

# Michael F Crommie

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/1555134/michael-f-crommie-publications-by-citations.pdf>

**Version:** 2024-04-24

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100  
papers

13,657  
citations

45  
h-index

112  
g-index

112  
ext. papers

15,936  
ext. citations

15.5  
avg, IF

6.1  
L-index

#	Paper	IF	Citations
100	Direct observation of a widely tunable bandgap in bilayer graphene. <i>Nature</i> , <b>2009</b> , 459, 820-3	50.4	2751
99	Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. <i>Nature Materials</i> , <b>2014</b> , 13, 1091-5	27	1150
98	High-resolution EM of colloidal nanocrystal growth using graphene liquid cells. <i>Science</i> , <b>2012</b> , 336, 61-4	33.3	829
97	Origin of spatial charge inhomogeneity in graphene. <i>Nature Physics</i> , <b>2009</b> , 5, 722-726	16.2	574
96	Spatially resolving edge states of chiral graphene nanoribbons. <i>Nature Physics</i> , <b>2011</b> , 7, 616-620	16.2	557
95	Local electronic properties of graphene on a BN substrate via scanning tunneling microscopy. <i>Nano Letters</i> , <b>2011</b> , 11, 2291-5	11.5	475
94	Tuning the band gap of graphene nanoribbons synthesized from molecular precursors. <i>ACS Nano</i> , <b>2013</b> , 7, 6123-8	16.7	425
93	Quantum spin Hall state in monolayer 1TFTe2. <i>Nature Physics</i> , <b>2017</b> , 13, 683-687	16.2	399
92	Characterization of collective ground states in single-layer NbSe2. <i>Nature Physics</i> , <b>2016</b> , 12, 92-97	16.2	376
91	Drude conductivity of Dirac fermions in graphene. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	376
90	Giant phonon-induced conductance in scanning tunnelling spectroscopy of gate-tunable graphene. <i>Nature Physics</i> , <b>2008</b> , 4, 627-630	16.2	353
89	Molecular bandgap engineering of bottom-up synthesized graphene nanoribbon heterojunctions. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 156-60	28.7	340
88	A direct transfer of layer-area graphene. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 113102	3.4	300
87	Topological band engineering of graphene nanoribbons. <i>Nature</i> , <b>2018</b> , 560, 204-208	50.4	287
86	Scanning tunneling spectroscopy of inhomogeneous electronic structure in monolayer and bilayer graphene on SiC. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 122102	3.4	218
85	Short-channel field-effect transistors with 9-atom and 13-atom wide graphene nanoribbons. <i>Nature Communications</i> , <b>2017</b> , 8, 633	17.4	215
84	Mott and generalized Wigner crystal states in WSe/WS moiré superlattices. <i>Nature</i> , <b>2020</b> , 579, 359-363	50.4	212

