David H Cobden

List of Publications by Year
in descending order

53 papers	19,811 citations	71102 41 h-index	175258 52 g-index
55 all docs	55 docs citations	55 times ranked	18209 citing authors

#	Article	IF	Citations
1	Layer-dependent ferromagnetism in a van der Waals crystal down to the monolayer limit. Nature, 2017, 546, 270-273.	27.8	3,824
2	Electrically tunable excitonic light-emitting diodes based on monolayer WSe2 pâ€“n junctions. Nature Nanotechnology, 2014, 9, 268-272.	31.5	1,434
3	Luttinger-liquid behaviour in carbon nanotubes. Nature, 1999, 397, 598-601.	27.8	1,396
4	Single-Electron Transport in Ropes of Carbon Nanotubes. Science, 1997, 275, 1922-1925.	12.6	1,278
5	Two-dimensional itinerant ferromagnetism in atomically thin Fe3GeTe2. Nature Materials, 2018, 17, 778-782.	27.5	995
6	Electrical control of 2D magnetism in bilayer CrI3. Nature Nanotechnology, 2018, 13, 544-548.	31.5	975
7	Lateral heterojunctions within monolayer MoSe2â€“WSe2 semiconductors. Nature Materials, 2014, 13, 1096-1101.	27.5	872
8	Giant tunneling magnetoresistance in spin-filter van der Waals heterostructures. Science, 2018, 360, 1214-1218.	12.6	871
9	Magnetic control of valley pseudospin in monolayer WSe2. Nature Physics, 2015, 11, 148-152.	16.7	720
10	Ferroelectric switching of a two-dimensional metal. Nature, 2018, 560, 336-339.	27.8	570
11	Electrical tuning of valley magnetic moment through symmetry control in bilayer MoS2. Nature Physics, 2013, 9, 149-153.	16.7	540
12	Edge conduction in monolayer WTe2. Nature Physics, 2017, 13, 677-682.	16.7	457
13	Disorder, Pseudospins, and Backscattering in Carbon Nanotubes. Physical Review Letters, 1999, 83, 5098-5101.	7.8	408
14	Measurement of a solid-state triple point at the metalâ€“insulator transition in VO2. Nature, 2013, 500, 431-434.	27.8	397
15	Vaporâ€“Solid Growth of High Optical Quality MoS₂ Monolayers with Near-Unity Valley Polarization. ACS Nano, 2013, 7, 2768-2772.	14.6	389
16	Ultrafast hot-carrier-dominated photocurrent in graphene. Nature Nanotechnology, 2012, 7, 114-118.	31.5	362
17	Switching 2D magnetic states via pressure tuning of layer stacking. Nature Materials, 2019, 18, 1298-1302.	27.5	358
18	Determination of band offsets, hybridization, and exciton binding in 2D semiconductor heterostructures. Science Advances, 2017, 3, e1601832.	10.3	293

