David J Lewis

List of Publications by Year in Descending Order

97 papers	3,557 citations	30 h-index	58 g-index
107 ext. papers	4,084 ext. citations	6.6 avg, IF	5.58 L-index

#	Paper	IF	Citations
97	Sustainable ITO films with reduced indium content deposited by AACVD. *Journal of Materials Chemistry C*, **2022**, 10, 579-589	7.1	0
96	Tunable structural, morphological and optical properties of undoped, Mn, Ni and Ag-doped CuInS2 thin films prepared by AACVD. *Materials Science in Semiconductor Processing*, **2022**, 137, 106224	4.3	0
95	Synthesis of ternary copper antimony sulfide via solventless thermolysis or aerosol assisted chemical vapour deposition using metal dithiocarbamates.. *Scientific Reports*, **2022**, 12, 5627	4.9	2
94	Structural Investigations of □MnS Nanocrystals and Thin Films Synthesized from Manganese(II) Xanthates by Hot Injection, Solvent-Less Thermolysis, and Doctor Blade Routes. *ACS Omega*, **2021**, 6, 27716-27725	3.9	
93	Synthesis, X-ray Single-Crystal Structural Characterization, and Thermal Analysis of Bis(O-alkylxanthato)Cd(II) and Bis(O-alkylxanthato)Zn(II) Complexes Used as Precursors for Cadmium and Zinc Sulfide Thin Films. *Inorganic Chemistry*, **2021**, 60, 7573-7583	5.1	2
92	Synthesis of molybdenum-doped rhenium disulfide alloy using aerosol-assisted chemical vapour deposition. *Materials Science in Semiconductor Processing*, **2021**, 127, 105718	4.3	1
91	Intrinsic effects of thickness, surface chemistry and electroactive area on nanostructured MoS2 electrodes with superior stability for hydrogen evolution. *Electrochimica Acta*, **2021**, 382, 138257	6.7	4
90	A novel and potentially scalable CVD-based route towards SnO2:Mo thin films as transparent conducting oxides. *Journal of Materials Science*, **2021**, 56, 15921-15936	4.3	4
89	Scalable synthesis of Cu-Sb-S phases from reactive melts of metal xanthates and effect of cationic manipulation on structural and optical properties. *Scientific Reports*, **2021**, 11, 1887	4.9	5
88	Bioinspired scaffolds that sequester lead ions in physically damaged high efficiency perovskite solar cells. *Chemical Communications*, **2021**, 57, 994-997	5.8	11
87	Preparation of solution processed photodetectors comprised of two-dimensional tin(ii) sulfide nanosheet thin films assembled the Langmuir-Blodgett method.. *RSC Advances*, **2021**, 11, 26813-26819	3.7	0
86	A Review of the Synthesis, Properties, and Applications of Bulk and Two-Dimensional Tin (II) Sulfide (SnS). *Applied Sciences (Switzerland)*, **2021**, 11, 2062	2.6	8
85	Direct synthesis of nanostructured silver antimony sulfide powders from metal xanthate precursors. *Scientific Reports*, **2021**, 11, 3053	4.9	2
84	Testing the Efficacy of the Synthesis of Iron Antimony Sulfide Powders from Single Source Precursors. *Inorganics*, **2021**, 9, 61	2.9	1
83	Molecular Precursor Route to Bournonite (CuPbSbS) Thin Films and Powders. *Inorganic Chemistry*, **2021**, 60, 13691-13698	5.1	3
82	High-Performance Nanostructured MoS2 Electrodes with Spontaneous Ultralow Gold Loading for Hydrogen Evolution. *Journal of Physical Chemistry C*, **2021**, 125, 20940-20951	3.8	2
81	Optimization of superhydrophobicity at the surface of iron sulfide thin films by a wet chemical approach. *Materials Research Bulletin*, **2021**, 144, 111476	5.1	2

