Hannah Catherine Nerl

List of Publications by Citations

53 papers	25,373 citations	31 h-index	53 g-index
53 ext. papers	28,307 ext. citations	15.3 avg, IF	6.48 L-index

#	Paper	IF	Citations
53	Two-dimensional nanosheets produced by liquid exfoliation of layered materials. *Science*, **2011**, 331, 568-71	33.3	5221
52	High-yield production of graphene by liquid-phase exfoliation of graphite. *Nature Nanotechnology*, **2008**, 3, 563-8	28.7	4715
51	Liquid Exfoliation of Layered Materials. *Science*, **2013**, 340, 1226419-1226419	33.3	2604
50	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. *Nanoscale*, **2015**, 7, 4598-810	7.7	2015
49	Liquid phase production of graphene by exfoliation of graphite in surfactant/water solutions. *Journal of the American Chemical Society*, **2009**, 131, 3611-20	16.4	1821
48	Scalable production of large quantities of defect-free few-layer graphene by shear exfoliation in liquids. *Nature Materials*, **2014**, 13, 624-30	27	1627
47	Atom-by-atom structural and chemical analysis by annular dark-field electron microscopy. *Nature*, **2010**, 464, 571-4	50.4	958
46	Large-scale exfoliation of inorganic layered compounds in aqueous surfactant solutions. *Advanced Materials*, **2011**, 23, 3944-8	24	888
45	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. *Nature Communications*, **2015**, 6, 8563	17.4	764
44	Oxidation Stability of Colloidal Two-Dimensional Titanium Carbides (MXenes). *Chemistry of Materials*, **2017**, 29, 4848-4856	9.6	652
43	Transparent, Flexible, and Conductive 2D Titanium Carbide (MXene) Films with High Volumetric Capacitance. *Advanced Materials*, **2017**, 29, 1702678	24	538
42	Additive-free MXene inks and direct printing of micro-supercapacitors. *Nature Communications*, **2019**, 10, 1795	17.4	407
41	Edge and confinement effects allow in situ measurement of size and thickness of liquid-exfoliated nanosheets. *Nature Communications*, **2014**, 5, 4576	17.4	350
40	Stamping of Flexible, Coplanar Micro-Supercapacitors Using MXene Inks. *Advanced Functional Materials*, **2018**, 28, 1705506	15.6	322
39	All-printed thin-film transistors from networks of liquid-exfoliated nanosheets. *Science*, **2017**, 356, 69-73	33.3	301
38	Towards Solutions of Single-Walled Carbon Nanotubes in Common Solvents. *Advanced Materials*, **2008**, 20, 1876-1881	24	299
37	Basal-Plane Functionalization of Chemically Exfoliated Molybdenum Disulfide by Diazonium Salts. *ACS Nano*, **2015**, 9, 6018-30	16.7	232

36	Production of Molybdenum Trioxide Nanosheets by Liquid Exfoliation and Their Application in High-Performance Supercapacitors. *Chemistry of Materials*, **2014**, 26, 1751-1763	9.6	231
35	Graphene and MXene-based transparent conductive electrodes and supercapacitors. *Energy Storage Materials*, **2019**, 16, 102-125	19.4	217
34	In Situ Formed Protective Barrier Enabled by Sulfur@Titanium Carbide (MXene) Ink for Achieving High-Capacity, Long Lifetime Li-S Batteries. *Advanced Science*, **2018**, 5, 1800502	13.6	147
33	Preparation of Gallium Sulfide Nanosheets by Liquid Exfoliation and Their Application As Hydrogen Evolution Catalysts. *Chemistry of Materials*, **2015**, 27, 3483-3493	9.6	144
32	3D MXene Architectures for Efficient Energy Storage and Conversion. *Advanced Functional Materials*, **2020**, 30, 2000842	15.6	132
31	Cellular uptake mechanisms of functionalised multi-walled carbon nanotubes by 3D electron tomography imaging. *Nanoscale*, **2011**, 3, 2627-35	7.7	98
30	Liquid exfoliation of interlayer spacing-tunable 2D vanadium oxide nanosheets: High capacity and rate handling Li-ion battery cathodes. *Nano Energy*, **2017**, 39, 151-161	17.1	91
29	Effect of percolation on the capacitance of supercapacitor electrodes prepared from composites of manganese dioxide nanoplatelets and carbon nanotubes. *ACS Nano*, **2014**, 8, 9567-79	16.7	82
28	Covalently functionalized hexagonal boron nitride nanosheets by nitrene addition. *Chemistry - A European Journal*, **2012**, 18, 10808-12	4.8	64
27	Production of Ni(OH)2 nanosheets by liquid phase exfoliation: from optical properties to electrochemical applications. *Journal of Materials Chemistry A*, **2016**, 4, 11046-11059	13	60
26	Enabling Flexible Heterostructures for Li-Ion Battery Anodes Based on Nanotube and Liquid-Phase Exfoliated 2D Gallium Chalcogenide Nanosheet Colloidal Solutions. *Small*, **2017**, 13, 1701677	11	57
25	Probing the local nature of excitons and plasmons in few-layer MoS2. *Npj 2D Materials and Applications*, **2017**, 1,	8.8	41
24	Unusual stacking variations in liquid-phase exfoliated transition metal dichalcogenides. *ACS Nano*, **2014**, 8, 3690-9	16.7	36
23	Imaging methods for determining uptake and toxicity of carbon nanotubes in vitro and in vivo. *Nanomedicine*, **2011**, 6, 849-65	5.6	31
22	Liquid phase exfoliation of MoO2 nanosheets for lithium ion battery applications. *Nanoscale Advances*, **2019**, 1, 1560-1570	5.1	29
21	MXene materials based printed flexible devices for healthcare, biomedical and energy storage applications. *Materials Today*, **2021**, 43, 99-131	21.8	29
20	Insights into Chemical Dynamics and Their Impact on the Reactivity of Pt Nanoparticles during CO Oxidation by Operando TEM. *ACS Catalysis*, **2020**, 10, 3183-3193	13.1	23
19	Extra lithium-ion storage capacity enabled by liquid-phase exfoliated indium selenide nanosheets conductive network. *Energy and Environmental Science*, **2020**, 13, 2124-2133	35.4	20

