Torben Daeneke

List of Publications by Year in Descending Order

120 papers	8,129 citations	46 h-index	89 g-index
130 ext. papers	9,797 ext. citations	12.8 avg, IF	6.16 L-index

#	Paper	IF	Citations
120	Applications of liquid metals in nanotechnology.. *Nanoscale Horizons*, **2022**,	10.8	7
119	Liquid metals: an ideal platform for the synthesis of two-dimensional materials.. *Chemical Society Reviews*, **2022**,	58.5	5
118	Oscillatory bifurcation patterns initiated by seeded surface solidification of liquid metals **2022**, 1, 158-169		4
117	Liquid metal derived MOF functionalized nanoarrays with ultra-wideband electromagnetic absorption. *Journal of Colloid and Interface Science*, **2022**, 606, 1852-1865	9.3	12
116	Interactions between Liquid Metal Droplets and Bacterial, Fungal, and Mammalian Cells (Adv. Mater. Interfaces 7/2022). *Advanced Materials Interfaces*, **2022**, 9, 2270035	4.6	0
115	Integrated liquid metal based two-dimensional Ni□Al2O3 nanoarrays on enhancing electromagnetic wave absorption performance. *Ceramics International*, **2022**, 48, 10066-10078	5.1	3
114	2D Palladium Sulphate for Visible-Light-Driven Optoelectronic Reversible Gas Sensing at Room Temperature. *Small Science*, **2022**, 2, 2100097		5
113	Liquid-Metal-Enabled Mechanical-Energy-Induced CO Conversion. *Advanced Materials*, **2021**, e2105789	24	7
112	High- 2D SbO Made Using a Substrate-Independent and Low-Temperature Liquid-Metal-Based Process. *ACS Nano*, **2021**, 15, 16067-16075	16.7	8
111	Bismuth telluride topological insulator synthesized using liquid metal alloys: Test of NO2 selective sensing. *Applied Materials Today*, **2021**, 22, 100954	6.6	10
110	High-mobility p-type semiconducting two-dimensional □TeO2. *Nature Electronics*, **2021**, 4, 277-283	28.4	23
109	The catalytic decomposition of carbon dioxide on zinc-exchanged Y-zeolite at low temperatures. *Journal of Chemical Technology and Biotechnology*, **2021**, 96, 2675-2680	3.5	
108	Self-Deposition of 2D Molybdenum Sulfides on Liquid Metals. *Advanced Functional Materials*, **2021**, 31, 2005866	15.6	22
107	Ultrathin Ga O Glass: A Large-Scale Passivation and Protection Material for Monolayer WS. *Advanced Materials*, **2021**, 33, e2005732	24	19
106	Polyphenol-Induced Adhesive Liquid Metal Inks for Substrate-Independent Direct Pen Writing. *Advanced Functional Materials*, **2021**, 31, 2007336	15.6	37
105	Unique surface patterns emerging during solidification of liquid metal alloys. *Nature Nanotechnology*, **2021**, 16, 431-439	28.7	46
104	Ultrathin oxysulfide semiconductors from liquid metal: a wet chemical approach. *Journal of Materials Chemistry C*, **2021**, 9, 11815-11826	7.1	7