83	Gate-controlled ionization and screening of cobalt adatoms on a graphene surface. <i>Nature Physics</i> , <b>2011</b> , 7, 43-47	16.2	198
82	Bottom-up graphene nanoribbon field-effect transistors. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 253114	3.4	178
81	Site-Specific Substitutional Boron Doping of Semiconducting Armchair Graphene Nanoribbons. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 8872-5	16.4	177
80	Observing atomic collapse resonances in artificial nuclei on graphene. <i>Science</i> , <b>2013</b> , 340, 734-7	33.3	175
79	Observation of ultralong valley lifetime in WSe <sub>2</sub> /MoS <sub>2</sub> heterostructures. <i>Science Advances</i> , <b>2017</b> , 3, e1700518	11.8	160
78	Charge density wave order in 1D mirror twin boundaries of single-layer MoSe <sub>2</sub> . <i>Nature Physics</i> , <b>2016</b> , 12, 751-756	16.2	156
77	Direct Growth of Single- and Few-Layer MoS <sub>2</sub> on h-BN with Preferred Relative Rotation Angles. <i>Nano Letters</i> , <b>2015</b> , 15, 6324-31	11.5	152
76	Characterization and manipulation of individual defects in insulating hexagonal boron nitride using scanning tunnelling microscopy. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 949-53	28.7	148
75	Imaging electrostatically confined Dirac fermions in graphene quantum dots. <i>Nature Physics</i> , <b>2016</b> , 12, 1032-1036	16.2	131
74	Atomically precise graphene nanoribbon heterojunctions from a single molecular precursor. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 1077-1082	28.7	118
73	Identifying substitutional oxygen as a prolific point defect in monolayer transition metal dichalcogenides. <i>Nature Communications</i> , <b>2019</b> , 10, 3382	17.4	117
72	Electronic Structure, Surface Doping, and Optical Response in Epitaxial WSe <sub>2</sub> Thin Films. <i>Nano Letters</i> , <b>2016</b> , 16, 2485-91	11.5	111
71	Probing the role of interlayer coupling and coulomb interactions on electronic structure in few-layer MoSe <sub>2</sub> nanostructures. <i>Nano Letters</i> , <b>2015</b> , 15, 2594-9	11.5	110
70	Imaging single-molecule reaction intermediates stabilized by surface dissipation and entropy. <i>Nature Chemistry</i> , <b>2016</b> , 8, 678-83	17.6	102
69	Mapping Dirac quasiparticles near a single Coulomb impurity on graphene. <i>Nature Physics</i> , <b>2012</b> , 8, 653-657	16.2	99
68	Closing the Nanographene Gap: Surface-Assisted Synthesis of Peripentacene from 6,6-Tribipentacene Precursors. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 15143-6	16.4	96
67	Observation of carrier-density-dependent many-body effects in graphene via tunneling spectroscopy. <i>Physical Review Letters</i> , <b>2010</b> , 104, 036805	7.4	96
66	Bottom-Up Synthesis of N = 13 Sulfur-Doped Graphene Nanoribbons. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 2684-2687	3.8	95

65	Soliton-dependent plasmon reflection at bilayer graphene domain walls. <i>Nature Materials</i> , <b>2016</b> , 15, 840-847	24	92
64	Local spectroscopy of moiré-induced electronic structure in gate-tunable twisted bilayer graphene. <i>Physical Review B</i> , <b>2015</b> , 92,	33	86
63	Persistent Charge-Density-Wave Order in Single-Layer TaSe. <i>Nano Letters</i> , <b>2018</b> , 18, 689-694	11.5	72
62	Observation of topologically protected states at crystalline phase boundaries in single-layer WSe. <i>Nature Communications</i> , <b>2018</b> , 9, 3401	17.4	68
61	Tuning charge and correlation effects for a single molecule on a graphene device. <i>Nature Communications</i> , <b>2016</b> , 7, 13553	17.4	66
60	Strong correlations and orbital texture in single-layer 1T-TaSe <sub>2</sub> . <i>Nature Physics</i> , <b>2020</b> , 16, 218-224	16.2	56
59	Hierarchical On-Surface Synthesis of Graphene Nanoribbon Heterojunctions. <i>ACS Nano</i> , <b>2018</b> , 12, 2193-2209	20.9	55
58	Measuring reversible photomechanical switching rates for a molecule at a surface. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 123107	3.4	52
57	Molecular Arrangement and Charge Transfer in C/Graphene Heterostructures. <i>ACS Nano</i> , <b>2017</b> , 11, 4686-4693	16.9	47
56	Inducing metallicity in graphene nanoribbons via zero-mode superlattices. <i>Science</i> , <b>2020</b> , 369, 1597-1603	33.3	46
55	Molecular Self-Assembly in a Poorly Screened Environment: F4TCNQ on Graphene/BN. <i>ACS Nano</i> , <b>2015</b> , 9, 12168-73	16.7	42
54	Nanoscale Control of Rewriteable Doping Patterns in Pristine Graphene/Boron Nitride Heterostructures. <i>Nano Letters</i> , <b>2016</b> , 16, 1620-5	11.5	42
53	Local Electronic Structure of a Single-Layer Porphyrin-Containing Covalent Organic Framework. <i>ACS Nano</i> , <b>2018</b> , 12, 385-391	16.7	41
52	Imaging moiré flat bands in three-dimensional reconstructed WSe/WS superlattices. <i>Nature Materials</i> , <b>2021</b> , 20, 945-950	27	41
51	Local Electronic Structure of Molecular Heterojunctions in a Single-Layer 2D Covalent Organic Framework. <i>Advanced Materials</i> , <b>2019</b> , 31, e1805941	24	35
50	Reversible writing of high-mobility and high-carrier-density doping patterns in two-dimensional van der Waals heterostructures. <i>Nature Electronics</i> , <b>2020</b> , 3, 99-105	28.4	32
49	Imaging and tuning molecular levels at the surface of a gated graphene device. <i>ACS Nano</i> , <b>2014</b> , 8, 5395-401	10.7	31
48	Sequence-defined oligo(-arylene) foldamers derived from the benzannulation of (arylene ethynylene)s. <i>Chemical Science</i> , <b>2016</b> , 7, 6357-6364	9.4	31

