

# Freddie Withers

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/19098/freddie-withers-publications-by-citations.pdf>

**Version:** 2024-04-25

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.

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 | Light-emitting diodes by band-structure engineering in van der Waals heterostructures. <i>Nature Materials</i> , <b>2015</b> , 14, 301-6                            | 27   | 1116      |
| 51 | Detecting topological currents in graphene superlattices. <i>Science</i> , <b>2014</b> , 346, 448-51  | 33.3 | 481       |
| 50 | Electronic properties of graphene encapsulated with different two-dimensional atomic crystals. <i>Nano Letters</i> , <b>2014</b> , 14, 3270-6                       | 11.5 | 345       |
| 49 | Twist-controlled resonant tunnelling in graphene/boron nitride/graphene heterostructures. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 808-13                    | 28.7 | 341       |
| 48 | Water-based and biocompatible 2D crystal inks for all-inkjet-printed heterostructures. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 343-350                     | 28.7 | 335       |
| 47 | Electron properties of fluorinated single-layer graphene transistors. <i>Physical Review B</i> , <b>2010</b> , 82,  | 3.3  | 284       |
| 46 | Exciton-polaritons in van der Waals heterostructures embedded in tunable microcavities. <i>Nature Communications</i> , <b>2015</b> , 6, 8579                        | 17.4 | 275       |
| 45 | Novel highly conductive and transparent graphene-based conductors. <i>Advanced Materials</i> , <b>2012</b> , 24, 2844-9   | 11.5 | 248       |
| 44 | WSe <sub>2</sub> Light-Emitting Tunneling Transistors with Enhanced Brightness at Room Temperature. <i>Nano Letters</i> , <b>2015</b> , 15, 8223-8                  | 11.5 | 183       |
| 43 | Magnon-assisted tunnelling in van der Waals heterostructures based on CrBr <sub>3</sub> . <i>Nature Electronics</i> , <b>2018</b> , 1, 344-349                      | 28.4 | 167       |
| 42 | Nanopatterning of fluorinated graphene by electron beam irradiation. <i>Nano Letters</i> , <b>2011</b> , 11, 3912-6   | 11.5 | 159       |
| 41 | Heterostructures produced from nanosheet-based inks. <i>Nano Letters</i> , <b>2014</b> , 14, 3987-92  | 11.5 | 147       |
| 40 | Graphene-protected copper and silver plasmonics. <i>Scientific Reports</i> , <b>2014</b> , 4, 5517  | 4.9  | 143       |
| 39 | Raman modes of MoS <sub>2</sub> used as fingerprint of van der Waals interactions in 2-D crystal-based heterostructures. <i>ACS Nano</i> , <b>2014</b> , 8, 9914-24 | 16.7 | 142       |
| 38 | Hierarchy of Hofstadter states and replica quantum Hall ferromagnetism in graphene superlattices. <i>Nature Physics</i> , <b>2014</b> , 10, 525-529                 | 16.2 | 137       |
| 37 | Wafer-Scale and Wrinkle-Free Epitaxial Growth of Single-Orientated Multilayer Hexagonal Boron Nitride on Sapphire. <i>Nano Letters</i> , <b>2016</b> , 16, 3360-6   | 11.5 | 130       |
| 36 | Valley-addressable polaritons in atomically thin semiconductors. <i>Nature Photonics</i> , <b>2017</b> , 11, 497-501  | 33.9 | 127       |