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19	New aspects of the metalâ€“insulator transition in single-domain vanadium dioxide nanobeams. Nature Nanotechnology, 2009, 4, 420-424.	31.5	284
20	Metal Contacts on Physical Vapor Deposited Monolayer MoS₂. ACS Nano, 2013, 7, 11350-11357.	14.6	275
21	Ligand-field helical luminescence in a 2D ferromagnetic insulator. Nature Physics, 2018, 14, 277-281.	16.7	275
22	Gate-induced superconductivity in a monolayer topological insulator. Science, 2018, 362, 922-925.	12.6	259
23	Interlayer Exciton Optoelectronics in a 2D Heterostructure pâ€“n Junction. Nano Letters, 2017, 17, 638-643.	9.1	253
24	Atomically Thin CrCl₃: An In-Plane Layered Antiferromagnetic Insulator. Nano Letters, 2019, 19, 3993-3998.	9.1	240
25	Nano-optical Investigations of the Metalâ^'Insulator Phase Behavior of Individual VO₂ Microcrystals. Nano Letters, 2010, 10, 1574-1581.	9.1	230
26	Spin Splitting and Even-Odd Effects in Carbon Nanotubes. Physical Review Letters, 1998, 81, 681-684.	7.8	206
27	Electrically tunable correlated and topological states in twisted monolayerâ€“bilayer graphene. Nature Physics, 2021, 17, 374-380.	16.7	173
28	Shell Filling in Closed Single-Wall Carbon Nanotube Quantum Dots. Physical Review Letters, 2002, 89, 046803.	7.8	147
29	Visualizing electrostatic gating effects in two-dimensional heterostructures. Nature, 2019, 572, 220-223.	27.8	135
30	Inhomogeneity of the ultrafast insulator-to-metal transition dynamics of VO2. Nature Communications, 2015, 6, 6849.	12.8	134
31	Voltage Control of a van der Waals Spin-Filter Magnetic Tunnel Junction. Nano Letters, 2019, 19, 915-920.	9.1	129
32	Imaging quantum spin Hall edges in monolayer WTe ₂. Science Advances, 2019, 5, eaat8799.	10.3	113
33	Nanowires begin to shine. Nature, 2001, 409, 32-33.	27.8	92
34	Ultrafast Nanoimaging of the Photoinduced Phase Transition Dynamics in VO₂. Nano Letters, 2016, 16, 3029-3035.	9.1	84
35	Photoresponse of a strongly correlated material determined by scanning photocurrent microscopy. Nature Nanotechnology, 2012, 7, 723-727.	31.5	72
36	Fluctuations and Evidence for Charging in the Quantum Hall Effect. Physical Review Letters, 1999, 82, 4695-4698.	7.8	66

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37	Quantum dots in suspended single-wall carbon nanotubes. Applied Physics Letters, 2001, 79, 4216-4218.	3.3	66
38	Evidence for equilibrium exciton condensation in monolayer WTe2. Nature Physics, 2022, 18, 94-99.	16.7	55
39	Magnetic proximity and nonreciprocal current switching in a monolayer WTe2 helical edge. Nature Materials, 2020, 19, 503-507.	27.5	53
40	Vapor-transport growth of high optical quality WSe2 monolayers. APL Materials, 2014, 2, .	5.1	52
41	Single-Wall Carbon Nanotube Conducting Probe Tips. Journal of Physical Chemistry B, 2002, 106, 13102-13105.	2.6	48
42	Electric control of a canted-antiferromagnetic Chern insulator. Nature Communications, 2022, 13, 1668.	12.8	37
43	Many-body effects in nonlinear optical responses of 2D layered semiconductors. 2D Materials, 2017, 4, 025024.	4.4	35
44	Terahertz response of monolayer and few-layer WTe2 at the nanoscale. Nature Communications, 2021, 12, 5594.	12.8	29
45	Photo-Nernst current in graphene. Nature Physics, 2016, 12, 236-239.	16.7	27
46	Unraveling Strain Gradient Induced Electromechanical Coupling in Twisted Double Bilayer Graphene MoirÃ© Superlattices. Advanced Materials, 2021, 33, e2105879.	21.0	25
47	Tip-Modulation Scanned Gate Microscopy. Nano Letters, 2008, 8, 2161-2165.	9.1	19
48	Kr and 4He Adsorption on Individual Suspended Single-Walled Carbon Nanotubes. Journal of Low Temperature Physics, 2012, 169, 338-349.	1.4	19
49	One dimensional transport in carbon nanotubes. Microelectronic Engineering, 1999, 47, 417-420.	2.4	17
50	Oriented growth of single-wall carbon nanotubes using alumina patterns. Nanotechnology, 2004, 15, 473-476.	2.6	14
51	Surface electron perturbations and the collective behaviour of atoms adsorbed on a cylinder. Nature Physics, 2015, 11, 398-402.	16.7	6
52	Field-Dependent Band Structure Measurements in Two-Dimensional Heterostructures. Nano Letters, 2021, , .	9.1	2
53	A nanotube laboratory. Nature, 1999, 397, 648-649.	27.8	1