47	Bottom-up Assembly of Nanoporous Graphene with Emergent Electronic States. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 13507-13514	16.4	29
46	Visualization and Control of Single-Electron Charging in Bilayer Graphene Quantum Dots. <i>Nano Letters</i> , <b>2018</b> , 18, 5104-5110	11.5	27
45	Closing the Nanographene Gap: Surface-Assisted Synthesis of Peripentacene from 6,6?-Bipentacene Precursors. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 15358-15361	3.6	27
44	Iodine versus Bromine Functionalization for Bottom-Up Graphene Nanoribbon Growth: Role of Diffusion. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 18490-18495	3.8	26
43	Length-Dependent Evolution of Type II Heterojunctions in Bottom-Up-Synthesized Graphene Nanoribbons. <i>Nano Letters</i> , <b>2019</b> , 19, 3221-3228	11.5	25
42	Physics. Manipulating magnetism in a single molecule. <i>Science</i> , <b>2005</b> , 309, 1501-2	33.3	21
41	Preventing Thin Film Dewetting via Graphene Capping. <i>Advanced Materials</i> , <b>2017</b> , 29, 1701536	24	20
40	Concentration Dependence of Dopant Electronic Structure in Bottom-up Graphene Nanoribbons. <i>Nano Letters</i> , <b>2018</b> , 18, 3550-3556	11.5	19
39	Imaging two-dimensional generalized Wigner crystals. <i>Nature</i> , <b>2021</b> , 597, 650-654	50.4	19
38	Catalyst-Free and Morphology-Controlled Growth of 2D Perovskite Nanowires for Polarized Light Detection. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900039	8.1	18
37	Manipulating Topological Domain Boundaries in the Single-Layer Quantum Spin Hall Insulator 1TFWSe. <i>Nano Letters</i> , <b>2019</b> , 19, 5634-5639	11.5	18
36	Noncovalent Dimerization after Eneidyne Cyclization on Au(111). <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 10963-7	16.4	14
35	Frustrated supercritical collapse in tunable charge arrays on graphene. <i>Nature Communications</i> , <b>2019</b> , 10, 477	17.4	13
34	Graphene-Sealed Flow Cells for Transmission Electron Microscopy of Liquid Samples. <i>ACS Nano</i> , <b>2020</b> , 14, 9637-9643	16.7	13
33	Structural and electronic switching of a single crystal 2D metal-organic framework prepared by chemical vapor deposition. <i>Nature Communications</i> , <b>2020</b> , 11, 5524	17.4	13
32	Evidence for quantum spin liquid behaviour in single-layer 1T-TaSe <sub>2</sub> from scanning tunnelling microscopy. <i>Nature Physics</i> ,	16.2	13
31	Spatially resolving density-dependent screening around a single charged atom in graphene. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	12
30	Ultrahigh-resolution scanning microwave impedance microscopy of moiré lattices and superstructures. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	11

