

# Jeremy Robinson

## List of Publications by Year in descending order

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121  
papers

8,163  
citations

81743

39  
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46693

89  
g-index

123  
all docs

123  
docs citations

123  
times ranked

12519  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced Graphene Oxide Molecular Sensors. Nano Letters, 2008, 8, 3137-3140.	4.5	1,635
2	Properties of Fluorinated Graphene Films. Nano Letters, 2010, 10, 3001-3005.	4.5	980
3	Wafer-scale Reduced Graphene Oxide Films for Nanomechanical Devices. Nano Letters, 2008, 8, 3441-3445.	4.5	399
4	Electrical detection of charge-current-induced spin polarization due to spin-momentum locking in Bi <sub>2</sub> Se <sub>3</sub> . Nature Nanotechnology, 2014, 9, 218-224.	15.6	391
5	Manipulating Thermal Conductance at Metal-Graphene Contacts via Chemical Functionalization. Nano Letters, 2012, 12, 590-595.	4.5	240
6	Graphene As a Tunnel Barrier: Graphene-Based Magnetic Tunnel Junctions. Nano Letters, 2012, 12, 3000-3004.	4.5	199
7	Evidence for Interlayer Coupling and Moiré Periodic Potentials in Twisted Bilayer Graphene. Physical Review Letters, 2012, 109, 186807.	2.9	179
8	Large-Area Synthesis of Continuous and Uniform MoS <sub>2</sub> Monolayer Films on Graphene. Advanced Functional Materials, 2014, 24, 6449-6454.	7.8	149
9	Chemical Gradients on Graphene To Drive Droplet Motion. ACS Nano, 2013, 7, 4746-4755.	7.3	142
10	Fluorination of Graphene Enhances Friction Due to Increased Corrugation. Nano Letters, 2014, 14, 5212-5217.	4.5	142
11	Real-Time DNA Detection Using Reduced Graphene Oxide Field Effect Transistors. Advanced Materials, 2010, 22, 5297-5300.	11.1	141
12	Low-resistance spin injection into silicon using graphene tunnel barriers. Nature Nanotechnology, 2012, 7, 737-742.	15.6	134
13	Quantifying pulsed laser induced damage to graphene. Applied Physics Letters, 2011, 99, .	1.5	133
14	Atomically Thin Heterostructures Based on Single-Layer Tungsten Diselenide and Graphene. Nano Letters, 2014, 14, 6936-6941.	4.5	132
15	High-Quality Uniform Dry Transfer of Graphene to Polymers. Nano Letters, 2012, 12, 102-107.	4.5	128
16	Direct mechanochemical cleavage of functional groups from graphene. Nature Communications, 2015, 6, 6467.	5.8	111
17	Chemical Stability of Graphene Fluoride Produced by Exposure to XeF <sub>2</sub> . Nano Letters, 2013, 13, 4311-4316.	4.5	109
18	The functionalization of graphene using electron-beam generated plasmas. Applied Physics Letters, 2010, 96, .	1.5	106

