Duncan Alexander

List of Publications by Year
in descending order

81	5,422	136885	82499
papers	citations	32 h-index	72 g-index

84	84	84	9470
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Light Trapping in Solar Cells: Can Periodic Beat Random?. ACS Nano, 2012, 6, 2790-2797.	7.3	480
2	Brown Carbon Spheres in East Asian Outflow and Their Optical Properties. Science, 2008, 321, 833-836.	6.0	432
3	A Cobaltâ€“Iron Double-Atom Catalyst for the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2019, 141, 14190-14199.	6.6	401
4	CsPbBr₃ QD/AlO_x Inorganic Nanocomposites with Exceptional Stability in Water, Light, and Heat. Angewandte Chemie - International Edition, 2017, 56, 10696-10701.	7.2	389
5	Ripples and Layers in Ultrathin MoS₂ Membranes. Nano Letters, 2011, 11, 5148-5153.	4.5	315
6	Nanoscale topographical control of capillary assembly of nanoparticles. Nature Nanotechnology, 2017, 12, 73-80.	15.6	266
7	Mapping chemical and bonding information using multivariate analysis of electron energy-loss spectrum images. Ultramicroscopy, 2006, 106, 1024-1032.	0.8	261
8	A novel platinum nanocatalyst for the oxidation of 5-Hydroxymethylfurfural into 2,5-Furandicarboxylic acid under mild conditions. Journal of Catalysis, 2014, 315, 67-74.	3.1	224
9	Electrochemical Reaction in Single Layer MoS₂: Nanopores Opened Atom by Atom. Nano Letters, 2015, 15, 3431-3438.	4.5	209
10	Single-layer graphene membranes by crack-free transfer for gas mixture separation. Nature Communications, 2018, 9, 2632.	5.8	160
11	Double-atom catalysts as a molecular platform for heterogeneous oxygen evolution electrocatalysis. Nature Energy, 2021, 6, 1054-1066.	19.8	159
12	Highly Dynamic Cellular-Level Response of Symbiotic Coral to a Sudden Increase in Environmental Nitrogen. MBio, 2013, 4, e00052-13.	1.8	138
13	Solid-state intermetallic phase tranformations in 3XXX aluminium alloys. Acta Materialia, 2002, 50, 2571-2583.	3.8	128
14	The electro-deoxidation of porous titanium dioxide precursors in molten calcium chloride under cathodic potential control. Electrochimica Acta, 2009, 54, 3819-3829.	2.6	127
15	Mixed-phase p-type silicon oxide containing silicon nanocrystals and its role in thin-film silicon solar cells. Applied Physics Letters, 2010, 97, .	1.5	119
16	Silicon Filaments in Silicon Oxide for Nextâ€Generation Photovoltaics. Advanced Materials, 2012, 24, 1182-1186.	11.1	118
17	In-Plane Plasmonic Antenna Arrays with Surface Nanogaps for Giant Fluorescence Enhancement. Nano Letters, 2017, 17, 1703-1710.	4.5	114
18	Microstructural kinetics of phase transformations during electrochemical reduction of titanium dioxide in molten calcium chloride. Acta Materialia, 2006, 54, 2933-2944.	3.8	110

