Hannah Catherine Nerl

List of Publications by Year
in descending order

52 papers	31,065 citations	109137 35 h-index	182168 51 g-index
53 all docs	53 docs citations	53 times ranked	32834 citing authors

#	Article	IF	Citations
1	Two-Dimensional Nanosheets Produced by Liquid Exfoliation of Layered Materials. Science, 2011, 331, 568-571.	6.0	6,190
2	High-yield production of graphene by liquid-phase exfoliation of graphite. Nature Nanotechnology, 2008, 3, 563-568.	15.6	5,431
3	Liquid Exfoliation of Layered Materials. Science, 2013, 340, .	6.0	3,109
4	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. Nanoscale, 2015, 7, 4598-4810.	2.8	2,452
5	Liquid Phase Production of Graphene by Exfoliation of Graphite in Surfactant/Water Solutions. Journal of the American Chemical Society, 2009, 131, 3611-3620.	6.6	2,038
6	Scalable production of large quantities of defect-free few-layer graphene by shear exfoliation in liquids. Nature Materials, 2014, 13, 624-630.	13.3	1,958
7	Atom-by-atom structural and chemical analysis by annular dark-field electron microscopy. Nature, 2010, 464, 571-574.	13.7	1,138
8	Oxidation Stability of Colloidal Two-Dimensional Titanium Carbides (MXenes). Chemistry of Materials, 2017, 29, 4848-4856.	3.2	1,120
9	Largeâ€Scale Exfoliation of Inorganic Layered Compounds in Aqueous Surfactant Solutions. Advanced Materials, 2011, 23, 3944-3948.	11.1	1,012
10	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. Nature Communications, 2015, 6, 8563.	5.8	921
11	Transparent, Flexible, and Conductive 2D Titanium Carbide (MXene) Films with High Volumetric Capacitance. Advanced Materials, 2017, 29, 1702678.	11.1	756
12	Additive-free MXene inks and direct printing of micro-supercapacitors. Nature Communications, 2019, 10, 1795.	5.8	649
13	Edge and confinement effects allow in situ measurement of size and thickness of liquid-exfoliated nanosheets. Nature Communications, 2014, 5, 4576.	5.8	432
14	Stamping of Flexible, Coplanar Microâ€Supercapacitors Using MXene Inks. Advanced Functional Materials, 2018, 28, 1705506.	7.8	427
15	All-printed thin-film transistors from networks of liquid-exfoliated nanosheets. Science, 2017, 356, 69-73.	6.0	391
16	Towards Solutions of Singleâ€Walled Carbon Nanotubes in Common Solvents. Advanced Materials, 2008, 20, 1876-1881.	11.1	333
17	Graphene and MXene-based transparent conductive electrodes and supercapacitors. Energy Storage Materials, 2019, 16, 102-125.	9.5	313
18	Basal-Plane Functionalization of Chemically Exfoliated Molybdenum Disulfide by Diazonium Salts. ACS Nano, 2015, 9, 6018-6030.	7.3	293