18	Production of Quasi-2D Platelets of Nonlayered Iron Pyrite (FeS) by Liquid-Phase Exfoliation for High Performance Battery Electrodes. *ACS Nano*, **2020**, 14, 13418-13432	16.7	20
17	Growth of large sized two-dimensional MoS flakes in aqueous solution. *Nanoscale*, **2017**, 9, 6575-6580	7.7	15
16	A comparison of catabolic pathways induced in primary macrophages by pristine single walled carbon nanotubes and pristine graphene. *RSC Advances*, **2016**, 6, 65299-65310	3.7	12
15	High mobility solution processed MoS2 thin film transistors. *Solid-State Electronics*, **2019**, 158, 75-84	1.7	11
14	Two-dimensional material inks. *Nature Reviews Materials*,	73.3	11
13	Field-Dependent Electrical and Thermal Transport in Polycrystalline WSe2. *Advanced Materials Interfaces*, **2018**, 5, 1701161	4.6	9
12	Long-chain amine-templated synthesis of gallium sulfide and gallium selenide nanotubes. *Nanoscale*, **2016**, 8, 11698-706	7.7	9
11	Versatile Homebuilt Gas Feed and Analysis System for TEM of Catalysts at Work. *Microscopy and Microanalysis*, **2020**, 26, 220-228	0.5	7
10	Self-Assembly of Atomically Thin Chiral Copper Heterostructures Templated by Black Phosphorus. *Advanced Functional Materials*, **2019**, 29, 1903120	15.6	7
9	Efficient fluorescence quenching in electrochemically exfoliated graphene decorated with gold nanoparticles. *Nanotechnology*, **2016**, 27, 275702	3.4	6
8	Visualizing the importance of oxide-metal phase transitions in the production of synthesis gas over Ni catalysts. *Journal of Energy Chemistry*, **2020**, 50, 178-186	12	5
7	2D nanosheets from fool's gold by LPE: High performance lithium-ion battery anodes made from stone. *FlatChem*, **2021**, 30, 100295	5.1	4
6	Liquid phase exfoliation of nonlayered non-van der Waals iron trifluoride (FeF3) into 2D-platelets for high-capacity lithium storing cathodes. *FlatChem*, **2022**, 33, 100360	5.1	4
5	Synthesis of layered platelets by self-assembly of rhenium-based clusters directed by long-chain amines. *Npj 2D Materials and Applications*, **2017**, 1,	8.8	3
4	Sonochemical edge functionalisation of molybdenum disulfide. *Nanoscale*, **2019**, 11, 15550-15560	7.7	2
3	Study Using Low-loss EELS to Compare Properties of TMDs Produced by Mechanical and Liquid Phase Exfoliation. *Microscopy and Microanalysis*, **2015**, 21, 1475-1476	0.5	2
2	Exciton and Plasmon Mapping at the Nanoscale **2016**, 415-416		
1	Synthesis and Advanced Characterisation of Layered Platelets by Self-assembly of Long-chain Amines. *Microscopy and Microanalysis*, **2018**, 24, 1566-1567	0.5	