#	Article	IF	Citations
19	Amorphous/crystalline silicon interface defects induced by hydrogen plasma treatments. Applied Physics Letters, 2013, 102, .	1.5	91
20	Geometrical Effect in 2D Nanopores. Nano Letters, 2017, 17, 4223-4230.	4.5	87
21	Large-area MoS ₂ grown using H ₂ S as the sulphur source. 2D Materials, 2015, 2, 044005.	2.0	78
22	The electro-deoxidation of dense titanium dioxide precursors in molten calcium chloride giving a new reaction pathway. Electrochimica Acta, 2011, 56, 3286-3295.	2.6	72
23	Efficient cleavage of aryl ether Câ€“O linkages by Rhâ€“Ni and Ruâ€“Ni nanoscale catalysts operating in water. Chemical Science, 2018, 9, 5530-5535.	3.7	57
24	How to increase the selectivity of Pd-based catalyst in alkynol hydrogenation: Effect of second metal. Applied Catalysis A: General, 2014, 478, 186-193.	2.2	52
25	Mode Coupling in Plasmonic Heterodimers Probed with Electron Energy Loss Spectroscopy. ACS Nano, 2017, 11, 3485-3495.	7.3	42
26	Length scales of interfacial coupling between metal and insulator phases in oxides. Nature Materials, 2020, 19, 1182-1187.	13.3	42
27	Synthesis of Responsive Twoâ€Dimensional Polymers via Selfâ€Assembled DNA Networks. Angewandte Chemie - International Edition, 2017, 56, 5040-5044.	7.2	41
28	Centimeter-Sized Single-Orientation Monolayer Hexagonal Boron Nitride With or Without Nanovoids. Nano Letters, 2018, 18, 1205-1212.	4.5	40
29	Iron oxide nanoparticles supported on activated carbon fibers catalyze chemoselective reduction of nitroarenes under mild conditions. Catalysis Today, 2015, 249, 45-51.	2.2	37
30	Electronic Structure-Dependent Surface Plasmon Resonance in Single Auâ€“Fe Nanoalloys. Nano Letters, 2019, 19, 5754-5761.	4.5	37
31	c-texture versus a-texture low pressure metalorganic chemical vapor deposition ZnO films: Lower resistivity despite smaller grain size. Thin Solid Films, 2014, 565, 1-6.	0.8	35
32	Protein Corona: Impact of Lymph Versus Blood in a Complex In Vitro Environment. Small, 2017, 13, 1700409.	5.2	32
33	Tuning Properties of Iron Oxide Nanoparticles in Aqueous Synthesis without Ligands to Improve MRI Relaxivity and SAR. Nanomaterials, 2017, 7, 225.	1.9	30
34	On the Interplay Between Microstructure and Interfaces in High-Efficiency Microcrystalline Silicon Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 11-16.	1.5	29
35	Preparation of homogeneous titania coating on the surface of MWNT. Composites Science and Technology, 2011, 71, 87-94.	3.8	24
36	Low-temperature plasma-deposited silicon epitaxial films: Growth and properties. Journal of Applied Physics, 2014, 116, .	1.1	21

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37	Where Does Energy Go in Electron Energy Loss Spectroscopy of Nanostructures?. ACS Photonics, 2017, 4, 156-164.	3.2	21
38	Influence of the catalyst drying process and catalyst support particle size on the carbon nanotubes produced by CCVD. Physica Status Solidi (B): Basic Research, 2008, 245, 1915-1918.	0.7	20
39	Imaging Nonradiative Point Defects Buried in Quantum Wells Using Cathodoluminescence. Nano Letters, 2021, 21, 5217-5224.	4.5	20
40	Mixed phase silicon oxide layers for thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2011, 1321, 349.	0.1	19
41	Increasing Polycrystalline Zinc Oxide Grain Size by Control of Film Preferential Orientation. Crystal Growth and Design, 2015, 15, 5886-5891.	1.4	19
42	Tilt-less 3-D electron imaging and reconstruction of complex curvilinear structures. Scientific Reports, 2017, 7, 10630.	1.6	19
43	Structural analysis of LaVO3 thin films under epitaxial strain. APL Materials, 2018, 6, .	2.2	19
44	An EFTEM study of compositional variations in Mgâ€“Niâ€“Nd bulk metallic glasses. Journal of Non-Crystalline Solids, 2003, 317, 23-29.	1.5	17
45	Nucleation of the Al6(Fe,â€‰Mn)-to-Îł-Alâ€“(Fe,â€‰Mn)â€“Si transformation in 3XXX aluminium alloys. II. Transformation in cast aluminium alloys. Philosophical Magazine, 2004, 84, 3071-3083.	0.7	16
46	Nucleation of the Al6(Fe,â€‰Mn)-to-Îł-Alâ€“(Fe,â€‰Mn)â€“Si transformation in 3XXX aluminium alloys. I. Roll-bonded diffusion couples. Philosophical Magazine, 2004, 84, 3051-3070.	0.7	16
47	Gentle quantitative measurement of helium density in nanobubbles in silicon by spectrum imaging. Micron, 2015, 77, 57-65.	1.1	16
48	Properties of helium bubbles in covalent systems at the nanoscale: A combined numerical and experimental study. Physical Review B, 2017, 96, .	1.1	16
49	Synthesis of Nanosized Mn-Doped ZnO by Low Temperature Decomposition of Hydrozincite Precursors. Crystal Growth and Design, 2010, 10, 4437-4441.	1.4	15
50	Near-Field Mapping of Photonic Eigenmodes in Patterned Silicon Nanocavities by Electron Energy-Loss Spectroscopy. ACS Nano, 2021, 15, 16501-16514.	7.3	14
51	Effects of Si and Y in structural development of (Al,Cr,Si/Y)OxN1â^'x thin films deposited by magnetron sputtering. Thin Solid Films, 2013, 549, 224-231.	0.8	13
52	Height-resolved quantification of microstructure and texture in polycrystalline thin films using TEM orientation mapping. Ultramicroscopy, 2015, 159, 112-123.	0.8	13
53	Chemically pure Î²-tricalcium phosphate powders: Evidence of two crystal structures. Journal of the European Ceramic Society, 2021, 41, 1683-1694.	2.8	13
54	Zinc blendeâ€“wurtzite polytypism in nanocrystalline ZnO films. Acta Materialia, 2017, 130, 240-248.	3.8	12