80	Tunable structural and optical properties of CuInS colloidal quantum dots as photovoltaic absorbers.. *RSC Advances*, **2021**, 11, 21351-21358	3.7	1
79	Flexible nanoporous activated carbon for adsorption of organics from industrial effluents. *Nanoscale*, **2021**, 13, 15311-15323	7.7	7
78	Synthesis of indium oxide microparticles using aerosol assisted chemical vapour deposition.. *RSC Advances*, **2020**, 10, 22487-22490	3.7	2
77	Surface Engineering of Ceramic Nanomaterials for Separation of Oil/Water Mixtures. *Frontiers in Chemistry*, **2020**, 8, 578	5	6
76	Scalable and Universal Route for the Deposition of Binary, Ternary, and Quaternary Metal Sulfide Materials from Molecular Precursors. *ACS Applied Energy Materials*, **2020**, 3, 1952-1961	6.1	16
75	Thin films of formamidinium lead iodide (FAPI) deposited using aerosol assisted chemical vapour deposition (AACVD). *Scientific Reports*, **2020**, 10, 22245	4.9	2
74	Heterometallic 3d-4f Complexes as Air-Stable Molecular Precursors in Low Temperature Syntheses of Stoichiometric Rare-Earth Orthoferrite Powders. *Inorganic Chemistry*, **2020**, 59, 15796-15806	5.1	3
73	Rapid and Low-Temperature Molecular Precursor Approach toward Ternary Layered Metal Chalcogenides and Oxides: Mo W S and Mo W O Alloys (0 ≤ ≤ 1). *Chemistry of Materials*, **2020**, 32, 7895-7907	9.6	7
72	Paul O'Brien. 22 January 1954–16 October 2018. *Biographical Memoirs of Fellows of the Royal Society*, **2020**, 69, 443-466	0.1	1
71	Synthetic 2-D lead tin sulfide nanosheets with tuneable optoelectronic properties from a potentially scalable reaction pathway. *Chemical Science*, **2019**, 10, 1035-1045	9.4	7
70	Synthesis of iron sulfide thin films and powders from new xanthate precursors. *Journal of Crystal Growth*, **2019**, 522, 175-182	1.6	4
69	Solid solutions of M2−xIn2xS3 (M = Bi or Sb) by solventless thermolysis. *Journal of Materials Chemistry C*, **2019**, 7, 5112-5121	7.1	6
68	Formation and Healing of Defects in Atomically Thin GaSe and InSe. *ACS Nano*, **2019**, 13, 5112-5123	16.7	23
67	Accessing -GaS by solventless thermolysis of gallium xanthates: a low-temperature limit for crystalline products. *Dalton Transactions*, **2019**, 48, 15605-15612	4.3	6
66	A molecular precursor route to quaternary chalcogenide CFTS (CuFeSnS) powders as potential solar absorber materials.. *RSC Advances*, **2019**, 9, 24146-24153	3.7	12
65	Room-Temperature Production of Nanocrystalline Molybdenum Disulfide (MoS) at the Liquid-Liquid Interface. *Chemistry of Materials*, **2019**, 31, 5384-5391	9.6	13
64	Air-Stable Methylammonium Lead Iodide Perovskite Thin Films Fabricated via Aerosol-Assisted Chemical Vapor Deposition from a Pseudohalide Pb(SCN)2 Precursor. *ACS Applied Energy Materials*, **2019**, 2, 6012-6022	6.1	11
63	Renewable Adsorbent for the Separation of Surfactant-Stabilized Oil in Water Emulsions Based on Nanostructured Sawdust. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 18935-18942	8.3	16