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19	Shear Modulus of Monolayer Graphene Prepared by Chemical Vapor Deposition. <i>Nano Letters</i> , 2012, 12, 1013-1017.	4.5	105
20	Tuning the electronic properties of graphene by hydrogenation in a plasma enhanced chemical vapor deposition reactor. <i>Carbon</i> , 2011, 49, 4420-4426.	5.4	101
21	Reduction of graphene oxide by electron beam generated plasmas produced in methane/argon mixtures. <i>Carbon</i> , 2010, 48, 3382-3390.	5.4	99
22	Fabrication, Optimization, and Use of Graphene Field Effect Sensors. <i>Analytical Chemistry</i> , 2013, 85, 509-521.	3.2	99
23	Electronic Hybridization of Large-Area Stacked Graphene Films. <i>ACS Nano</i> , 2013, 7, 637-644.	7.3	85
24	Low-energy electron reflectivity from graphene. <i>Physical Review B</i> , 2013, 87, .	1.1	83
25	Chemically Isolated Graphene Nanoribbons Reversibly Formed in Fluorographene Using Polymer Nanowire Masks. <i>Nano Letters</i> , 2011, 11, 5461-5464.	4.5	79
26	Graphene as Electrophile: Reactions of Graphene Fluoride. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10507-10512.	1.5	70
27	van der Waals Screening by Single-Layer Graphene and Molybdenum Disulfide. <i>ACS Nano</i> , 2014, 8, 12410-12417.	7.3	69
28	Modifying Surface Energy of Graphene via Plasma-Based Chemical Functionalization to Tune Thermal and Electrical Transport at Metal Interfaces. <i>Nano Letters</i> , 2015, 15, 4876-4882.	4.5	68
29	High-Density Amine-Terminated Monolayers Formed on Fluorinated CVD-Grown Graphene. <i>Langmuir</i> , 2012, 28, 7957-7961.	1.6	67
30	Engineering Graphene Mechanical Systems. <i>Nano Letters</i> , 2012, 12, 4212-4218.	4.5	67
31	Homoepitaxial tunnel barriers with functionalized graphene-on-graphene for charge and spin transport. <i>Nature Communications</i> , 2014, 5, 3161.	5.8	67
32	Aminated graphene for DNA attachment produced via plasma functionalization. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	65
33	Nitrogen-Doped Graphene and Twisted Bilayer Graphene <i>via</i> Hyperthermal Ion Implantation with Depth Control. <i>ACS Nano</i> , 2016, 10, 3714-3722.	7.3	65
34	Patterning Magnetic Regions in Hydrogenated Graphene Via $\text{e}^-$ Beam Irradiation. <i>Advanced Materials</i> , 2015, 27, 1774-1778.	11.1	58
35	Correlation between structure and electrical transport in ion-irradiated graphene grown on Cu foils. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	55
36	Chemical hydrogenation of single-layer graphene enables completely reversible removal of electrical conductivity. <i>Carbon</i> , 2014, 72, 348-353.	5.4	52

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37	Low-energy electron point projection microscopy of suspended graphene, the ultimate $\mu$ -microscope slide <sup>TM</sup> . New Journal of Physics, 2011, 13, 063011.	1.2	46
38	Instability of two-dimensional graphene: Breaking $\langle \mathbf{s} \cdot \mathbf{p} \rangle$ with soft x rays. Physical Review B, 2009, 80, .	1.1	44
39	Ultrathin Single Crystal Diamond Nanomechanical Dome Resonators. Nano Letters, 2011, 11, 4304-4308.	4.5	39
40	Nanoscale Reduction of Graphene Fluoride via Thermochemical Nanolithography. ACS Nano, 2013, 7, 6219-6224.	7.3	39
41	Direct observation of minibands in a twisted graphene/WS <sub>2</sub> bilayer. Science Advances, 2020, 6, eaay6104.	4.7	39
42	Rotational Disorder in Twisted Bilayer Graphene. ACS Nano, 2014, 8, 1655-1663.	7.3	37
43	Global faceting behavior of strained Ge islands on Si. Nanotechnology, 2009, 20, 085708.	1.3	36
44	Hydrogenated Graphene as a Homoepitaxial Tunnel Barrier for Spin and Charge Transport in Graphene. ACS Nano, 2015, 9, 6747-6755.	7.3	36
45	Effects of Molecular Adsorption on the Electronic Structure of Single-Layer Graphene. Langmuir, 2011, 27, 11026-11036.	1.6	35
46	Total ionizing dose-hardened carbon nanotube thin-film transistors with silicon oxynitride gate dielectrics. MRS Communications, 2011, 1, 27-31.	0.8	35
47	Total Ionizing Dose Induced Charge Carrier Scattering in Graphene Devices. IEEE Transactions on Nuclear Science, 2012, 59, 3045-3053.	1.2	35
48	Radiation Effects in Carbon Nanoelectronics. Electronics (Switzerland), 2012, 1, 23-31.	1.8	35
49	Graphene-Based Magnetic Tunnel Junctions. IEEE Transactions on Magnetics, 2013, 49, 4343-4346.	1.2	34
50	Controlling the local chemical reactivity of graphene through spatial functionalization. Carbon, 2013, 60, 84-93.	5.4	32
51	Long-range atomic ordering and variable interlayer interactions in two overlapping graphene lattices with stacking misorientations. Physical Review B, 2012, 85, .	1.1	30
52	Metal-Induced Assembly of a Semiconductor Island Lattice: Ge Truncated Pyramids on Au-Patterned Si. Nano Letters, 2005, 5, 2070-2073.	4.5	27
53	Spin transport and Hanle effect in silicon nanowires using graphene tunnel barriers. Nature Communications, 2015, 6, 7541.	5.8	26
54	Acoustic cavities in 2D heterostructures. Nature Communications, 2021, 12, 3267.	5.8	26