103	Printable Single-Unit-Cell-Thick Transparent Zinc-Doped Indium Oxides with Efficient Electron Transport Properties. *ACS Nano*, **2021**, 15, 4045-4053	16.7	15
102	Low dimensional materials for glucose sensing. *Nanoscale*, **2021**, 13, 11017-11040	7.7	6
101	The Impact of Water on the Lateral Nanostructure of a Deep Eutectic Solvent–Solid Interface. *Australian Journal of Chemistry*, **2021**,	1.2	2
100	An exploration into two-dimensional metal oxides, and other 2D materials, synthesised via liquid metal printing and transfer techniques. *Dalton Transactions*, **2021**, 50, 7513-7526	4.3	12
99	Influence of direct deposition of dielectric materials on the optical response of monolayer WS2. *Applied Physics Letters*, **2021**, 119, 133106	3.4	2
98	Gallium nitride formation in liquid metal sonication. *Journal of Materials Chemistry C*, **2020**, 8, 16593-16602	7.1	13
97	Nucleation and Growth of Polyaniline Nanofibers onto Liquid Metal Nanoparticles. *Chemistry of Materials*, **2020**, 32, 4808-4819	9.6	30
96	Bi-Sn Catalytic Foam Governed by Nanometallurgy of Liquid Metals. *Nano Letters*, **2020**, 20, 4403-4409	11.5	27
95	Liquid-Metal-Templated Synthesis of 2D Graphitic Materials at Room Temperature. *Advanced Materials*, **2020**, 32, e2001997	24	44
94	Atomically thin TiO nanosheets synthesized using liquid metal chemistry. *Chemical Communications*, **2020**, 56, 4914-4917	5.8	17
93	Liquid Metal-Based Route for Synthesizing and Tuning Gas-Sensing Elements. *ACS Sensors*, **2020**, 5, 1177-1189	9.1	23
92	Combustion Power in your Pocket: A Case for Portable Pyroelectric Energy Conversion. *Matter*, **2020**, 3, 20-22	12.7	1
91	Liquid metal-based synthesis of high performance monolayer SnS piezoelectric nanogenerators. *Nature Communications*, **2020**, 11, 3449	17.4	69
90	Peculiar piezoelectricity of atomically thin planar structures. *Nanoscale*, **2020**, 12, 2875-2901	7.7	25
89	Flexible two-dimensional indium tin oxide fabricated using a liquid metal printing technique. *Nature Electronics*, **2020**, 3, 51-58	28.4	73
88	Antimicrobial Metal Nanomaterials: From Passive to Stimuli-Activated Applications. *Advanced Science*, **2020**, 7, 1902913	13.6	79
87	Antibacterial Liquid Metals: Biofilm Treatment Magnetic Activation. *ACS Nano*, **2020**, 14, 802-817	16.7	83
86	Ordered-vacancy-enabled indium sulphide printed in wafer-scale with enhanced electron mobility. *Materials Horizons*, **2020**, 7, 827-834	14.4	19

85	Broad-spectrum treatment of bacterial biofilms using magneto-responsive liquid metal particles. *Journal of Materials Chemistry B*, **2020**, 8, 10776-10787	7.3	11
84	Two-Step Synthesis of Large-Area 2D Bi2S3 Nanosheets Featuring High In-Plane Anisotropy. *Advanced Materials Interfaces*, **2020**, 7, 2001131	4.6	12
83	Liquid Metals in Catalysis for Energy Applications. *Joule*, **2020**, 4, 2290-2321	27.8	32
82	Nanoscale Probing of Cholesterol-Rich Domains in Single Bilayer Dimyristoyl-Phosphocholine Membranes Using Near-Field Spectroscopic Imaging. *Journal of Physical Chemistry Letters*, **2020**, 11, 9476-9484	6.4	3
81	Ultra-thin lead oxide piezoelectric layers for reduced environmental contamination using a liquid metal-based process. *Journal of Materials Chemistry A*, **2020**, 8, 19434-19443	13	14
80	Emergence of Liquid Metals in Nanotechnology. *ACS Nano*, **2019**, 13, 7388-7395	16.7	169
79	Liquid metals for tuning gas sensitive layers. *Journal of Materials Chemistry C*, **2019**, 7, 6375-6382	7.1	31
78	Investigation of the surface of Ga?Sn?Zn eutectic alloy by the characterisation of oxide nanofilms obtained by the touch-printing method. *Nanomaterials*, **2019**, 9,	5.4	3
77	Room temperature CO reduction to solid carbon species on liquid metals featuring atomically thin ceria interfaces. *Nature Communications*, **2019**, 10, 865	17.4	100
76	Liquid metal core□shell structures functionalised via mechanical agitation: the example of Field's metal. *Journal of Materials Chemistry A*, **2019**, 7, 17876-17887	13	26
75	Liquid metal synthesis of two-dimensional aluminium oxide platelets to reinforce epoxy composites. *Composites Science and Technology*, **2019**, 181, 107708	8.6	11
74	Atomically Thin Ga2S3 from Skin of Liquid Metals for Electrical, Optical, and Sensing Applications. *ACS Applied Nano Materials*, **2019**, 2, 4665-4672	5.6	37
73	Self-Limiting Galvanic Growth of MnO2 Monolayers on a Liquid Metal□Applied to Photocatalysis. *Advanced Functional Materials*, **2019**, 29, 1901649	15.6	81
72	Exciton-Driven Chemical Sensors Based on Excitation-Dependent Photoluminescent Two-Dimensional SnS. *ACS Applied Materials & Interfaces*, **2019**, 11, 42462-42468	9.5	24
71	Advantages of eutectic alloys for creating catalysts in the realm of nanotechnology-enabled metallurgy. *Nature Communications*, **2019**, 10, 4645	17.4	39
70	2D SnO/In2O3 van der Waals Heterostructure Photodetector Based on Printed Oxide Skin of Liquid Metals. *Advanced Materials Interfaces*, **2019**, 6, 1900007	4.6	42
69	Wafer-Sized Ultrathin Gallium and Indium Nitride Nanosheets through the Ammonolysis of Liquid Metal Derived Oxides. *Journal of the American Chemical Society*, **2019**, 141, 104-108	16.4	62
68	Liquid metals: fundamentals and applications in chemistry. *Chemical Society Reviews*, **2018**, 47, 4073-4111	38.5	432

