

# Alexander S Walton

## List of Publications by Year in descending order

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60  
papers

2,016  
citations

257450

24  
h-index

243625

44  
g-index

60  
all docs

60  
docs citations

60  
times ranked

3849  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanostructured Aptamer-Functionalized Black Phosphorus Sensing Platform for Label-Free Detection of Myoglobin, a Cardiovascular Disease Biomarker. ACS Applied Materials & Interfaces, 2016, 8, 22860-22868.	8.0	208
2	<i>In Situ</i> Detection of Active Edge Sites in Single-Layer MoS <sub>2</sub> Catalysts. ACS Nano, 2015, 9, 9322-9330.	14.6	144
3	Structure and Electronic Properties of <i>In Situ</i> Synthesized Single-Layer MoS <sub>2</sub> on a Gold Surface. ACS Nano, 2014, 8, 6788-6796.	14.6	136
4	Synthesis of High-Surface-Area Platinum Nanotubes Using a Viral Template. Advanced Functional Materials, 2010, 20, 1295-1300.	14.9	118
5	Edge reactivity and water-assisted dissociation on cobalt oxide nanoislands. Nature Communications, 2017, 8, 14169.	12.8	117
6	MoS <sub>2</sub> nanoparticle morphologies in hydrodesulfurization catalysis studied by scanning tunneling microscopy. Journal of Catalysis, 2013, 308, 306-318.	6.2	101
7	Ambient-air-stable inorganic Cs <sub>2</sub> SnI <sub>6</sub> double perovskite thin films <i>via</i> aerosol-assisted chemical vapour deposition. Journal of Materials Chemistry A, 2018, 6, 11205-11214.	10.3	85
8	Interface Controlled Oxidation States in Layered Cobalt Oxide Nanoislands on Gold. ACS Nano, 2015, 9, 2445-2453.	14.6	78
9	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.	4.1	78
10	Four-probe electrical transport measurements on individual metallic nanowires. Nanotechnology, 2007, 18, 065204.	2.6	71
11	Origin of significant visible-light absorption properties of Mn-doped TiO <sub>2</sub> thin films. Acta Materialia, 2012, 60, 1974-1985.	7.9	56
12	Investigation of the Differential Capacitance of Highly Ordered Pyrolytic Graphite as a Model Material of Graphene. Langmuir, 2016, 32, 11448-11455.	3.5	43
13	Factors that determine and limit the resistivity of high-quality individual ZnO nanowires. Nanotechnology, 2013, 24, 435706.	2.6	39
14	Gold-supported two-dimensional cobalt oxyhydroxide (CoOOH) and multilayer cobalt oxide islands. Physical Chemistry Chemical Physics, 2017, 19, 2425-2433.	2.8	38
15	Oleylamine Aging of PtNi Nanoparticles Giving Enhanced Functionality for the Oxygen Reduction Reaction. Nano Letters, 2021, 21, 3989-3996.	9.1	37
16	Vanadium(III) phenoximine complexes for ethylene or $\epsilon$ -caprolactone polymerization: mononuclear versus binuclear pre-catalysts. Catalysis Science and Technology, 2013, 3, 152-160.	4.1	36
17	Understanding the CO Oxidation on Pt Nanoparticles Supported on MOFs by <i>Operando</i> XPS. ChemCatChem, 2018, 10, 4238-4242.	3.7	35
18	Controlling the Electrical Transport Properties of Nanocontacts to Nanowires. Nano Letters, 2015, 15, 4248-4254.	9.1	34

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19	Four-probe electrical characterization of Pt-coated TMV-based nanostructures. <i>Nanotechnology</i> , 2008, 19, 165704.	2.6	32
20	Low-Temperature Preparation of Single Crystal Titanium Carbide Nanofibers in Molten Salts. <i>Crystal Growth and Design</i> , 2011, 11, 3122-3129.	3.0	30
21	Comparative Analysis of Cobalt Oxide Nanoisland Stability and Edge Structures on Three Related Noble Metal Surfaces: Au(111), Pt(111) and Ag(111). <i>Topics in Catalysis</i> , 2017, 60, 503-512.	2.8	29
22	Vanadyl calix[6]arene complexes: synthesis, structural studies and ethylene homo-(co-)polymerization capability. <i>Dalton Transactions</i> , 2015, 44, 12292-12303.	3.3	27
23	Phase Transitions of Cobalt Oxide Bilayers on Au(111) and Pt(111): The Role of Edge Sites and Substrate Interactions. <i>Journal of Physical Chemistry B</i> , 2018, 122, 561-571.	2.6	26
24	Use of titanocalix[4]arenes in the ring opening polymerization of cyclic esters. <i>Catalysis Science and Technology</i> , 2020, 10, 1619-1639.	4.1	25
25	Optical Study of p-Doping in GaAs Nanowires for Low-Threshold and High-Yield Lasing. <i>Nano Letters</i> , 2019, 19, 362-368.	9.1	24
26	An investigation of the growth of bismuth whiskers and nanowires during physical vapour deposition. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 435304.	2.8	22
27	Highly Active, Thermally Stable, Ethylene-Polymerisation Pre-Catalysts Based on Niobium/Tantalum-Imine Systems. <i>Chemistry - A European Journal</i> , 2013, 19, 8884-8899.	3.3	22
28	Zirconium as a Boron Sink in Crystalline CoFeB/MgO/CoFeB Magnetic Tunnel Junctions. <i>Applied Physics Express</i> , 2011, 4, 013002.	2.4	19
29	The offset droplet: a new methodology for studying the solid/water interface using x-ray photoelectron spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 454001.	1.8	17
30	Formation of a U(VI)-Persulfide Complex during Environmentally Relevant Sulfidation of Iron (Oxyhydr)oxides. <i>Environmental Science &amp; Technology</i> , 2020, 54, 129-136.	10.0	17
31	Room-Temperature Production of Nanocrystalline Molybdenum Disulfide (MoS <sub>2</sub> ) at the Liquid-Liquid Interface. <i>Chemistry of Materials</i> , 2019, 31, 5384-5391.	6.7	16
32	Role of Alkali Cations in Stabilizing Mixed-Cation Perovskites to Thermal Stress and Moisture Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 43573-43586.	8.0	16
33	An Exemplar Imidazoline Surfactant for Corrosion Inhibitor Studies: Synthesis, Characterization, and Physicochemical Properties. <i>Journal of Surfactants and Detergents</i> , 2020, 23, 225-234.	2.1	15
34	Hydrogenation of benzoic acid to benzyl alcohol over Pt/SnO <sub>2</sub> . <i>Applied Catalysis A: General</i> , 2020, 593, 117420.	4.3	15
35	Modulating Crystallization in Semitransparent Perovskite Films Using Submicrometer Spongelike Polymer Colloid Particles to Improve Solar Cell Performance. <i>ACS Applied Energy Materials</i> , 2019, 2, 6624-6633.	5.1	14
36	Structure and Stability of Au-Supported Layered Cobalt Oxide Nanoislands in Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9176-9182.	3.1	14