62	Important Phase Control of Indium Sulfide Nanomaterials by Choice of Indium(III) Xanthate Precursor and Thermolysis Temperature. *European Journal of Inorganic Chemistry*, **2019**, 2019, 1421-1432	2.3	7
61	Chemical vapor deposition of tin sulfide from diorganotin(IV) dixanthates. *Journal of Materials Science*, **2019**, 54, 2315-2323	4.3	16
60	Supercapacitor Electrodes from the in Situ Reaction between Two-Dimensional Sheets of Black Phosphorus and Graphene Oxide. *ACS Applied Materials & Interfaces*, **2018**, 10, 10330-10338	9.5	38
59	Fully printed high performance humidity sensors based on two-dimensional materials. *Nanoscale*, **2018**, 10, 5599-5606	7.7	101
58	Black phosphorus with near-superhydrophobic properties and long-term stability in aqueous media. *Chemical Communications*, **2018**, 54, 3831-3834	5.8	22
57	On the phase control of CuInS nanoparticles from Cu-/In-xanthates. *Dalton Transactions*, **2018**, 47, 5304-5309	4.3	14
56	Exploiting Inherent Instability of 2D Black Phosphorus for Controlled Phosphate Release from Blow-Spun Poly(lactide-co-glycolide) Nanofibers. *ACS Applied Nano Materials*, **2018**, 1, 4190-4197	5.6	10
55	Ambient-air-stable inorganic Cs2SnI6 double perovskite thin films via aerosol-assisted chemical vapour deposition. *Journal of Materials Chemistry A*, **2018**, 6, 11205-11214	13	56
54	Synthesis of nanostructured powders and thin films of iron sulfide from molecular precursors.. *RSC Advances*, **2018**, 8, 29096-29103	3.7	13
53	Chemical vapour deposition of chromium-doped tungsten disulphide thin films on glass and steel substrates from molecular precursors. *Journal of Materials Chemistry C*, **2018**, 6, 9537-9544	7.1	6
52	Direct synthesis of MoS or MoOvia thermolysis of a dialkyl dithiocarbamato molybdenum(iv) complex. *Chemical Communications*, **2018**, 55, 99-102	5.8	21
51	Full compositional control of PbSSe thin films by the use of acylchalcogourato lead(ii) complexes as precursors for AACVD. *Dalton Transactions*, **2018**, 47, 16938-16943	4.3	5
50	Synthesis of Bi2□xSb2xS3 (0 □x □1) solid solutions from solventless thermolysis of metal xanthate precursors. *Journal of Materials Chemistry C*, **2018**, 6, 12652-12659	7.1	19
49	Ricinoleic Acid as a Green Alternative to Oleic Acid in the Synthesis of Doped Nanocrystals. *ChemistrySelect*, **2018**, 3, 13548-13552	1.8	1
48	Decoupling Structure and Composition of CH3NH3PbI3□Brx Films Prepared by Combined One-Step and Two-Step Deposition. *ACS Applied Energy Materials*, **2018**, 1, 5567-5578	6.1	5
47	Formation and Characterization of Model Iron Sulfide Scales with Disulfides and Thiols on Steel Pipeline Materials by an Aerosol-Assisted Chemical Vapor Method. *Energy & Fuels*, **2017**, 31, 2496-2500	4.1	
46	Single-Source Precursor for Tungsten Dichalcogenide Thin Films: Mo1□WxS2 (0 □x □1) Alloys by Aerosol-Assisted Chemical Vapor Deposition. *Chemistry of Materials*, **2017**, 29, 3858-3862	9.6	19
45	In situ investigation of degradation at organometal halide perovskite surfaces by X-ray photoelectron spectroscopy at realistic water vapour pressure. *Chemical Communications*, **2017**, 53, 5231-5234	5.8	57