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55	Graphene Strained by Defects. ACS Nano, 2017, 11, 4745-4752.	7.3	25
56	Observation of Electrically Tunable van Hove Singularities in Twisted Bilayer Graphene from NanoARPES. Advanced Materials, 2020, 32, 2001656.	11.1	25
57	Carrier heating and negative photoconductivity in graphene. Journal of Applied Physics, 2015, 117, 015101.	1.1	24
58	Robust reduction of graphene fluoride using an electrostatically biased scanning probe. Nano Research, 2013, 6, 767-774.	5.8	23
59	Reducing flicker noise in chemical vapor deposition graphene field-effect transistors. Applied Physics Letters, 2016, 108, .	1.5	23
60	Electrical and electrochemical characterization of proton transfer at the interface between chitosan and PdH <sub>x</sub> . Journal of Materials Chemistry C, 2017, 5, 11083-11091.	2.7	23
61	Radiation Effects in Single-Walled Carbon Nanotube Thin-Film-Transistors. IEEE Transactions on Nuclear Science, 2010, , .	1.2	22
62	Electronic transport and localization in nitrogen-doped graphene devices using hyperthermal ion implantation. Physical Review B, 2016, 93, .	1.1	22
63	Unexpected Near-Infrared to Visible Nonlinear Optical Properties from 2-D Polar Metals. Nano Letters, 2020, 20, 8312-8318.	4.5	22
64	Extraordinary magnetoresistance in shunted chemical vapor deposition grown graphene devices. Applied Physics Letters, 2011, 99, .	1.5	21
65	Raman signature of defected twisted bilayer graphene. Carbon, 2015, 93, 250-257.	5.4	21
66	Gold-Catalyzed Oxide Nanopatterns for the Directed Assembly of Ge Island Arrays on Si. Nano Letters, 2007, 7, 2655-2659.	4.5	20
67	Low temperature elastic properties of chemically reduced and CVD-grown graphene thin films. Diamond and Related Materials, 2010, 19, 875-878.	1.8	20
68	Enabling remote quantum emission in 2D semiconductors via porous metallic networks. Nature Communications, 2020, 11, 5.	5.8	20
69	Transfer of Chemically Modified Graphene with Retention of Functionality for Surface Engineering. Nano Letters, 2016, 16, 1455-1461.	4.5	19
70	Work Function Variations in Twisted Graphene Layers. Scientific Reports, 2018, 8, 2006.	1.6	19
71	Oxygen-Induced In Situ Manipulation of the Interlayer Coupling and Exciton Recombination in Bi <sub>2</sub> Se <sub>3</sub> /MoS <sub>2</sub> 2D Heterostructures. ACS Applied Materials & Interfaces, 2019, 11, 15913-15921.	4.0	19
72	Disordered Nanomaterials for Chemielectric Vapor Sensing: A Review. IEEE Sensors Journal, 2015, 15, 1301-1320.	2.4	18

