

Christopher J Mellor

List of Publications by Year in descending order

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57
papers

1,655
citations

331670

21
h-index

289244

40
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57
all docs

57
docs citations

57
times ranked

2733
citing authors

#	ARTICLE	IF	CITATIONS
1	High Broadband Photoresponsivity of Mechanically Formed InSe/Graphene van der Waals Heterostructures. <i>Advanced Materials</i> , 2015, 27, 3760-3766.	21.0	320
2	Identifying carbon as the source of visible single-photon emission from hexagonal boron nitride. <i>Nature Materials</i> , 2021, 20, 321-328.	27.5	210
3	Direct band-gap crossover in epitaxial monolayer boron nitride. <i>Nature Communications</i> , 2019, 10, 2639.	12.8	162
4	Hexagonal Boron Nitride Tunnel Barriers Grown on Graphite by High Temperature Molecular Beam Epitaxy. <i>Scientific Reports</i> , 2016, 6, 34474.	3.3	60
5	Ligand-Induced Control of Photoconductive Gain and Doping in a Hybrid Graphene/Quantum Dot Transistor. <i>Advanced Electronic Materials</i> , 2015, 1, 1500062.	5.1	59
6	Experiments on ions trapped below the surface of superfluid ^4He . <i>Journal of Physics C: Solid State Physics</i> , 1986, 19, 1135-1144.	1.5	56
7	Strain-Engineered Graphene Grown on Hexagonal Boron Nitride by Molecular Beam Epitaxy. <i>Scientific Reports</i> , 2016, 6, 22440.	3.3	49
8	Phonon Absorption at the Magnetoroton Minimum in the Fractional Quantum Hall Effect. <i>Physical Review Letters</i> , 1995, 74, 2339-2342.	7.8	47
9	Ballistic Heating of a Two-Dimensional Electron System by Phonon Excitation of the Magnetoroton Minimum at $\nu=1/3$. <i>Physical Review Letters</i> , 1999, 82, 5333-5336.	7.8	40
10	Nonlinear modal coupling in a high-stress doubly-clamped nanomechanical resonator. <i>New Journal of Physics</i> , 2012, 14, 113040.	2.9	40
11	Lattice-Matched Epitaxial Graphene Grown on Boron Nitride. <i>Nano Letters</i> , 2018, 18, 498-504.	9.1	39
12	Imaging nonequilibrium phonon-induced backscattering in the quantum Hall regime. <i>Physical Review Letters</i> , 1992, 69, 1684-1686.	7.8	37
13	Dissipation due to tunneling two-level systems in gold nanomechanical resonators. <i>Physical Review B</i> , 2010, 81, .	3.2	37
14	Scanning capacitance imaging of compressible and incompressible quantum Hall effect edge strips. <i>New Journal of Physics</i> , 2012, 14, 083015.	2.9	31
15	High-temperature molecular beam epitaxy of hexagonal boron nitride layers. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018, 36, .	1.2	31
16	Spin polarization of (Ga,Mn)As measured by Andreev spectroscopy: The role of spin-active scattering. <i>Physical Review B</i> , 2011, 83, .	3.2	29
17	Graphical computing in the undergraduate laboratory: Teaching and interfacing with LabVIEW. <i>American Journal of Physics</i> , 2003, 71, 1062-1074.	0.7	26
18	The effective masses of ions trapped below the surface of superfluid ^4He . <i>Journal of Physics C: Solid State Physics</i> , 1988, 21, 325-331.	1.5	25