44	New insights into polymer mediated formation of anatase mesocrystals. *CrystEngComm*, **2017**, 19, 3281-3287	3.9	9
43	Exploring the versatility of liquid phase exfoliation: producing 2D nanosheets from talcum powder, cat litter and beach sand. *2D Materials*, **2017**, 4, 025054	5.9	29
42	A Free-Standing and Self-Healable 2D Supramolecular Material Based on Hydrogen Bonding: A Nanowire Array with Sub-2-nm Resolution. *Small*, **2017**, 13, 1604077	11	19
41	Shining a light on transition metal chalcogenides for sustainable photovoltaics. *Chemical Science*, **2017**, 8, 4177-4187	9.4	66
40	Property Self-Optimization During Wear of MoS. *ACS Applied Materials & Interfaces*, **2017**, 9, 1953-1958	9.5	10
39	Solution processing of two-dimensional black phosphorus. *Chemical Communications*, **2017**, 53, 1445-1458	5.8	55
38	Tailoring iridium luminescence and gold nanoparticle size for imaging of microvascular blood flow. *Nanomedicine*, **2017**, 12, 2725-2740	5.6	10
37	The influence of precursor on rhenium incorporation into Re-doped MoS2 (Mo1−xRexS2) thin films by aerosol-assisted chemical vapour deposition (AACVD). *Journal of Materials Chemistry C*, **2017**, 5, 9044-9052	7.1	13
36	High magnetic relaxivity in a fluorescent CdSe/CdS/ZnS quantum dot functionalized with MRI contrast molecules. *Chemical Communications*, **2017**, 53, 10500-10503	5.8	13
35	Dual Functionalization of Liquid-Exfoliated Semiconducting 2H-MoS2 with Lanthanide Complexes Bearing Magnetic and Luminescence Properties. *Advanced Functional Materials*, **2017**, 27, 1703646	15.6	20
34	Updating the road map to metal-halide perovskites for photovoltaics. *Journal of Materials Chemistry A*, **2017**, 5, 17135-17150	13	23
33	Chemical vapour deposition of rhenium disulfide and rhenium-doped molybdenum disulfide thin films using single-source precursors. *Journal of Materials Chemistry C*, **2016**, 4, 2312-2318	7.1	42
32	Synthesis, Properties, and Applications of Transition Metal-Doped Layered Transition Metal Dichalcogenides. *Chemistry of Materials*, **2016**, 28, 1965-1974	9.6	304
31	Heterocyclic dithiocarbamato-iron(III) complexes: single-source precursors for aerosol-assisted chemical vapour deposition (AACVD) of iron sulfide thin films. *Dalton Transactions*, **2016**, 45, 2647-55	4.3	43
30	Sequential bottom-up and top-down processing for the synthesis of transition metal dichalcogenide nanosheets: the case of rhenium disulfide (ReS2). *Chemical Communications*, **2016**, 52, 7878-81	5.8	36
29	On the stability of surfactant-stabilised few-layer black phosphorus in aqueous media. *RSC Advances*, **2016**, 6, 86955-86958	3.7	30
28	Diatom Frustules as a Biomineralized Scaffold for the Growth of Molybdenum Disulfide Nanosheets. *Chemistry of Materials*, **2016**, 28, 5582-5586	9.6	13
27	Nanostructured Aptamer-Functionalized Black Phosphorus Sensing Platform for Label-Free Detection of Myoglobin, a Cardiovascular Disease Biomarker. *ACS Applied Materials & Interfaces*, **2016**, 8, 22860-8	9.5	164