#	Article	IF	Citations
19	3D MXene Architectures for Efficient Energy Storage and Conversion. Advanced Functional Materials, 2020, 30, 2000842.	7.8	276
20	Production of Molybdenum Trioxide Nanosheets by Liquid Exfoliation and Their Application in High-Performance Supercapacitors. Chemistry of Materials, 2014, 26, 1751-1763.	3.2	266
21	In Situ Formed Protective Barrier Enabled by Sulfur@Titanium Carbide (MXene) Ink for Achieving Highâ€Capacity, Long Lifetime Liâ€S Batteries. Advanced Science, 2018, 5, 1800502.	5.6	210
22	Preparation of Gallium Sulfide Nanosheets by Liquid Exfoliation and Their Application As Hydrogen Evolution Catalysts. Chemistry of Materials, 2015, 27, 3483-3493.	3.2	195
23	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.	8.2	123
24	Cellular uptake mechanisms of functionalised multi-walled carbon nanotubes by 3D electron tomography imaging. Nanoscale, 2011, 3, 2627.	2.8	110
25	MXene materials based printed flexible devices for healthcare, biomedical and energy storage applications. Materials Today, 2021, 43, 99-131.	8.3	107
26	Effect of Percolation on the Capacitance of Supercapacitor Electrodes Prepared from Composites of Manganese Dioxide Nanoplatelets and Carbon Nanotubes. ACS Nano, 2014, 8, 9567-9579.	7.3	89
27	Covalently Functionalized Hexagonal Boron Nitride Nanosheets by Nitrene Addition. Chemistry - A European Journal, 2012, 18, 10808-10812.	1.7	75
28	Production of Ni(OH)₂nanosheets by liquid phase exfoliation: from optical properties to electrochemical applications. Journal of Materials Chemistry A, 2016, 4, 11046-11059.	5.2	71
29	Enabling Flexible Heterostructures for Liâ€Ion Battery Anodes Based on Nanotube and Liquidâ€Phase Exfoliated 2D Gallium Chalcogenide Nanosheet Colloidal Solutions. Small, 2017, 13, 1701677.	5.2	71
30	Two-dimensional material inks. Nature Reviews Materials, 2022, 7, 717-735.	23.3	71
31	Probing the local nature of excitons and plasmons in few-layer MoS2. Npj 2D Materials and Applications, 2017, 1, .	3.9	58
32	Production of Quasi-2D Platelets of Nonlayered Iron Pyrite (FeS₂) by Liquid-Phase Exfoliation for High Performance Battery Electrodes. ACS Nano, 2020, 14, 13418-13432.	7.3	45
33	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.	5.5	44
34	Unusual Stacking Variations in Liquid-Phase Exfoliated Transition Metal Dichalcogenides. ACS Nano, 2014, 8, 3690-3699.	7.3	43
35	Imaging methods for determining uptake and toxicity of carbon nanotubes in vitro and in vivo. Nanomedicine, 2011, 6, 849-865.	1.7	37
36	Liquid phase exfoliation of MoO₂ nanosheets for lithium ion battery applications. Nanoscale Advances, 2019, 1, 1560-1570.	2.2	35

#	Article	IF	Citations
37	Extra lithium-ion storage capacity enabled by liquid-phase exfoliated indium selenide nanosheets conductive network. Energy and Environmental Science, 2020, 13, 2124-2133.	15.6	35
38	Growth of large sized two-dimensional MoS₂ flakes in aqueous solution. Nanoscale, 2017, 9, 6575-6580.	2.8	17
39	Fieldâ€Dependent Electrical and Thermal Transport in Polycrystalline WSe₂. Advanced Materials Interfaces, 2018, 5, 1701161.	1.9	17
40	High mobility solution processed MoS2 thin film transistors. Solid-State Electronics, 2019, 158, 75-84.	0.8	16
41	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.	2.8	15
42	A comparison of catabolic pathways induced in primary macrophages by pristine single walled carbon nanotubes and pristine graphene. RSC Advances, 2016, 6, 65299-65310.	1.7	13
43	Versatile Homebuilt Gas Feed and Analysis System for Operando TEM of Catalysts at Work. Microscopy and Microanalysis, 2020, 26, 220-228.	0.2	12
44	Long-chain amine-templated synthesis of gallium sulfide and gallium selenide nanotubes. Nanoscale, 2016, 8, 11698-11706.	2.8	11
45	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.	7.1	10
46	Selfâ€Assembly of Atomically Thin Chiral Copper Heterostructures Templated by Black Phosphorus. Advanced Functional Materials, 2019, 29, 1903120.	7.8	9
47	Efficient fluorescence quenching in electrochemically exfoliated graphene decorated with gold nanoparticles. Nanotechnology, 2016, 27, 275702.	1.3	6
48	2D nanosheets from foolâ€™s gold by LPE: High performance lithium-ion battery anodes made from stone. FlatChem, 2021, 30, 100295.	2.8	6
49	Sonochemical edge functionalisation of molybdenum disulfide. Nanoscale, 2019, 11, 15550-15560.	2.8	4
50	Synthesis of layered platelets by self-assembly of rhenium-based clusters directed by long-chain amines. Npj 2D Materials and Applications, 2017, 1, .	3.9	3
51	Study Using Low-loss EELS to Compare Properties of TMDs Produced by Mechanical and Liquid Phase Exfoliation. Microscopy and Microanalysis, 2015, 21, 1475-1476.	0.2	2
52	Synthesis and Advanced Characterisation of Layered Platelets by Self-assembly of Long-chain Amines. Microscopy and Microanalysis, 2018, 24, 1566-1567.	0.2	0