29	Imaging electric field dynamics with graphene optoelectronics. <i>Nature Communications</i> , <b>2016</b> , 7, 13704	17.4	11
28	Selenium capped monolayer NbSe <sub>2</sub> for two-dimensional superconductivity studies. <i>Physica Status Solidi (B): Basic Research</i> , <b>2016</b> , 253, 2396-2399	1.3	11
27	Revealing the Local Electronic Structure of a Single-Layer Covalent Organic Framework through Electronic Decoupling. <i>Nano Letters</i> , <b>2020</b> , 20, 963-970	11.5	10
26	Coupled One-Dimensional Plasmons and Two-Dimensional Phonon Polaritons in Hybrid Silver Nanowire/Silicon Carbide Structures. <i>Nano Letters</i> , <b>2017</b> , 17, 3662-3667	11.5	9
25	Geometry and electronic structure of iridium adsorbed on graphene. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	8
24	Visualizing delocalized correlated electronic states in twisted double bilayer graphene. <i>Nature Communications</i> , <b>2021</b> , 12, 2516	17.4	7
23	Imaging local discharge cascades for correlated electrons in WS <sub>2</sub> /WSe <sub>2</sub> moiré superlattices. <i>Nature Physics</i> ,	16.2	7
22	Fabrication of Gate-tunable Graphene Devices for Scanning Tunneling Microscopy Studies with Coulomb Impurities. <i>Journal of Visualized Experiments</i> , <b>2015</b> , e52711	1.6	6
21	Polymer-free, low tension graphene mechanical resonators. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2013</b> , 7, 1064-1066	2.5	5
20	Tunneling Spectroscopy in Carbon Nanotube-Hexagonal Boron Nitride-Carbon Nanotube Heterojunctions. <i>Nano Letters</i> , <b>2020</b> , 20, 6712-6718	11.5	5
19	Simulating the Nanomechanical Response of Cyclooctatetraene Molecules on a Graphene Device. <i>ACS Nano</i> , <b>2019</b> , 13, 1713-1718	16.7	4
18	Soliton-Dependent Electronic Transport across Bilayer Graphene Domain Wall. <i>Nano Letters</i> , <b>2020</b> , 20, 5936-5942	11.5	4
17	Intermolecular interactions and substrate effects for an adamantane monolayer on a Au(111) surface. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	4
16	Local Electronic Properties of Coherent Single-Layer WS/WSe Lateral Heterostructures. <i>Nano Letters</i> , <b>2021</b> , 21, 2363-2369	11.5	4
15	Synergetic Bottom-Up Synthesis of Graphene Nanoribbons by Matrix-Assisted Direct Transfer. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 4174-4178	16.4	4
14	Transfer-Free Synthesis of Atomically Precise Graphene Nanoribbons on Insulating Substrates. <i>ACS Nano</i> , <b>2021</b> , 15, 2635-2642	16.7	4
13	Mechanism of Formation of Benzotrithiophene-Based Covalent Organic Framework Monolayers on Coinage-Metal Surfaces: C <sub>60</sub> Coupling Selectivity and Monomer-Metal Interactions. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 10688-10696	9.6	3
12	Optical spectroscopy of bilayer graphene. <i>Physica Status Solidi (B): Basic Research</i> , <b>2010</b> , 247, 2931-2934	1.3	3

11	A molecular shift register made using tunable charge patterns in one-dimensional molecular arrays on graphene. <i>Nature Electronics</i> , <b>2020</b> , 3, 598-603	28.4	3
10	Microscopy of hydrogen and hydrogen-vacancy defect structures on graphene devices. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	3
9	Bottom-Up Synthesized Nanoporous Graphene Transistors (Adv. Funct. Mater. 47/2021). <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2170348	15.6	1
8	Imaging Reconfigurable Molecular Concentration on a Graphene Field-Effect Transistor. <i>Nano Letters</i> , <b>2021</b> , 21, 8770-8776	11.5	1
7	Bottom-Up Synthesized Nanoporous Graphene Transistors. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103798	15.6	1
6	Large-gap insulating dimer ground state in monolayer IrTe.. <i>Nature Communications</i> , <b>2022</b> , 13, 906	17.4	1
5	Pseudo-atomic orbital behavior in graphene nanoribbons with four-membered rings.. <i>Science Advances</i> , <b>2021</b> , 7, eabl5892	14.3	1
4	Imaging Quantum Interference in Stadium-Shaped Monolayer and Bilayer Graphene Quantum Dots. <i>Nano Letters</i> , <b>2021</b> , 21, 8993-8998	11.5	0
3	Graphene Electric Field Sensor Enables Single Shot Label-Free Imaging of Bioelectric Potentials. <i>Nano Letters</i> , <b>2021</b> , 21, 4944-4949	11.5	0
2	Imaging structural transitions in organometallic molecules on Ag(100) for solar thermal energy storage. <i>Journal of the Korean Physical Society</i> , <b>2017</b> , 70, 586-590	0.6	
1	Statistical Characterization of High Angle Graphene Grain Boundaries at Atomic Resolution. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1056-1057	0.5	