26	Transition metal doped pyrite (FeS2) thin films: structural properties and evaluation of optical band gap energies. *Journal of Materials Chemistry C*, **2015**, 3, 12068-12076	7.1	46
25	Morphology and band gap controlled AACVD of CdSe and CdSxSe1⊠ thin films using novel single source precursors: Bis(diethyldithio/diselenocarbamato)cadmium(II). *Materials Science in Semiconductor Processing*, **2015**, 40, 848-854	4.3	16
24	Tin(II) Sulfide (SnS) Nanosheets by Liquid-Phase Exfoliation of Herzenbergite: IV-VI Main Group Two-Dimensional Atomic Crystals. *Journal of the American Chemical Society*, **2015**, 137, 12689-96	16.4	187
23	Mechanical Properties of Molybdenum Disulfide and the Effect of Doping: An in Situ TEM Study. *ACS Applied Materials & Interfaces*, **2015**, 7, 20829-34	9.5	41
22	Thin films of tin(II) sulphide (SnS) by aerosol-assisted chemical vapour deposition (AACVD) using tin(II) dithiocarbamates as single-source precursors. *Journal of Crystal Growth*, **2015**, 415, 93-99	1.6	65
21	Thin Films of Molybdenum Disulfide Doped with Chromium by Aerosol-Assisted Chemical Vapor Deposition (AACVD). *Chemistry of Materials*, **2015**, 27, 1367-1374	9.6	62
20	Synthesis of pyrite thin films and transition metal doped pyrite thin films by aerosol-assisted chemical vapour deposition. *New Journal of Chemistry*, **2015**, 39, 1013-1021	3.6	36
19	Ambient pressure aerosol-assisted chemical vapour deposition of (CH₃NH₃)PbBr₃an inorganic-organic perovskite important in photovoltaics. *Chemical Communications*, **2014**, 50, 6319-21	5.8	67
18	Lanthanide-coated gold nanoparticles for biomedical applications. *Coordination Chemistry Reviews*, **2014**, 273-274, 213-225	23.2	34
17	De novo design of Ln(III) coiled coils for imaging applications. *Journal of the American Chemical Society*, **2014**, 136, 1166-9	16.4	44
16	Production of few-layer phosphorene by liquid exfoliation of black phosphorus. *Chemical Communications*, **2014**, 50, 13338-41	5.8	556
15	On the interaction of copper(II) with disulfiram. *Chemical Communications*, **2014**, 50, 13334-7	5.8	69
14	Routes to tin chalcogenide materials as thin films or nanoparticles: a potentially important class of semiconductor for sustainable solar energy conversion. *Inorganic Chemistry Frontiers*, **2014**, 1, 577-598	6.8	72
13	Luminescent gold surfaces for sensing and imaging: patterning of transition metal probes. *ACS Applied Materials & Interfaces*, **2014**, 6, 11598-608	9.5	9
12	Bis(piperidinedithiocarbamato)pyridinecadmium(II) as a single-source precursor for the synthesis of CdS nanoparticles and aerosol-assisted chemical vapour deposition (AACVD) of CdS thin films. *New Journal of Chemistry*, **2014**, 38, 6073-6080	3.6	46
11	Silica nanoparticles for micro-particle imaging velocimetry: fluorosurfactant improves nanoparticle stability and brightness of immobilized iridium(III) complexes. *Langmuir*, **2013**, 29, 14701-8	4	12
10	Evaluation of quinoline as a remote sensitiser for red and near-infrared emissive lanthanide(III) ions in solution and the solid state. *Dalton Transactions*, **2012**, 41, 13138-46	4.3	24
9	pH-controlled delivery of luminescent europium coated nanoparticles into platelets. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 1862-7	11.5	73

List of Publications

8	Controlled assembly of heterometallic lanthanide(III) macrocycles: incorporation of photoactive and highly paramagnetic metal centres within a single complex. *Supramolecular Chemistry*, **2012**, 24, 135-142	1.8	7
7	Luminescent ruthenium(II) tris-bipyridyl complex caged in nanoscale silica for particle velocimetry studies in microchannels. *Measurement Science and Technology*, **2012**, 23, 084004	2	4
6	Purely heterometallic lanthanide(III) macrocycles through controlled assembly of disulfide bonds for dual color emission. *Journal of the American Chemical Society*, **2011**, 133, 1033-43	16.4	96
5	Intracellular synchrotron nanoimaging and DNA damage/genotoxicity screening of novel lanthanide-coated nanovectors. *Nanomedicine*, **2010**, 5, 1547-57	5.6	33
4	Luminescent nanobeads: attachment of surface reactive Eu(III) complexes to gold nanoparticles. *Chemical Communications*, **2006**, 1433-5	5.8	122
3	Highly luminescent, triple- and quadruple-stranded, dinuclear Eu, Nd, and Sm(III) lanthanide complexes based on bis-diketonate ligands. *Journal of the American Chemical Society*, **2004**, 126, 9413-24	16.4	323
2	Nanoscale Chevrel-Phase Mo6S8 Prepared by a Molecular Precursor Approach for Highly Efficient Electrocatalysis of the Hydrogen Evolution Reaction in Acidic Media. *ACS Applied Energy Materials*,	6.1	3
1	A review of two-dimensional nanomaterials beyond graphene. *SPR Nanoscience*,108-141	3	2