Hannah Catherine Nerl

List of Publications by Year in descending order

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52 papers 31,065 citations

35 h-index 51 g-index

53 all docs 53 docs citations 53 times ranked 32834 citing authors

#	Article	IF	CITATIONS
1	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.	5.6	15
2	Two-dimensional material inks. Nature Reviews Materials, 2022, 7, 717-735.	48.7	71
3	MXene materials based printed flexible devices for healthcare, biomedical and energy storage applications. Materials Today, 2021, 43, 99-131.	14.2	107
4	2D nanosheets from fool's gold by LPE: High performance lithium-ion battery anodes made from stone. FlatChem, 2021, 30, 100295.	5.6	6
5	Production of Quasi-2D Platelets of Nonlayered Iron Pyrite (FeS ₂) by Liquid-Phase Exfoliation for High Performance Battery Electrodes. ACS Nano, 2020, 14, 13418-13432.	14.6	45
6	Extra lithium-ion storage capacity enabled by liquid-phase exfoliated indium selenide nanosheets conductive network. Energy and Environmental Science, 2020, 13, 2124-2133.	30.8	35
7	3D MXene Architectures for Efficient Energy Storage and Conversion. Advanced Functional Materials, 2020, 30, 2000842.	14.9	276
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.	12.9	10
9	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.	11.2	44
10	Versatile Homebuilt Gas Feed and Analysis System for <i>Operando</i> TEM of Catalysts at Work. Microscopy and Microanalysis, 2020, 26, 220-228.	0.4	12
11	Sonochemical edge functionalisation of molybdenum disulfide. Nanoscale, 2019, 11, 15550-15560.	5.6	4
12	Selfâ€Assembly of Atomically Thin Chiral Copper Heterostructures Templated by Black Phosphorus. Advanced Functional Materials, 2019, 29, 1903120.	14.9	9
13	High mobility solution processed MoS2 thin film transistors. Solid-State Electronics, 2019, 158, 75-84.	1.4	16
14	Additive-free MXene inks and direct printing of micro-supercapacitors. Nature Communications, 2019, 10, 1795.	12.8	649
15	Liquid phase exfoliation of MoO ₂ nanosheets for lithium ion battery applications. Nanoscale Advances, 2019, 1, 1560-1570.	4.6	35
16	Graphene and MXene-based transparent conductive electrodes and supercapacitors. Energy Storage Materials, 2019, 16, 102-125.	18.0	313
17	Stamping of Flexible, Coplanar Microâ€Supercapacitors Using MXene Inks. Advanced Functional Materials, 2018, 28, 1705506.	14.9	427
18	Fieldâ€Dependent Electrical and Thermal Transport in Polycrystalline WSe ₂ . Advanced Materials Interfaces, 2018, 5, 1701161.	3.7	17