67	Degenerately Hydrogen Doped Molybdenum Oxide Nanodisks for Ultrasensitive Plasmonic Biosensing. *Advanced Functional Materials*, **2018**, 28, 1706006	15.6	84
66	Evolution of 2D tin oxides on the surface of molten tin. *Chemical Communications*, **2018**, 54, 2102-2105	5.8	17
65	BiO monolayers from elemental liquid bismuth. *Nanoscale*, **2018**, 10, 15615-15623	7.7	36
64	Exploring electric field assisted van der Waals weakening of stratified crystals. *Applied Materials Today*, **2018**, 12, 359-365	6.6	2
63	Liquid Phase Acoustic Wave Exfoliation of Layered MoS2: Critical Impact of Electric Field in Efficiency. *Chemistry of Materials*, **2018**, 30, 5593-5601	9.6	27
62	Two dimensional PbMoO4: A photocatalytic material derived from a naturally non-layered crystal. *Nano Energy*, **2018**, 49, 237-246	17.1	37
61	Magnetic noise from ultrathin abrasively deposited materials on diamond. *Physical Review Materials* , **2018**, 2,	3.2	9
60	Laser exposure induced alteration of WS 2 monolayers in the presence of ambient moisture. *2D Materials*, **2018**, 5, 015013	5.9	26
59	Two-Dimensional Transition Metal Oxide and Chalcogenide-Based Photocatalysts. *Nano-Micro Letters*, **2018**, 10, 23	19.5	182
58	Exfoliation Behavior of van der Waals Strings: Case Study of BiS. *ACS Applied Materials & Interfaces*, **2018**, 10, 42603-42611	9.5	23
57	Green Synthesis of Low-Dimensional Aluminum Oxide Hydroxide and Oxide Using Liquid Metal Reaction Media: Ultrahigh Flux Membranes. *Advanced Functional Materials*, **2018**, 28, 1804057	15.6	51
56	Printing two-dimensional gallium phosphate out of liquid metal. *Nature Communications*, **2018**, 9, 3618	17.4	70
55	Wafer-scale two-dimensional semiconductors from printed oxide skin of liquid metals. *Nature Communications*, **2017**, 8, 14482	17.4	172
54	Patterned films from exfoliated two-dimensional transition metal dichalcogenides assembled at a liquid□quid interface. *Journal of Materials Chemistry C*, **2017**, 5, 6937-6944	7.1	10
53	Surface Water Dependent Properties of Sulfur-Rich Molybdenum Sulfides: Electrolyteless Gas Phase Water Splitting. *ACS Nano*, **2017**, 11, 6782-6794	16.7	38
52	Highly active two dimensional □MoO3□ for the electrocatalytic hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2017**, 5, 24223-24231	13	118
51	Wafer-Scale Synthesis of Semiconducting SnO Monolayers from Interfacial Oxide Layers of Metallic Liquid Tin. *ACS Nano*, **2017**, 11, 10974-10983	16.7	80
50	A liquid metal reaction environment for the room-temperature synthesis of atomically thin metal oxides. *Science*, **2017**, 358, 332-335	33.3	384