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73	Metallicity of 2H-MoS <sub>2</sub> induced by Au hybridization. 2D Materials, 2020, 7, 025021.	2.0	17
74	TEM imaging of unstained DNA nanostructures using suspended graphene. Soft Matter, 2013, 9, 1414-1417.	1.2	15
75	Printing Highly Controlled Suspended Carbon Nanotube Network on Micro-patterned Superhydrophobic Flexible Surface. Scientific Reports, 2015, 5, 15908.	1.6	15
76	Graphene and monolayer transition-metal dichalcogenides: properties and devices. Journal of Materials Research, 2016, 31, 845-877.	1.2	15
77	Physical properties of nanometer graphene oxide films partially and fully reduced by annealing in ultra-high vacuum. Journal of Applied Physics, 2017, 122, .	1.1	15
78	Chemical Nanomachining of Silicon by Gold-Catalyzed Oxidation. Nano Letters, 2007, 7, 2009-2013.	4.5	14
79	Sculpting Semiconductor Heteroepitaxial Islands: From Dots to Rods. Physical Review Letters, 2007, 98, 106102.	2.9	13
80	In search of quantum-limited contact resistance: understanding the intrinsic and extrinsic effects on the graphene-metal interface. 2D Materials, 2016, 3, 025013.	2.0	13
81	Enhancing the stiffness of vertical graphene sheets through ion beam irradiation and fluorination. Nanotechnology, 2017, 28, 295701.	1.3	13
82	Spin relaxation and proximity effect in WS <sub>2</sub> /graphene/fluorographene non-local spin valves. Carbon, 2018, 131, 18-25.	5.4	13
83	Plasma-based chemical functionalization of graphene to control the thermal transport at graphene-metal interfaces. Surface and Coatings Technology, 2017, 314, 148-154.	2.2	12
84	Protection from Below: Stabilizing Hydrogenated Graphene Using Graphene Underlayers. Langmuir, 2017, 33, 13749-13756.	1.6	12
85	On the interpretation of ledge "bright spot" contrast effects in field ion microscope images. Philosophical Magazine and Journal, 1973, 27, 1417-1432.	1.8	11
86	Bilayer graphene by bonding CVD graphene to epitaxial graphene. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, 03D110.	0.6	10
87	Structural transformations in chemically modified graphene. Solid State Communications, 2012, 152, 1990-1998.	0.9	10
88	A graphene solution to conductivity mismatch: Spin injection from ferromagnetic metal/graphene tunnel contacts into silicon. Journal of Applied Physics, 2013, 113, .	1.1	10
89	Etch free graphene transfer to polymers. Surface and Coatings Technology, 2014, 241, 118-122.	2.2	10
90	Activation of radical addition to graphene by chemical hydrogenation. RSC Advances, 2016, 6, 93356-93362.	1.7	9

