advanced Materials, 2002, 14, 1560-1562.	21.0	38
84	Direct mechanical measurement of the tensile strength and elastic modulus of multiwalled carbon nanotubes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 334, 173-178.	5.6	951
85	Development of a Nanoindenter for In Situ Transmission Electron Microscopy. Microscopy and Microanalysis, 2001, 7, 507-517.	0.4	97
86	Electromechanical properties of multiwall carbon nanotubes. AIP Conference Proceedings, 2001, , .	0.4	5
87	Anisotropic electronic structure of orthorhombicRbC60:A high-field ESR investigation. Physical Review B, 2001, 63, .	3.2	4
88	Structure of boron nitride nanotubules. Applied Physics Letters, 2001, 78, 2772-2774.	3.3	71
89	Elastic Properties of Fullerenes. , 2001, , 163-171.		0
90	A simple method for the continuous production of carbon nanotubes. Chemical Physics Letters, 2000, 319, 457-459.	2.6	195

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91	Mass-production of boron nitride double-wall nanotubes and nanococoons. Chemical Physics Letters, 2000, 316, 211-216.	2.6	241
92	Random access of nanodevices. Solid State Communications, 2000, 113, 549-552.	1.9	9
93	Transport through crossed nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 6, 868-871.	2.7	33
94	Peeling and sharpening multiwall nanotubes. Nature, 2000, 406, 586-586.	27.8	164
95	Extreme Oxygen Sensitivity of Electronic Properties of Carbon Nanotubes. Science, 2000, 287, 1801-1804.	12.6	2,777
96	Sharpened nanotubes, nanobearings, and nanosprings. AIP Conference Proceedings, 2000, , .	0.4	7
97	Scanned Probe Microscopy of Electronic Transport in Carbon Nanotubes. Physical Review Letters, 2000, 84, 6082-6085.	7.8	547
98	Crossed Nanotube Junctions. Science, 2000, 288, 494-497.	12.6	1,135
99	Is the Intrinsic Thermoelectric Power of Carbon Nanotubes Positive?. Physical Review Letters, 2000, 85, 4361-4364.	7.8	222
100	1/f noise in carbon nanotubes. Applied Physics Letters, 2000, 76, 894-896.	3.3	213
101	Low-Friction Nanoscale Linear Bearing Realized from Multiwall Carbon Nanotubes. Science, 2000, 289, 602-604.	12.6	1,206
102	Distinct polymer chain orientations in. , 1999, , .		0
103	Manipulation of the transport properties of single-walled nanotubes by alkali intercalation and local charge transfer. , 1999, , .		0
104	Is the ground state of. , 1999, , .		2
105	Search for Superconductivity in Lithium. Journal of Low Temperature Physics, 1999, 114, 445-454.	1.4	19
106	Nonlinear transport and localization in single-walled carbon nanotubes. Synthetic Metals, 1999, 103, 2529-2532.	3.9	49
107	Thermal conductivity of single-walled carbon nanotubes. Physical Review B, 1999, 59, R2514-R2516.	3.2	1,042
108	Microscopic determination of the interlayer binding energy in graphite. Chemical Physics Letters, 1998, 286, 490-496.	2.6	358

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109	C36, a new carbon solid. Nature, 1998, 393, 771-774.	27.8	418
110	Electron diffraction study of single-wall carbon nanotubes. Solid State Communications, 1998, 105, 145-149.	1.9	41
111	Measurement of the elastic modulus of a multi-wall boron nitride nanotube. Solid State Communications, 1998, 105, 297-300.	1.9	546
112	Localization in single-walled carbon nanotubes. Solid State Communications, 1998, 109, 105-109.	1.9	46
113	Thermoelectric Power of Single-Walled Carbon Nanotubes. Physical Review Letters, 1998, 80, 1042-1045.	7.8	262
114	Nanoscale electronic devices on carbon nanotubes. Nanotechnology, 1998, 9, 153-157.	2.6	57
115	The first stable lower fullerene: C[sub 36]. , 1998, , .		1
116	Transport and localization in single-walled carbon nanotubes. , 1998, , .		0
117	Thermoelectric power and thermal conductivity of single-walled carbon nanotubes. , 1998, , .		0
118	Single-Electron Transport in Ropes of Carbon Nanotubes. Science, 1997, 275, 1922-1925.	12.6	1,278
119	Nanotube Nanodevice. Science, 1997, 278, 100-102.	12.6	869
120	Transport and structural properties of polymerized AC 60 (A = K, Rb) under zero and high pressure conditions. Applied Physics A: Materials Science and Processing, 1997, 64, 263-269.	2.3	8
121	A simple and robust electron beam source from carbon nanotubes. Applied Physics Letters, 1996, 69, 1969-1971.	3.3	358
122	Anisotropic electron-beam damage and the collapse of carbon nanotubes. Physical Review B, 1996, 54, 5927-5931.	3.2	147
123	Fully collapsed carbon nanotubes. Nature, 1995, 377, 135-138.	27.8	466
124	Synthesis ofBxCyNznanotubules. Physical Review B, 1995, 51, 11229-11232.	3.2	413
125	Boron Nitride Nanotubes. Science, 1995, 269, 966-967.	12.6	2,881
126	Optical measurements of the superconducting gap in single-crystal K3C60 and Rb3C60. Nature, 1994, 369, 541-543.	27.8	54

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127	Optical evidence of the weak coupling pairing mechanism in the superconductors K/sub 3/C/sub 60/ and Rb/sub 3/C/sub 60/. , 1994, , .		0
128	Making waves with electrons. Nature, 1993, 363, 496-497.	27.8	4
129	Three-dimensional fluctuation conductivity in superconducting single crystal K3C60 and Rb3C60. Nature, 1993, 361, 54-56.	27.8	73
130	Iodine intercalation of a high-temperature superconducting oxide. Nature, 1990, 348, 145-147.	27.8	175
131	Scanning tunnelling microscopy of charge density waves in 1Tâ€TaS₂. Journal of Microscopy, 1988, 152, 771-778.	1.8	7
132	Chaotic Response of Driven Charge Density Wave Systems. Molecular Crystals and Liquid Crystals, 1985, 121, 49-53.	0.8	0
133	Nanotube-based Molecular Motors. , 0, , .		0