49	Sonication-Assisted Synthesis of Gallium Oxide Suspensions Featuring Trap State Absorption: Test of Photochemistry. *Advanced Functional Materials*, **2017**, 27, 1702295	15.6	78
48	Molybdenum Oxides - From Fundamentals to Functionality. *Advanced Materials*, **2017**, 29, 1701619	24	298
47	Quasi physisorptive two dimensional tungsten oxide nanosheets with extraordinary sensitivity and selectivity to NO. *Nanoscale*, **2017**, 9, 19162-19175	7.7	61
46	A Gallium-Based Magnetocaloric Liquid Metal Ferrofluid. *Nano Letters*, **2017**, 17, 7831-7838	11.5	67
45	Two dimensional tungsten oxide nanosheets with unprecedented selectivity and sensitivity to NO2 **2017**,		1
44	Sonication synthesis of micro-sized silver nanoparticle/oleic acid liquid marbles: A novel SERS sensing platform. *Sensors and Actuators B: Chemical*, **2016**, 223, 52-58	8.5	15
43	Excitation dependent bidirectional electron transfer in phthalocyanine-functionalised MoS nanosheets. *Nanoscale*, **2016**, 8, 16276-16283	7.7	46
42	Liquid Exfoliation of Layered Transition Metal Dichalcogenides for Biological Applications. *Current Protocols in Chemical Biology*, **2016**, 8, 97-108	1.8	13
41	Exfoliation Solvent Dependent Plasmon Resonances in Two-Dimensional Sub-Stoichiometric Molybdenum Oxide Nanoflakes. *ACS Applied Materials & Interfaces*, **2016**, 8, 3482-93	9.5	91
40	Intercalated 2D MoS2 Utilizing a Simulated Sun Assisted Process: Reducing the HER Overpotential. *Journal of Physical Chemistry C*, **2016**, 120, 2447-2455	3.8	48
39	Exfoliation of Quasi-Stratified Bi2S3 Crystals into Micron-Scale Ultrathin Corrugated Nanosheets. *Chemistry of Materials*, **2016**, 28, 8942-8950	9.6	22
38	Ionic imbalance induced self-propulsion of liquid metals. *Nature Communications*, **2016**, 7, 12402	17.4	116
37	High-Performance Field Effect Transistors Using Electronic Inks of 2D Molybdenum Oxide Nanoflakes. *Advanced Functional Materials*, **2016**, 26, 91-100	15.6	140
36	Enhanced quantum efficiency from a mosaic of two dimensional MoS2 formed onto aminosilane functionalised substrates. *Nanoscale*, **2016**, 8, 12258-66	7.7	15
35	Indium tin oxide as a semiconductor material in efficient p-type dye-sensitized solar cells. *NPG Asia Materials*, **2016**, 8, e305-e305	10.3	43
34	Two dimensional and layered transition metal oxides. *Applied Materials Today*, **2016**, 5, 73-89	6.6	313
33	2D WS2/carbon dot hybrids with enhanced photocatalytic activity. *Journal of Materials Chemistry A*, **2016**, 4, 13563-13571	13	99
32	Reductive exfoliation of substoichiometric MoS2 bilayers using hydrazine salts. *Nanoscale*, **2016**, 8, 15252-61	7.7	22

