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	Chemically pure Î²-tricalcium phosphate powders: Evidence of two crystal structures. Journal of the European Ceramic Society, 2021, 41, 1683-1694.	2.8	13
2	Near-Atomic-Scale Mapping of Electronic Phases in Rare Earth Nickelate Superlattices. Nano Letters, 2021, 21, 2436-2443.	4.5	12
3	Waveguide modes spatially resolved by low-loss STEM-EELS. Physical Review B, 2021, 103, .	1.1	4
4	Imaging Nonradiative Point Defects Buried in Quantum Wells Using Cathodoluminescence. Nano Letters, 2021, 21, 5217-5224.	4.5	20
5	Crossover between distinct symmetries in solid solutions of rare earth nickelates. APL Materials, 2021, 9, .	2.2	6
6	Near-Field Mapping of Photonic Eigenmodes in Patterned Silicon Nanocavities by Electron Energy-Loss Spectroscopy. ACS Nano, 2021, 15, 16501-16514.	7.3	14
7	Double-atom catalysts as a molecular platform for heterogeneous oxygen evolution electrocatalysis. Nature Energy, 2021, 6, 1054-1066.	19.8	159
8	Length scales of interfacial coupling between metal and insulator phases in oxides. Nature Materials, 2020, 19, 1182-1187.	13.3	42
9	3D Ordering at the Liquidâ€“Solid Polar Interface of Nanowires. Advanced Materials, 2020, 32, e2001030.	11.1	10
10	Sampling Optical Modes and Electronic States with Fast, Monochromated EELS. Microscopy and Microanalysis, 2020, 26, 1754-1755.	0.2	0
11	Triplet grain growth in a-texture polycrystalline ZnO thin films. Acta Materialia, 2020, 199, 523-529.	3.8	0
12	A Cobaltâ€“Iron Double-Atom Catalyst for the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2019, 141, 14190-14199.	6.6	401
13	Electronic Structure-Dependent Surface Plasmon Resonance in Single Auâ€“Fe Nanoalloys. Nano Letters, 2019, 19, 5754-5761.	4.5	37
14	STEM-EELS Imaging of Resonant Modes in Dielectric Silicon Nanostructures. Microscopy and Microanalysis, 2019, 25, 634-635.	0.2	2
15	MOOCS: A New Way of Teaching Transmission Electron Microscopy. Microscopy and Microanalysis, 2019, 25, 2270-2271.	0.2	0
16	Structural and Compositional Effects in Epitaxially-Strained Vanadate Thin Films. Microscopy and Microanalysis, 2019, 25, 966-967.	0.2	0
17	Quantifying competitive grain overgrowth in polycrystalline ZnO thin films. Acta Materialia, 2019, 173, 74-86.	3.8	5
18	Structural analysis of LaVO3 thin films under epitaxial strain. APL Materials, 2018, 6, .	2.2	19

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19	Centimeter-Sized Single-Orientation Monolayer Hexagonal Boron Nitride With or Without Nanovoids. Nano Letters, 2018, 18, 1205-1212.	4.5	40
20	Fabrication and Characteristics of Yb-Doped Silica Fibers Produced by the Sol-Gel Based Granulated Silica Method. Fibers, 2018, 6, 82.	1.8	6
21	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
22	Single-layer graphene membranes by crack-free transfer for gas mixture separation. Nature Communications, 2018, 9, 2632.	5.8	160
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	Direct Imaging of Dopant Distribution in Polycrystalline ZnO Films. ACS Applied Materials & Interfaces, 2017, 9, 7241-7248.	4.0	7
25	In-Plane Plasmonic Antenna Arrays with Surface Nanogaps for Giant Fluorescence Enhancement. Nano Letters, 2017, 17, 1703-1710.	4.5	114
26	Geometrical Effect in 2D Nanopores. Nano Letters, 2017, 17, 4223-4230.	4.5	87
27	Mode Evolution in Strongly Coupled Plasmonic Dolmens Fabricated by Templated Assembly. ACS Photonics, 2017, 4, 1661-1668.	3.2	11
28	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
29	Zinc blendeâ€“wurtzite polytypism in nanocrystalline ZnO films. Acta Materialia, 2017, 130, 240-248.	3.8	12
30	Synthesis of Responsive Twoâ€Dimensional Polymers via Selfâ€Assembled DNA Networks. Angewandte Chemie - International Edition, 2017, 56, 5040-5044.	7.2	41
31	Mode Coupling in Plasmonic Heterodimers Probed with Electron Energy Loss Spectroscopy. ACS Nano, 2017, 11, 3485-3495.	7.3	42
32	Where Does Energy Go in Electron Energy Loss Spectroscopy of Nanostructures?. ACS Photonics, 2017, 4, 156-164.	3.2	21
33	Tilt-less 3-D electron imaging and reconstruction of complex curvilinear structures. Scientific Reports, 2017, 7, 10630.	1.6	19
34	Properties of helium bubbles in covalent systems at the nanoscale: A combined numerical and experimental study. Physical Review B, 2017, 96, .	1.1	16
35	Second harmonic generation in plasmonic nanostructures: A double dipolar resonant antenna design. , 2017, , .		0
36	Nanoscale topographical control of capillary assembly of nanoparticles. Nature Nanotechnology, 2017, 12, 73-80.	15.6	266