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19	Synthesis and Advanced Characterisation of Layered Platelets by Self-assembly of Long-chain Amines. Microscopy and Microanalysis, 2018, 24, 1566-1567.	0.4	О
20	In Situ Formed Protective Barrier Enabled by Sulfur@Titanium Carbide (MXene) Ink for Achieving Highâ€Capacity, Long Lifetime Li‧ Batteries. Advanced Science, 2018, 5, 1800502.	11.2	210
21	Growth of large sized two-dimensional MoS ₂ flakes in aqueous solution. Nanoscale, 2017, 9, 6575-6580.	5.6	17
22	Probing the local nature of excitons and plasmons in few-layer MoS2. Npj 2D Materials and Applications, 2017, $1,\ldots$	7.9	58
23	Oxidation Stability of Colloidal Two-Dimensional Titanium Carbides (MXenes). Chemistry of Materials, 2017, 29, 4848-4856.	6.7	1,120
24	All-printed thin-film transistors from networks of liquid-exfoliated nanosheets. Science, 2017, 356, 69-73.	12.6	391
25	Transparent, Flexible, and Conductive 2D Titanium Carbide (MXene) Films with High Volumetric Capacitance. Advanced Materials, 2017, 29, 1702678.	21.0	756
26	Synthesis of layered platelets by self-assembly of rhenium-based clusters directed by long-chain amines. Npj 2D Materials and Applications, 2017, 1 , .	7.9	3
27	Enabling Flexible Heterostructures for Liâ€lon Battery Anodes Based on Nanotube and Liquidâ€Phase Exfoliated 2D Gallium Chalcogenide Nanosheet Colloidal Solutions. Small, 2017, 13, 1701677.	10.0	71
28	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.	16.0	123
29	Long-chain amine-templated synthesis of gallium sulfide and gallium selenide nanotubes. Nanoscale, 2016, 8, 11698-11706.	5.6	11
30	Production of Ni(OH) < sub > 2 < /sub > nanosheets by liquid phase exfoliation: from optical properties to electrochemical applications. Journal of Materials Chemistry A, 2016, 4, 11046-11059.	10.3	71
31	A comparison of catabolic pathways induced in primary macrophages by pristine single walled carbon nanotubes and pristine graphene. RSC Advances, 2016, 6, 65299-65310.	3.6	13
32	Efficient fluorescence quenching in electrochemically exfoliated graphene decorated with gold nanoparticles. Nanotechnology, 2016, 27, 275702.	2.6	6
33	Study Using Low-loss EELS to Compare Properties of TMDs Produced by Mechanical and Liquid Phase Exfoliation. Microscopy and Microanalysis, 2015, 21, 1475-1476.	0.4	2
34	Basal-Plane Functionalization of Chemically Exfoliated Molybdenum Disulfide by Diazonium Salts. ACS Nano, 2015, 9, 6018-6030.	14.6	293
35	Preparation of Gallium Sulfide Nanosheets by Liquid Exfoliation and Their Application As Hydrogen Evolution Catalysts. Chemistry of Materials, 2015, 27, 3483-3493.	6.7	195
36	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. Nature Communications, 2015, 6, 8563.	12.8	921

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37	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. Nanoscale, 2015, 7, 4598-4810.	5.6	2,452
38	Scalable production of large quantities of defect-free few-layer graphene by shear exfoliation in liquids. Nature Materials, 2014, 13, 624-630.	27.5	1,958
39	Production of Molybdenum Trioxide Nanosheets by Liquid Exfoliation and Their Application in High-Performance Supercapacitors. Chemistry of Materials, 2014, 26, 1751-1763.	6.7	266
40	Edge and confinement effects allow in situ measurement of size and thickness of liquid-exfoliated nanosheets. Nature Communications, 2014, 5, 4576.	12.8	432
41	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.	14.6	89
42	Unusual Stacking Variations in Liquid-Phase Exfoliated Transition Metal Dichalcogenides. ACS Nano, 2014, 8, 3690-3699.	14.6	43
43	Liquid Exfoliation of Layered Materials. Science, 2013, 340, .	12.6	3,109
44	Covalently Functionalized Hexagonal Boron Nitride Nanosheets by Nitrene Addition. Chemistry - A European Journal, 2012, 18, 10808-10812.	3.3	75
45	Imaging methods for determining uptake and toxicity of carbon nanotubes <i>in vitro</i> and <i>in vivo</i> . Nanomedicine, 2011, 6, 849-865.	3.3	37
46	Cellular uptake mechanisms of functionalised multi-walled carbon nanotubes by 3D electron tomography imaging. Nanoscale, 2011, 3, 2627.	5.6	110
47	Two-Dimensional Nanosheets Produced by Liquid Exfoliation of Layered Materials. Science, 2011, 331, 568-571.	12.6	6,190
48	Largeâ€6cale Exfoliation of Inorganic Layered Compounds in Aqueous Surfactant Solutions. Advanced Materials, 2011, 23, 3944-3948.	21.0	1,012
49	Atom-by-atom structural and chemical analysis by annular dark-field electron microscopy. Nature, 2010, 464, 571-574.	27.8	1,138
50	Liquid Phase Production of Graphene by Exfoliation of Graphite in Surfactant/Water Solutions. Journal of the American Chemical Society, 2009, 131, 3611-3620.	13.7	2,038
51	Towards Solutions of Singleâ€Walled Carbon Nanotubes in Common Solvents. Advanced Materials, 2008, 20, 1876-1881.	21.0	333
52	High-yield production of graphene by liquid-phase exfoliation of graphite. Nature Nanotechnology, 2008, 3, 563-568.	31.5	5,431