31	Dual-Function Smart Electrolyte for Dye-Sensitized Solar Cells: 5-Mercaptotetrazoles as Redox Mediator and Corrosion Repressor. *Journal of Physical Chemistry C*, **2015**, 119, 19613-19618	3.8	13
30	Application of the Tris(acetylacetonato)iron(III)/(II) Redox Couple in p-Type Dye-Sensitized Solar Cells. *Angewandte Chemie*, **2015**, 127, 3829-3833	3.6	21
29	Light driven growth of silver nanoplatelets on 2D MoS2 nanosheet templates. *Journal of Materials Chemistry C*, **2015**, 3, 4771-4778	7.1	27
28	Thiolate/Disulfide Based Electrolytes for p-type and Tandem Dye-Sensitized Solar Cells. *Electrochimica Acta*, **2015**, 182, 458-463	6.7	31
27	Physisorption-Based Charge Transfer in Two-Dimensional SnS2 for Selective and Reversible NO2 Gas Sensing. *ACS Nano*, **2015**, 9, 10313-23	16.7	479
26	Two-step synthesis of luminescent MoS(2)-ZnS hybrid quantum dots. *Nanoscale*, **2015**, 7, 16763-72	7.7	48
25	Investigation of Two-Solvent Grinding-Assisted Liquid Phase Exfoliation of Layered MoS2. *Chemistry of Materials*, **2015**, 27, 53-59	9.6	160
24	Dominating Energy Losses in NiO p-Type Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2015**, 5, 1401387	21.8	67
23	Two-Dimensional Transition Metal Dichalcogenides in Biosystems. *Advanced Functional Materials*, **2015**, 25, 5086-5099	15.6	256
22	2D MoS2 PDMS Nanocomposites for NO2 Separation. *Small*, **2015**, 11, 5035-40	11	48
21	Electronic Tuning of 2D MoS2 through Surface Functionalization. *Advanced Materials*, **2015**, 27, 6225-9	24	158
20	Plasmon resonances of highly doped two-dimensional MoS *Nano Letters*, **2015**, 15, 883-90	11.5	145
19	Application of the tris(acetylacetonato)iron(III)/(II) redox couple in p-type dye-sensitized solar cells. *Angewandte Chemie - International Edition*, **2015**, 54, 3758-62	16.4	169
18	Two solvent grinding sonication method for the synthesis of two-dimensional tungsten disulphide flakes. *Chemical Communications*, **2015**, 51, 3770-3	5.8	50
17	Introducing manganese complexes as redox mediators for dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2014**, 16, 12021-8	3.6	43
16	Substoichiometric two-dimensional molybdenum oxide flakes: a plasmonic gas sensing platform. *Nanoscale*, **2014**, 6, 12780-91	7.7	65
15	Improved Photovoltages for p-Type Dye-Sensitized Solar Cells Using CuCrO2 Nanoparticles. *Journal of Physical Chemistry C*, **2014**, 118, 16375-16379	3.8	62
14	Highly Efficient p-Type Dye-Sensitized Solar Cells based on Tris(1,2-diaminoethane)Cobalt(II)/(III) Electrolytes. *Angewandte Chemie*, **2013**, 125, 630-633	3.6	43

13	Highly efficient p-type dye-sensitized solar cells based on tris(1,2-diaminoethane)cobalt(II)/(III) electrolytes. *Angewandte Chemie - International Edition*, **2013**, 52, 602-5	16.4	163
12	Light-driven transformation processes of anisotropic silver nanoparticles. *ACS Nano*, **2013**, 7, 5911-21	16.7	51
11	Infrared sensitizers in titania-based dye-sensitized solar cells using a dimethylferrocene electrolyte. *ChemSusChem*, **2013**, 6, 2056-60	8.3	5
10	Aqueous dye-sensitized solar cell electrolytes based on the ferricyanide-ferrocyanide redox couple. *Advanced Materials*, **2012**, 24, 1222-5	24	105
9	Oxygen-induced doping of spiro-MeOTAD in solid-state dye-sensitized solar cells and its impact on device performance. *Nano Letters*, **2012**, 12, 4925-31	11.5	252
8	Dye regeneration kinetics in dye-sensitized solar cells. *Journal of the American Chemical Society*, **2012**, 134, 16925-8	16.4	202
7	Ein solider Fortschritt f□Farbstoffsolarzellen. *Angewandte Chemie*, **2012**, 124, 10601-10603	3.6	2
6	A solid advancement for dye-sensitized solar cells. *Angewandte Chemie - International Edition*, **2012**, 51, 10451-2	16.4	31
5	Dye regeneration and charge recombination in dye-sensitized solar cells with ferrocene derivatives as redox mediators. *Energy and Environmental Science*, **2012**, 5, 7090	35.4	138
4	High-efficiency dye-sensitized solar cells with ferrocene-based electrolytes. *Nature Chemistry*, **2011**, 3, 211-15	17.6	512
3	A new family of substituted triethoxysilyl iodides as organic iodide sources for dye-sensitised solar cells. *Journal of Materials Chemistry*, **2010**, 20, 3694		11
2	Direct conversion of CO2 to solid carbon by Ga-based liquid metals. *Energy and Environmental Science*,	35.4	8
1	Interactions between Liquid Metal Droplets and Bacterial, Fungal, and Mammalian Cells. *Advanced Materials Interfaces*,2102113	4.6	2