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37	Tuning Properties of Iron Oxide Nanoparticles in Aqueous Synthesis without Ligands to Improve MRI Relaxivity and SAR. Nanomaterials, 2017, 7, 225.	1.9	30
38	Protein Corona: Impact of Lymph Versus Blood in a Complex In Vitro Environment. Small, 2017, 13, 1700409.	5.2	32
39	Electron energy-loss spectroscopy of coupled plasmonic systems: beyond the standard electron perspective. , 2016, , .		1
40	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
41	Large-area MoS ₂ grown using H ₂ S as the sulphur source. 2D Materials, 2015, 2, 044005.	2.0	78
42	Electrochemical Reaction in Single Layer MoS₂: Nanopores Opened Atom by Atom. Nano Letters, 2015, 15, 3431-3438.	4.5	209
43	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
44	Height-resolved quantification of microstructure and texture in polycrystalline thin films using TEM orientation mapping. Ultramicroscopy, 2015, 159, 112-123.	0.8	13
45	Increasing Polycrystalline Zinc Oxide Grain Size by Control of Film Preferential Orientation. Crystal Growth and Design, 2015, 15, 5886-5891.	1.4	19
46	Gentle quantitative measurement of helium density in nanobubbles in silicon by spectrum imaging. Micron, 2015, 77, 57-65.	1.1	16
47	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
48	Low-temperature plasma-deposited silicon epitaxial films: Growth and properties. Journal of Applied Physics, 2014, 116, .	1.1	21
49	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
50	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
51	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
52	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
53	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
54	Amorphous/crystalline silicon interface defects induced by hydrogen plasma treatments. Applied Physics Letters, 2013, 102, .	1.5	91

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55	Highly Dynamic Cellular-Level Response of Symbiotic Coral to a Sudden Increase in Environmental Nitrogen. MBio, 2013, 4, e00052-13.	1.8	138
56	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
57	On the interplay between microstructure and interfaces in high-efficiency microcrystalline silicon solar cells. , 2013, , .		0
58	On the interplay between microstructure and interfaces in high-efficiency microcrystalline silicon solar cells. , 2012, , .		0
59	Light Trapping in Solar Cells: Can Periodic Beat Random?. ACS Nano, 2012, 6, 2790-2797.	7.3	480
60	Silicon Filaments in Silicon Oxide for Nextâ€Generation Photovoltaics. Advanced Materials, 2012, 24, 1182-1186.	11.1	118
61	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
62	Ripples and Layers in Ultrathin MoS₂ Membranes. Nano Letters, 2011, 11, 5148-5153.	4.5	315
63	Preparation of homogeneous titania coating on the surface of MWNT. Composites Science and Technology, 2011, 71, 87-94.	3.8	24
64	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
65	Mixed phase silicon oxide layers for thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2011, 1321, 349.	0.1	19
66	Preparation of homogeneous titania coatings on the surface of MWNTs. Physica Status Solidi (B): Basic Research, 2010, 247, 2683-2686.	0.7	3
67	Synthesis of Nanosized Mn-Doped ZnO by Low Temperature Decomposition of Hydrozincite Precursors. Crystal Growth and Design, 2010, 10, 4437-4441.	1.4	15
68	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
69	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
70	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
71	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
72	Brown Carbon Spheres in East Asian Outflow and Their Optical Properties. Science, 2008, 321, 833-836.	6.0	432

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73	Microstructural kinetics of phase transformations during electrochemical reduction of titanium dioxide in molten calcium chloride. Acta Materialia, 2006, 54, 2933-2944.	3.8	110
74	Mapping chemical and bonding information using multivariate analysis of electron energy-loss spectrum images. Ultramicroscopy, 2006, 106, 1024-1032.	0.8	261
75	Particle break-up during heat treatment of 3000 series aluminium alloys. Materials Science and Technology, 2005, 21, 955-960.	0.8	9
76	Formation of eutectic intermetallic rosettes by entrapment of liquid droplets during cellular columnar growth. Acta Materialia, 2004, 52, 5853-5861.	3.8	11
77	Nucleation of the Al6(Fe,â€‰Mn)-to-Î±-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
78	Nucleation of the Al6(Fe,â€‰Mn)-to-Î±-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
79	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
80	Study of Intermetallic Phase Transformations in 3xxx Alloys Using Diffusion Couples. Materials Science Forum, 2002, 396-402, 681-686.	0.3	3
81	Solid-state intermetallic phase tranformations in 3XXX aluminium alloys. Acta Materialia, 2002, 50, 2571-2583.	3.8	128