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37	Photoelectric Properties of Electrodeposited Copper(I) Oxide Nanowires. <i>Journal of the Electrochemical Society</i> , 2009, 156, K191.	2.9	13
38	Air-Stable Methylammonium Lead Iodide Perovskite Thin Films Fabricated via Aerosol-Assisted Chemical Vapor Deposition from a Pseudohalide Pb(SCN) <sub>2</sub> Precursor. <i>ACS Applied Energy Materials</i> , 2019, 2, 6012-6022.	5.1	13
39	Nanoscale Chevrel-Phase Mo <sub>6</sub> S <sub>8</sub> Prepared by a Molecular Precursor Approach for Highly Efficient Electrocatalysis of the Hydrogen Evolution Reaction in Acidic Media. <i>ACS Applied Energy Materials</i> , 2021, 4, 13015-13026.	5.1	12
40	Magnetic field enhanced nano-tip fabrication for four-probe STM studies. <i>Nanotechnology</i> , 2008, 19, 085201.	2.6	11
41	ZnO nanowires with Au contacts characterised in the as-grown real device configuration using a local multi-probe method. <i>Nanotechnology</i> , 2014, 25, 425706.	2.6	11
42	Adsorption site, orientation and alignment of NO adsorbed on Au(100) using 3D-velocity map imaging, X-ray photoelectron spectroscopy and density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 10939-10946.	2.8	11
43	Patchiness of ion-exchanged mica revealed by DNA binding dynamics at short length scales. <i>Nanotechnology</i> , 2014, 25, 025704.	2.6	10
44	Intercalation, decomposition, entrapment – a new route to graphene nanobubbles. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 7606-7615.	2.8	10
45	Decoupling Structure and Composition of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> –Br Films Prepared by Combined One-Step and Two-Step Deposition. <i>ACS Applied Energy Materials</i> , 2018, 1, 5567-5578.	5.1	9
46	Intrinsic effects of thickness, surface chemistry and electroactive area on nanostructured MoS <sub>2</sub> electrodes with superior stability for hydrogen evolution. <i>Electrochimica Acta</i> , 2021, 382, 138257.	5.2	9
47	High-Performance Nanostructured MoS <sub>2</sub> Electrodes with Spontaneous Ultralow Gold Loading for Hydrogen Evolution. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20940-20951.	3.1	9
48	Universal shape of graphene nanobubbles on metallic substrate. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 6935-6940.	2.8	9
49	Nanocubes of Mo <sub>6</sub> S <sub>8</sub> Chevrel phase as active electrode material for aqueous lithium-ion batteries. <i>Nanoscale</i> , 2022, 14, 10125-10135.	5.6	9
50	Water-induced reordering in ultrathin ionic liquid films. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 334003.	1.8	8
51	PtNi bimetallic structure supported on UiO-67 metal-organic framework (MOF) during CO oxidation. <i>Journal of Catalysis</i> , 2020, 391, 522-529.	6.2	7
52	Direct <i>in situ</i> spectroscopic evidence of the crucial role played by surface oxygen vacancies in the O <sub>2</sub> -sensing mechanism of SnO <sub>2</sub> . <i>Chemical Science</i> , 2022, 13, 6089-6097.	7.4	7
53	Core level photoemission line shape selection: Atomic adsorbates on iron. <i>Surface and Interface Analysis</i> , 2020, 52, 507-512.	1.8	6
54	A combined laboratory and synchrotron in-situ photoemission study of the rutile TiO <sub>2</sub> (110)/water interface. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 194001.	2.8	6

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55	Corrosion inhibition in acidic environments: key interfacial insights with photoelectron spectroscopy. <i>Faraday Discussions</i> , 2022, 236, 374-388.	3.2	6
56	Reversible metallisation of soft UV patterned substrates. <i>Journal of Materials Chemistry C</i> , 2014, 2, 5916-5923.	5.5	4
57	Photo-Seebeck study of amorphous germanium-tellurium-oxide films. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 22000-22011.	2.2	1
58	Manipulation of Molecular Vibrations on Condensing Er <sup>3+</sup> State Densities for 1.5 $\mu$ m Application. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 9620-9625.	4.6	1
59	Evaporation and decomposition of acrylic acid grafted luminescent silicon quantum dots in ultrahigh vacuum. <i>Journal of Physics: Conference Series</i> , 2011, 286, 012039.	0.4	0
60	Examining the crystal growth that influences the electronic device output from vertical arrays of ZnO nanowires. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1659, 101-106.	0.1	0