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19	Flux-coherent series SQUID array magnetometers operating above 77 K with superior white flux noise than single-SQUIDs at 4.2 K. Applied Physics Letters, 2015, 107, .	3.3	24
20	Current-voltage characteristics of zinc-blende (cubic) Al _{0.3} Ga _{0.7} N/GaN double barrier resonant tunneling diodes. Applied Physics Letters, 2010, 97, .	3.3	23
21	High temperature MBE of graphene on sapphire and hexagonal boron nitride flakes on sapphire. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2016, 34, .	1.2	22
22	Determining phase boundaries and vapour/liquid critical points in supercritical fluids: a multi-technique approach. Journal of Supercritical Fluids, 2004, 30, 259-272.	3.2	20
23	Magnetoanisotropy of electron-correlation-enhanced tunneling through a quantum dot. Physical Review B, 2007, 75, .	3.2	20
24	Photoquantum Hall Effect and Light-Induced Charge Transfer at the Interface of Graphene/InSe Heterostructures. Advanced Functional Materials, 2019, 29, 1805491.	14.9	20
25	Increased surface flashover voltage in microfabricated devices. Applied Physics Letters, 2013, 103, 143504.	3.3	19
26	Moiré-Modulated Conductance of Hexagonal Boron Nitride Tunnel Barriers. Nano Letters, 2018, 18, 4241-4246.	9.1	19
27	Probing the Vapor-Liquid Phase Behaviors of Near-Critical and Supercritical Fluids Using a Shear Mode Piezoelectric Sensor. Analytical Chemistry, 2003, 75, 479-485.	6.5	18
28	Mid-infrared integrated optics: versatile hot embossing of mid-infrared glasses for on-chip planar waveguides for molecular sensing. Optical Engineering, 2014, 53, 071824.	1.0	18
29	Theory of phonon spectroscopy in the fractional quantum Hall regime. Physical Review B, 1999, 60, 10984-10996.	3.2	17
30	An atomic carbon source for high temperature molecular beam epitaxy of graphene. Scientific Reports, 2017, 7, 6598.	3.3	16
31	Fabrication of stable, low optical loss rib-waveguides via embossing of sputtered chalcogenide glass-film on glass-chip. Optical and Quantum Electronics, 2015, 47, 351-361.	3.3	12
32	Graphene-InSe-graphene van der Waals heterostructures. Journal of Physics: Conference Series, 2015, 647, 012001.	0.4	11
33	Magnetic field tunable vortex diode made of YBa ₂ Cu ₃ O _{7-x} Josephson junction asymmetrical arrays. Applied Physics Letters, 2017, 111, .	3.3	10
34	When Ellipsometry Works Best: A Case Study With Transparent Conductive Oxides. ACS Photonics, 2020, 7, 2692-2702.	6.6	10
35	Phonon emission from the first and second subbands of a two-dimensional electron gas in silicon detected by exciton luminescence. Physical Review B, 1992, 45, 11387-11390.	3.2	9
36	Amplification of electromagnetic waves excited by a chain of propagating magnetic vortices in YBa ₂ Cu ₃ O _{7-x} Josephson-junction arrays at 77 K and above. Superconductor Science and Technology, 2014, 27, 085015.	3.5	9

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37	Dynamic force microscopy in superfluid helium. Applied Physics Letters, 2002, 81, 916-918.	3.3	8
38	Missing conductivity peak in a surface acoustic wave measurement at $\nu=23$. Physical Review B, 2007, 75, .	3.2	6
39	Low-temperature and high magnetic field dynamic scanning capacitance microscope. Review of Scientific Instruments, 2009, 80, 013704.	1.3	6
40	Dissipation in a Gold Nanomechanical Resonator at Low Temperatures. Journal of Low Temperature Physics, 2010, 158, 685-691.	1.4	6
41	Parallel array of YBa ₂ Cu ₃ O _{7-δ} superconducting Josephson vortex-flow transistors with high current gains. Applied Physics Letters, 2013, 103, .	3.3	6
42	Variable temperature magnetic force microscopy with piezoelectric quartz tuning forks as probes optimized using Q-control. Applied Physics Letters, 2005, 87, 214106.	3.3	5
43	Magnetic flux quantum periodicity of the frequency of the on-chip detectable electromagnetic radiation from superconducting flux-flow-oscillators. Applied Physics Letters, 2020, 117, 142601.	3.3	4
44	Wigner crystallization of ions trapped in superfluid ⁴ He. Physica Scripta, 1991, T35, 145-149.	2.5	3
45	A patterned gate architecture for the study of high-quality AlGaAs/GaAs systems in the extreme quantum limit. Semiconductor Science and Technology, 1994, 9, 392-397.	2.0	2
46	Quantum oscillations in the cyclotron phonon emission from a heated two-dimensional electron gas. Physical Review B, 1995, 51, 7085-7089.	3.2	2
47	Surface acoustic wave attenuation by the localized states of a two-dimensional carrier system in a magnetic field. Semiconductor Science and Technology, 2001, 16, 136-139.	2.0	2
48	Resistance noise scaling in a dilute two-dimensional hole system in GaAs. , 2004, , .		2
49	Lung function measurement with multiple-breath-helium washout system. Medical Engineering and Physics, 2013, 35, 457-469.	1.7	2
50	Dual flux-to-voltage response of YBa ₂ Cu ₃ O _{7-δ} asymmetric parallel arrays of Josephson junctions. Superconductor Science and Technology, 2014, 27, 055019.	3.5	2
51	Photonic biosensor chip for early-stage cancer diagnosis. , 2015, , .		2
52	Phonon spectroscopy of the fractional quantum Hall effect. Physica Scripta, 1996, T66, 163-166.	2.5	1
53	III-V semiconductor waveguides for photonic functionality at 780 nm. , 2014, , .		1
54	Finite-wavevector studies of two-dimensional systems. Journal of Physics Condensed Matter, 1999, 11, 7723-7736.	1.8	0

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55	1/f Noise In Low Density Two-Dimensional Hole Systems In GaAs. AIP Conference Proceedings, 2005, , .	0.4	0
56	Microwave resonance susceptibility of a two-dimensional hole system in a weak random potential. Physical Review B, 2005, 71, .	3.2	0
57	Andreev reflection and spin polarization of SrRuO ₃ thin films on SrTiO ₃ (111). Journal of Physics: Conference Series, 2011, 303, 012068.	0.4	0