

# Robert C Dyne

## List of Publications by Year in descending order

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53  
papers

5,234  
citations

279487

23  
h-index

189595

50  
g-index

53  
all docs

53  
docs citations

53  
times ranked

3105  
citing authors

#	ARTICLE	IF	CITATIONS
1	Transition temperature of strong-coupled superconductors reanalyzed. Physical Review B, 1975, 12, 905-922.	1.1	2,690
2	Reproducible tunneling data on chemically etched single crystals of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review Letters, 1989, 63, 1008-1011.	2.9	431
3	Observation of Josephson pair tunneling between a high-T <sub>c</sub> cuprate (YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> ) and a conventional superconductor (Pb). Physical Review Letters, 1994, 72, 2267-2270.	2.9	418
4	c-axis Josephson Tunneling between YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> and Pb: Direct Evidence for Mixed Order Parameter Symmetry in a High-T <sub>c</sub> Superconductor. Physical Review Letters, 1997, 79, 3050-3053.	2.9	195
5	Nano Josephson superconducting tunnel junctions in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> directly patterned with a focused helium ion beam. Nature Nanotechnology, 2015, 10, 598-602.	15.6	146
6	Ion-beam-induced metal-insulator transition in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> : A mobility edge. Physical Review B, 1989, 39, 11599-11602.	1.1	144
7	Pair Tunneling from c-Axis YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> to Pb: Evidence for s-Wave Component from Microwave Induced Steps. Physical Review Letters, 1996, 76, 2161-2164.	2.9	128
8	Electron tunneling into single crystals of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review B, 1991, 44, 11986-11996.	1.1	97
9	Fluctuation Dominated Josephson Tunneling with a Scanning Tunneling Microscope. Physical Review Letters, 2001, 87, 097004.	2.9	83
10	Crossover from phase fluctuation to amplitude-dominated superconductivity: A model system. Physical Review B, 2001, 63, .	1.1	79
11	Direction of tunneling in Pb/I/YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> tunnel junctions. Physical Review B, 1996, 54, 6734-6741.	1.1	65
12	Observation of a Discontinuous Transition from Strong to Weak Localization in 1D Granular Metal Wires. Physical Review Letters, 1996, 76, 668-671.	2.9	59
13	Fabrication of all thin film YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> /Pb Josephson tunnel junctions. Applied Physics Letters, 1995, 66, 105-107.	1.5	54
14	Transport properties of high-T <sub>c</sub> planar Josephson junctions fabricated by nanolithography and ion implantation. Journal of Applied Physics, 2000, 87, 2978-2983.	1.1	48
15	Universal transport in two-dimensional granular superconductors. Physical Review B, 2002, 66, .	1.1	48
16	Very Large Scale Integration of Nanopatterned YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> Josephson Junctions in a Two-Dimensional Array. Nano Letters, 2009, 9, 3581-3585.	4.5	48
17	Planar MgB <sub>2</sub> Josephson junctions and series arrays via nanolithography and ion damage. Applied Physics Letters, 2006, 88, 012509.	1.5	44
18	Series array of incommensurate superconducting quantum interference devices from YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> ion damage Josephson junctions. Applied Physics Letters, 2008, 93, 182502.	1.5	37

