

Freddie Withers

List of Publications by Year in Descending Order

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

52
papers

6,057
citations

32
h-index

58
g-index

58
ext. papers

7,060
ext. citations

12.5
avg, IF

5.45
L-index

#	Paper	IF	Citations
52	Electrical tuning of optically active interlayer excitons in bilayer MoS. <i>Nature Nanotechnology</i> , 2021 , 16, 888-893	28.7	12
51	Electrical and optical properties of transition metal dichalcogenides on talc dielectrics. <i>Nanoscale</i> , 2021 , 13, 15853-15858	7.7	2
50	Interplay between spin proximity effect and charge-dependent exciton dynamics in MoSe/CrBr van der Waals heterostructures. <i>Nature Communications</i> , 2020 , 11, 6021	17.4	22
49	Heterostructures formed through abraded van der Waals materials. <i>Nature Communications</i> , 2020 , 11, 3047	17.4	14
48	Electrically pumped WSe ₂ -based light-emitting van der Waals heterostructures embedded in monolithic dielectric microcavities. <i>2D Materials</i> , 2020 , 7, 031006	5.9	8
47	Highly nonlinear trion-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , 2020 , 11, 3589	17.4	38
46	Engineering Dielectric Screening for Potential-well Arrays of Excitons in 2D Materials. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 55134-55140	9.5	4
45	Electrically tuneable exciton energy exchange between spatially separated 2-dimensional semiconductors in a microcavity. <i>Applied Physics Letters</i> , 2019 , 115, 071103	3.4	4
44	Anisotropic magnetoconductance and Coulomb blockade in defect engineered Cr ₂ Ge ₂ Te ₆ van der Waals heterostructures. <i>Physical Review B</i> , 2019 , 100,	3.3	7
43	Laser-writable high-k dielectric for van der Waals nanoelectronics. <i>Science Advances</i> , 2019 , 5, eaau0906	14.3	35
42	Electrically Tuneable Exciton-Polaritons through Free Electron Doping in Monolayer WS ₂ Microcavities. <i>Advanced Optical Materials</i> , 2019 , 7, 1900484	8.1	12
41	The valley Zeeman effect in inter- and intra-valley trions in monolayer WSe. <i>Nature Communications</i> , 2019 , 10, 2330	17.4	29
40	Upconverted electroluminescence via Auger scattering of interlayer excitons in van der Waals heterostructures. <i>Nature Communications</i> , 2019 , 10, 2335	17.4	32
39	Ultrahigh Performance Nanoengineered Graphene/Concrete Composites for Multifunctional Applications. <i>Advanced Functional Materials</i> , 2018 , 28, 1705183	15.6	101
38	Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr ₃ . <i>Nature Electronics</i> , 2018 , 1, 344-349	28.4	167
37	Valley coherent exciton-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , 2018 , 9, 4797	17.4	37
36	Strain-Engineering of Twist-Angle in Graphene/hBN Superlattice Devices. <i>Nano Letters</i> , 2018 , 18, 7919-7926	22.6	16