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91	Field emission energy distribution and three-terminal current-voltage characteristics from planar graphene edges. <i>Journal of Applied Physics</i> , 2019, 125, 054502.	1.1	9
92	In Operando Angle-Resolved Photoemission Spectroscopy with Nanoscale Spatial Resolution: Spatial Mapping of the Electronic Structure of Twisted Bilayer Graphene. <i>Small Science</i> , 2021, 1, 2000075.	5.8	8
93	Room-Temperature Spin Transport in Cd <sub>3</sub> As <sub>2</sub> . <i>ACS Nano</i> , 2021, 15, 5459-5466.	7.3	8
94	Ultrafast terahertz Faraday rotation in graphene. <i>Journal of Applied Physics</i> , 2014, 116, 214302.	1.1	7
95	Dry graphene transfer print to polystyrene and ultra-high molecular weight polyethylene - Detailed chemical, structural, morphological and electrical characterization. <i>Carbon</i> , 2015, 86, 288-300.	5.4	7
96	Homoepitaxial graphene tunnel barriers for spin transport. <i>AIP Advances</i> , 2016, 6, .	0.6	7
97	Chemical Mapping of Unstained DNA Origami Using STEM/EDS and Graphene Supports. <i>ACS Applied Nano Materials</i> , 2020, 3, 1123-1130.	2.4	7
98	Fluorinated Carbon Nanomaterials: XeF <sub>2</sub> Fluorination of Graphene. <i>ACS Symposium Series</i> , 2011, , 11-30.	0.5	6
99	Enhanced protonic conductivity and IFET behavior in individual proton-doped electrospun chitosan fibers. <i>Journal of Materials Chemistry C</i> , 2019, 7, 10833-10840.	2.7	6
100	Chemistries for Making Additive Nanolithography in OrmoComp Permissive for Cell Adhesion and Growth. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 19793-19798.	4.0	6
101	Transferring Electronic Devices with Hydrogenated Graphene. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801974.	1.9	6
102	Electronic Structure and Stacking Arrangement of Tungsten Disulfide at the Gold Contact. <i>ACS Nano</i> , 2021, 15, 18060-18070.	7.3	6
103	Internal Friction and Shear Modulus of Graphene Films. <i>Solid State Phenomena</i> , 2012, 184, 319-324.	0.3	5
104	Electronic Changes in Molybdenum Dichalcogenides on Gold Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25361-25368.	1.5	5
105	Morphological evolution of Ge islands on Au-patterned Si. <i>Journal of Crystal Growth</i> , 2006, 287, 518-521.	0.7	4
106	Modification of mechanical properties of vertical graphene sheets via fluorination. <i>RSC Advances</i> , 2016, 6, 11161-11166.	1.7	4
107	Fluorinated Graphene Enables the Growth of Inorganic Thin Films by Chemical Bath Deposition on Otherwise Inert Substrates. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 677-683.	4.0	3
108	Characterizing Multi-layer Pristine Graphene, Its Contaminants, and Their Origin Using Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2017, 23, 1740-1741.	0.2	3

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109	Aberration-Corrected Scanning Transmission Electron Microscopy and Energy-Dispersive Spectral Maps of DNA Origami Triangles Using Graphene Supports. <i>Microscopy and Microanalysis</i> , 2018, 24, 386-387.	0.2	2
110	Graphene-enabled block copolymer lithography transfer to arbitrary substrates. <i>Nano Express</i> , 2021, 2, 014009.	1.2	2
111	Ge Island Assembly on Metal-Patterned Si: Truncated Pyramids, Nanorods, and Beyond. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 56-68.	0.9	1
112	Thermally induced reactions of monolayer WS <sub>2</sub> with Au-Ti substrates. <i>Applied Surface Science</i> , 2021, 542, 148576.	3.1	1
113	Hydrogen-assisted graphene transfer: surface engineering for chemical, electronic, and biological applications. , 2018, , .		1
114	Directed assembly of Ge islands grown on Au-patterned Si(100). <i>AIP Conference Proceedings</i> , 2005, , .	0.3	0
115	Ordering and shape tuning of Ge islands on metal-patterned Si. <i>Materials Research Society Symposia Proceedings</i> , 2006, 958, 1.	0.1	0
116	Programming the Shape of Highly Ordered Ge Islands on Si: from Dots to Rods. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	0
117	Study of Helium-Ion-Beam-Generated Defects in a Monolayer WS <sub>2</sub> Using Aberration-Corrected Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 1596-1597.	0.2	0
118	Field Emission Energy Distribution from Planar Integrated Graphene. , 2018, , .		0
119	Lattice Registry and Evidence for Surface Reconstructions of Metal Films on Suspended 2D Membranes Following Annealing. <i>Microscopy and Microanalysis</i> , 2019, 25, 1516-1517.	0.2	0
120	Ultrabroadband THz Conductivity of Non-equilibrium Dirac Fermions in Graphene. , 2015, , .		0
121	Hybridized graphene materials. , 2018, , .		0