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55	Near-Atomic-Scale Mapping of Electronic Phases in Rare Earth Nickelate Superlattices. Nano Letters, 2021, 21, 2436-2443.	4.5	12
56	Formation of eutectic intermetallic rosettes by entrapment of liquid droplets during cellular columnar growth. Acta Materialia, 2004, 52, 5853-5861.	3.8	11
57	Imaging of high-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>cavity optical modes by electron energy-loss microscopy. Physical Review B, 2013, 87, .	1.1	11
58	Mode Evolution in Strongly Coupled Plasmonic Dolmens Fabricated by Templated Assembly. ACS Photonics, 2017, 4, 1661-1668.	3.2	11
59	Quantitative imaging of flux vortices in the type-II superconductor MgB<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>using cryo-Lorentz transmission electron microscopy. Physical Review B, 2013, 88, .	1.1	10
60	3D Ordering at the Liquidâ€“Solid Polar Interface of Nanowires. Advanced Materials, 2020, 32, e2001030.	11.1	10
61	Particle break-up during heat treatment of 3000 series aluminium alloys. Materials Science and Technology, 2005, 21, 955-960.	0.8	9
62	La@C₈₂ as a spinâ€active filling of SWCNTs: ESR study of magnetic and photophysical properties. Physica Status Solidi (B): Basic Research, 2008, 245, 2042-2046.	0.7	8
63	Direct Imaging of Dopant Distribution in Polycrystalline ZnO Films. ACS Applied Materials & Interfaces, 2017, 9, 7241-7248.	4.0	7
64	Fabrication and Characteristics of Yb-Doped Silica Fibers Produced by the Sol-Gel Based Granulated Silica Method. Fibers, 2018, 6, 82.	1.8	6
65	Crossover between distinct symmetries in solid solutions of rare earth nickelates. APL Materials, 2021, 9, .	2.2	6
66	Microstructure and mechanical properties of hot rolled Feâ€“40 at-%Al intermetallic alloys with Zr and B addition. Materials Science and Technology, 2011, 27, 1448-1452.	0.8	5
67	Quantifying competitive grain overgrowth in polycrystalline ZnO thin films. Acta Materialia, 2019, 173, 74-86.	3.8	5
68	Waveguide modes spatially resolved by low-loss STEM-EELS. Physical Review B, 2021, 103, .	1.1	4
69	Study of Intermetallic Phase Transformations in 3xxx Alloys Using Diffusion Couples. Materials Science Forum, 2002, 396-402, 681-686.	0.3	3
70	Preparation of homogeneous titania coatings on the surface of MWNTs. Physica Status Solidi (B): Basic Research, 2010, 247, 2683-2686.	0.7	3
71	Morphology, microstructure, crystallography, and chemistry of distinct CaCO3deposits formed by early recruits of the scleractinian coralPocillopora damicornis. Journal of Morphology, 2015, 276, 1146-1156.	0.6	2
72	STEM-EELS Imaging of Resonant Modes in Dielectric Silicon Nanostructures. Microscopy and Microanalysis, 2019, 25, 634-635.	0.2	2

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73	Electron energy-loss spectroscopy of coupled plasmonic systems: beyond the standard electron perspective. , 2016, , .		1
74	Publisherâ€™s Note: â€œStructural analysis of LaVO3 thin films under epitaxial strainâ€•[APL Materials 6, 046102 (2018)]. APL Materials, 2018, 6, 069901.	2.2	1
75	On the interplay between microstructure and interfaces in high-efficiency microcrystalline silicon solar cells. , 2012, , .		0
76	On the interplay between microstructure and interfaces in high-efficiency microcrystalline silicon solar cells. , 2013, , .		0
77	Second harmonic generation in plasmonic nanostructures: A double dipolar resonant antenna design. , 2017, , .		0
78	MOOCS: A New Way of Teaching Transmission Electron Microscopy. Microscopy and Microanalysis, 2019, 25, 2270-2271.	0.2	0
79	Structural and Compositional Effects in Epitaxially-Strained Vanadate Thin Films. Microscopy and Microanalysis, 2019, 25, 966-967.	0.2	0
80	Sampling Optical Modes and Electronic States with Fast, Monochromated EELS. Microscopy and Microanalysis, 2020, 26, 1754-1755.	0.2	0
81	Triplet grain growth in a-texture polycrystalline ZnO thin films. Acta Materialia, 2020, 199, 523-529.	3.8	0