35	Water-based and biocompatible 2D crystal inks for all-inkjet-printed heterostructures. <i>Nature Nanotechnology</i> , 2017 , 12, 343-350	28.7	335
34	Sub-bandgap Voltage Electroluminescence and Magneto-oscillations in a WSe Light-Emitting van der Waals Heterostructure. <i>Nano Letters</i> , 2017 , 17, 1425-1430	11.5	30
33	Valley-addressable polaritons in atomically thin semiconductors. <i>Nature Photonics</i> , 2017 , 11, 497-501	33.9	127
32	Resonantly excited exciton dynamics in two-dimensional MoSe ₂ monolayers. <i>Physical Review B</i> , 2017 , 96,	3.3	11
31	Observing Imperfection in Atomic Interfaces for van der Waals Heterostructures. <i>Nano Letters</i> , 2017 , 17, 5222-5228	11.5	39
30	Macroscopic self-reorientation of interacting two-dimensional crystals. <i>Nature Communications</i> , 2016 , 7, 10800	17.4	86
29	High resolution STEM imaging and analysis of 2D crystal heterostructure devices and nanoparticle catalysts 2016 , 773-774		
28	Electrically pumped single-defect light emitters in WSe ₂ . <i>2D Materials</i> , 2016 , 3, 025038	5.9	56
27	Principle component analysis applied to high resolution cross sectional STEM imaging: Quantitative analysis of 2D heterostructures 2016 , 539-540		
26	Wafer-Scale and Wrinkle-Free Epitaxial Growth of Single-Orientated Multilayer Hexagonal Boron Nitride on Sapphire. <i>Nano Letters</i> , 2016 , 16, 3360-6	11.5	130
25	Exciton and trion dynamics in atomically thin MoSe ₂ and WSe ₂ : Effect of localization. <i>Physical Review B</i> , 2016 , 94,	3.3	88
24	Exciton-polaritons in van der Waals heterostructures embedded in tunable microcavities. <i>Nature Communications</i> , 2015 , 6, 8579	17.4	275
23	Electron transport of WS ₂ transistors in a hexagonal boron nitride dielectric environment. <i>Scientific Reports</i> , 2015 , 4,	4.9	76
22	Cross sectional STEM imaging and analysis of multilayered two dimensional crystal heterostructure devices. <i>Microscopy and Microanalysis</i> , 2015 , 21, 107-108	0.5	1
21	WSe ₂ Light-Emitting Tunneling Transistors with Enhanced Brightness at Room Temperature. <i>Nano Letters</i> , 2015 , 15, 8223-8	11.5	183
20	Light-emitting diodes by band-structure engineering in van der Waals heterostructures. <i>Nature Materials</i> , 2015 , 14, 301-6	27	1116
19	Graphene-protected copper and silver plasmonics. <i>Scientific Reports</i> , 2014 , 4, 5517	4.9	143
18	Electronic properties of graphene encapsulated with different two-dimensional atomic crystals. <i>Nano Letters</i> , 2014 , 14, 3270-6	11.5	345

17	Two-dimensional metal-chalcogenide films in tunable optical microcavities. <i>Nano Letters</i> , 2014 , 14, 7003-8	11.5	109
16	Raman modes of MoS2 used as fingerprint of van der Waals interactions in 2-D crystal-based heterostructures. <i>ACS Nano</i> , 2014 , 8, 9914-24	16.7	142
15	Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures. <i>Nature Nanotechnology</i> , 2014 , 9, 808-13	28.7	341
14	Detecting topological currents in graphene superlattices. <i>Science</i> , 2014 , 346, 448-51	33.3	481
13	Heterostructures produced from nanosheet-based inks. <i>Nano Letters</i> , 2014 , 14, 3987-92	11.5	147
12	Hierarchy of Hofstadter states and replica quantum Hall ferromagnetism in graphene superlattices. <i>Nature Physics</i> , 2014 , 10, 525-529	16.2	137
11	Dielectric nanosheets made by liquid-phase exfoliation in water and their use in graphene-based electronics. <i>2D Materials</i> , 2014 , 1, 011012	5.9	45
10	Quantum capacitance measurements of electron-hole asymmetry and next-nearest-neighbor hopping in graphene. <i>Physical Review B</i> , 2013 , 88,	3.3	66
9	All-graphene photodetectors. <i>ACS Nano</i> , 2013 , 7, 5052-7	16.7	86
8	Tuning the transport gap of functionalized graphene via electron beam irradiation. <i>New Journal of Physics</i> , 2013 , 15, 033024	2.9	23
7	Electrical transport in suspended and double gated trilayer graphene. <i>Applied Physics Letters</i> , 2012 , 100, 013114	3.4	32
6	Novel highly conductive and transparent graphene-based conductors. <i>Advanced Materials</i> , 2012 , 24, 2844-9	17	248
5	Tuning the electronic transport properties of grapheme through functionalisation with fluorine. <i>Nanoscale Research Letters</i> , 2011 , 6, 526	5	90
4	Phonons in potassium-doped graphene: The effects of electron-phonon interactions, dimensionality, and adatom ordering. <i>Physical Review B</i> , 2011 , 84,	3.3	55
3	Nanopatterning of fluorinated graphene by electron beam irradiation. <i>Nano Letters</i> , 2011 , 11, 3912-6	11.5	159
2	Electrochemical doping of graphene with toluene. <i>Carbon</i> , 2011 , 49, 3829-3834	10.4	22
1	Electron properties of fluorinated single-layer graphene transistors. <i>Physical Review B</i> , 2010 , 82,	3.3	284