#	ARTICLE	IF	CITATIONS
19	Direct-coupled micro-magnetometer with Y-Ba-Cu-O nano-slit SQUID fabricated with a focused helium ion beam. Applied Physics Letters, 2018, 113, 162602.	1.5	33
20	Large voltage modulation in magnetic field sensors from two-dimensional arrays of Y-Ba-Cu-O nano Josephson junctions. Applied Physics Letters, 2014, 104, .	1.5	31
21	Comparison of measurements and simulations of series-parallel incommensurate area superconducting quantum interference device arrays fabricated from YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> ion damage Josephson junctions. Journal of Applied Physics, 2012, 112, .	1.1	28
22	The fabrication of reproducible superconducting scanning tunneling microscope tips. Review of Scientific Instruments, 2001, 72, 1688.	0.6	25
23	Synthesis and properties of a-axis and b-axis oriented GdBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> high T <sub>c</sub> thin films. Applied Physics Letters, 1992, 61, 2598-2600.	1.5	23
24	Josephson scanning tunneling microscopy: A local and direct probe of the superconducting order parameter. Physical Review B, 2009, 80, .	1.1	23
25	Negative magnetoresistance, negative electroresistance, and metallic behavior on the insulating side of the two-dimensional superconductor-insulator transition in granular Pb films. Physical Review B, 2006, 73, .	1.1	21
26	Superconducting neural networks with disordered Josephson junction array synaptic networks and leaky integrate-and-fire loop neurons. Journal of Applied Physics, 2021, 129, .	1.1	21
27	Scanning Josephson Tunneling Microscopy of Single-Crystal Bi <sub>2</sub> S <sub>2</sub> O <sub>8</sub> Conventional Superconducting Tip. Physical Review Letters, 2008, 101, 037002	1.8	18
28	Granular superconductors and ferromagnets: A proximity-effect-based analogue. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1153-1165.	0.6	17
29	Proximity effect in ultrathin Pb/Ag multilayers within the Cooper limit. Physical Review B, 2003, 68, .	1.1	17
30	Josephson Effect in Pb/I/NbSe <sub>2</sub> Scanning Tunneling Microscope Junctions. International Journal of Modern Physics B, 2003, 17, 3569-3574.	1.0	17
31	Low-temperature emergent neuromorphic networks with correlated oxide devices. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	17
32	Operando characterization of conductive filaments during resistive switching in Mott VO <sub>2</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	15
33	Inherent stochasticity during insulator-metal transition in VO <sub>2</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	15
34	Variation of the density of states in amorphous GdSi at the metal-insulator transition. Physical Review B, 2004, 69, .	1.1	14
35	Comparison of Y-Ba-Cu-O Films Irradiated With Helium and Neon Ions for the Fabrication of Josephson Devices. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	10
36	Nanometer scale high-aspect-ratio trench etching at controllable angles using ballistic reactive ion etching. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 010604.	0.6	9

#	ARTICLE	IF	CITATIONS
37	Large scale two-dimensional arrays of magnesium diboride superconducting quantum interference devices. Applied Physics Letters, 2014, 104, 182604.	1.5	9
38	Neuromorphic computing: Challenges from quantum materials to emergent connectivity. Applied Physics Letters, 2022, 120, .	1.5	9
39	Effect of ion-irradiation-induced disorder on the low-field magnetoresistance of La <sub>0.67</sub> A <sub>0.33</sub> MnO <sub>3</sub> (A=Sr, Ca). Journal of Applied Physics, 1999, 85, 4791-4793.	1.1	8
40	Do ballistic channels contribute to the magnetoresistance in magnetic tunnel junctions?. Applied Physics Letters, 2002, 80, 285-287.	1.5	8
41	Superconducting tunneling as a probe of sputtered oxide barriers. Applied Physics Letters, 1999, 75, 127-129.	1.5	7
42	Superconducting disordered neural networks for neuromorphic processing with fluxons. Science Advances, 2022, 8, eabn4485.	4.7	7
43	Resting-state magnetoencephalography source magnitude imaging with deep learning neural network for classification of symptomatic combat-related mild traumatic brain injury. Human Brain Mapping, 2021, 42, 1987-2004.	1.9	5
44	Spin Polarized Tunneling at the Metal-Insulator Transition. International Journal of Modern Physics B, 2003, 17, 3723-3725.	1.0	4
45	LOCALIZATION AND THE METAL-INSULATOR TRANSITION - EXPERIMENTAL OBSERVATIONS. International Journal of Modern Physics B, 2010, 24, 2072-2089.	1.0	3
46	Micrometer Scale YBaCuO SQUID Arrays Fabricated With a Focused Helium Ion Beam. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-3.	1.1	2
47	Conduction and superconductivity in quench condensed metallic films. AIP Conference Proceedings, 1992, , .	0.3	1
48	Crossover from two- to three-dimensional magnetic disorder in submonoatomic ferromagnetic layers. Physical Review B, 2003, 68, .	1.1	1
49	Fabrication of Arrays of Nano-Superconducting Quantum Interference Devices Using a Double-Angle Processing Approach. IEEE Transactions on Applied Superconductivity, 2013, 23, 1100604-1100604.	1.1	1
50	Superconducting Nano Wire Circuits Fabricated using a Focused Helium Beam. Microscopy and Microanalysis, 2015, 21, 1997-1998.	0.2	1
51	Improved Fitting Of the Spin Polarized Tunneling Conductance Near the Metal-Insulator Transition. AIP Conference Proceedings, 2006, , .	0.3	0
52	Application of Focused Helium Ion Beams for Direct-write Lithography of Superconducting Electronics. Microscopy and Microanalysis, 2015, 21, 2321-2322.	0.2	0
53	Oxide superconductors' light on a continuing mystery. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2024422118.	3.3	0