|    |   |      |     |
|----|---|------|-----|
| 35 | Two-dimensional metal-chalcogenide films in tunable optical microcavities. <i>Nano Letters</i> , <b>2014</b> , 14, 7003-7008  | 11.5 | 109 |
| 34 | Ultra-high Performance Nanoengineered Graphene-Concrete Composites for Multifunctional Applications. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705183     | 15.6 | 101 |
| 33 | Tuning the electronic transport properties of graphene through functionalisation with fluorine. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 526                  | 5    | 90  |
| 32 | Exciton and trion dynamics in atomically thin MoSe <sub>2</sub> and WSe <sub>2</sub> : Effect of localization. <i>Physical Review B</i> , <b>2016</b> , 94,               | 3.3  | 88  |
| 31 | Macroscopic self-reorientation of interacting two-dimensional crystals. <i>Nature Communications</i> , <b>2016</b> , 7, 10800   | 17.4 | 86  |
| 30 | All-graphene photodetectors. <i>ACS Nano</i> , <b>2013</b> , 7, 5052-7  | 16.7 | 86  |
| 29 | Electron transport of WS <sub>2</sub> transistors in a hexagonal boron nitride dielectric environment. <i>Scientific Reports</i> , <b>2015</b> , 4,                       | 4.9  | 76  |
| 28 | Quantum capacitance measurements of electron-hole asymmetry and next-nearest-neighbor hopping in graphene. <i>Physical Review B</i> , <b>2013</b> , 88,                   | 3.3  | 66  |
| 27 | Electrically pumped single-defect light emitters in WSe <sub>2</sub> . <i>2D Materials</i> , <b>2016</b> , 3, 025038  | 5.9  | 56  |
| 26 | Phonons in potassium-doped graphene: The effects of electron-phonon interactions, dimensionality, and adatom ordering. <i>Physical Review B</i> , <b>2011</b> , 84,       | 3.3  | 55  |
| 25 | Dielectric nanosheets made by liquid-phase exfoliation in water and their use in graphene-based electronics. <i>2D Materials</i> , <b>2014</b> , 1, 011012                | 5.9  | 45  |
| 24 | Observing Imperfection in Atomic Interfaces for van der Waals Heterostructures. <i>Nano Letters</i> , <b>2017</b> , 17, 5222-5228   | 11.5 | 39  |
| 23 | Highly nonlinear trion-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , <b>2020</b> , 11, 3589   | 17.4 | 38  |
| 22 | Valley coherent exciton-polaritons in a monolayer semiconductor. <i>Nature Communications</i> , <b>2018</b> , 9, 4797   | 17.4 | 37  |
| 21 | Laser-writable high-k dielectric for van der Waals nanoelectronics. <i>Science Advances</i> , <b>2019</b> , 5, eaau0906   | 14.3 | 35  |
| 20 | Upconverted electroluminescence via Auger scattering of interlayer excitons in van der Waals heterostructures. <i>Nature Communications</i> , <b>2019</b> , 10, 2335      | 17.4 | 32  |
| 19 | Electrical transport in suspended and double gated trilayer graphene. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 013114  | 3.4  | 32  |
| 18 | Sub-bandgap Voltage Electroluminescence and Magneto-oscillations in a WSe Light-Emitting van der Waals Heterostructure. <i>Nano Letters</i> , <b>2017</b> , 17, 1425-1430 | 11.5 | 30  |

|    |  |      |    |
|----|--|------|----|
| 17 | The valley Zeeman effect in inter- and intra-valley trions in monolayer WSe. <i>Nature Communications</i> , <b>2019</b> , 10, 2330   | 17.4 | 29 |
| 16 | Tuning the transport gap of functionalized graphene via electron beam irradiation. <i>New Journal of Physics</i> , <b>2013</b> , 15, 033024  | 2.9  | 23 |
| 15 | Interplay between spin proximity effect and charge-dependent exciton dynamics in MoSe/CrBr van der Waals heterostructures. <i>Nature Communications</i> , <b>2020</b> , 11, 6021                       | 17.4 | 22 |
| 14 | Electrochemical doping of graphene with toluene. <i>Carbon</i> , <b>2011</b> , 49, 3829-3834   | 10.4 | 22 |
| 13 | Strain-Engineering of Twist-Angle in Graphene/hBN Superlattice Devices. <i>Nano Letters</i> , <b>2018</b> , 18, 7919-7926  | 12.6 | 16 |
| 12 | Heterostructures formed through abraded van der Waals materials. <i>Nature Communications</i> , <b>2020</b> , 11, 3047   | 17.4 | 14 |
| 11 | Electrically Tuneable Exciton-Polaritons through Free Electron Doping in Monolayer WS <sub>2</sub> Microcavities. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900484                         | 8.1  | 12 |
| 10 | Electrical tuning of optically active interlayer excitons in bilayer MoS. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 888-893   | 28.7 | 12 |
| 9  | Resonantly excited exciton dynamics in two-dimensional MoSe <sub>2</sub> monolayers. <i>Physical Review B</i> , <b>2017</b> , 96,  | 3.3  | 11 |
| 8  | Electrically pumped WSe <sub>2</sub> -based light-emitting van der Waals heterostructures embedded in monolithic dielectric microcavities. <i>2D Materials</i> , <b>2020</b> , 7, 031006               | 5.9  | 8  |
| 7  | Anisotropic magnetoconductance and Coulomb blockade in defect engineered Cr <sub>2</sub> Ge <sub>2</sub> Te <sub>6</sub> van der Waals heterostructures. <i>Physical Review B</i> , <b>2019</b> , 100, | 3.3  | 7  |
| 6  | Electrically tuneable exciton energy exchange between spatially separated 2-dimensional semiconductors in a microcavity. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 071103                    | 3.4  | 4  |
| 5  | Engineering Dielectric Screening for Potential-well Arrays of Excitons in 2D Materials. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 55134-55140                                  | 9.5  | 4  |
| 4  | Electrical and optical properties of transition metal dichalcogenides on talc dielectrics. <i>Nanoscale</i> , <b>2021</b> , 13, 15853-15858  | 7.7  | 2  |
| 3  | Cross sectional STEM imaging and analysis of multilayered two dimensional crystal heterostructure devices. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 107-108                             | 0.5  | 1  |
| 2  | High resolution STEM imaging and analysis of 2D crystal heterostructure devices and nanoparticle catalysts <b>2016</b> , 773-774   |      |    |
| 1  | Principle component analysis applied to high resolution cross sectional STEM imaging: Quantitative analysis of 2D heterostructures <b>2016</b> , 539-540   |      |    |