

Lawrence F Allard

List of Publications by Year in descending order

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58
papers

11,247
citations

126907

33
h-index

161849

54
g-index

59
all docs

59
docs citations

59
times ranked

11553
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-Term ¹³ C Uptake by ¹² C-Enriched Calcite. ACS Earth and Space Chemistry, 2021, 5, 998-1005.	2.7	7
2	Performing <i>In Situ</i> Closed-Cell Gas Reactions in the Transmission Electron Microscope. Journal of Visualized Experiments, 2021, , .	0.3	0
3	Sol-gel synthesis of nano-scale, end-member albite feldspar (NaAlSi ₃ O ₈). Journal of Colloid and Interface Science, 2021, 603, 459-467.	9.4	2
4	Surpassing the single-atom catalytic activity limit through paired Pt-O-Pt ensemble built from isolated Pt ₁ atoms. Nature Communications, 2019, 10, 3808.	12.8	225
5	Single-atom gold oxo-clusters prepared in alkaline solutions catalyse the heterogeneous methanol self-coupling reactions. Nature Chemistry, 2019, 11, 1098-1105.	13.6	82
6	Single-site Pt/La-Al ₂ O ₃ stabilized by barium as an active and stable catalyst in purifying CO and C ₃ H ₆ emissions. Applied Catalysis B: Environmental, 2019, 244, 327-339.	20.2	44
7	Synthesis and structure of synthetically pure and deuterated amorphous (basic) calcium carbonates. Chemical Communications, 2017, 53, 2942-2945.	4.1	28
8	Comparative Evaluation of Cast Aluminum Alloys for Automotive Cylinder Heads: Part I – Microstructure Evolution. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2529-2542.	2.2	50
9	Comparative Evaluation of Cast Aluminum Alloys for Automotive Cylinder Heads: Part II – Mechanical and Thermal Properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2543-2562.	2.2	71
10	Single Pd Atoms on γ -Al ₂ O ₃ (010) Surface do not Catalyze NO Oxidation. Scientific Reports, 2017, 7, 560.	3.3	19
11	Metastable Pd α PdO Structures During High Temperature Methane Oxidation. Catalysis Letters, 2017, 147, 1095-1103.	2.6	44
12	NiAl Oxidation Reaction Processes Studied In Situ Using MEMS-Based Closed-Cell Gas Reaction Transmission Electron Microscopy. Oxidation of Metals, 2017, 88, 495-508.	2.1	17
13	In situ investigation of ordering phase transformations in FePt magnetic nanoparticles. Ultramicroscopy, 2017, 176, 218-232.	1.9	20
14	Ab Initio Density Functional Calculations and Infra-Red Study of CO Interaction with Pd Atoms on γ -Al ₂ O ₃ (010) Surface. Scientific Reports, 2017, 7, 6231.	3.3	9
15	Mild oxidation of methane to methanol or acetic acid on supported isolated rhodium catalysts. Nature, 2017, 551, 605-608.	27.8	550
16	Model α -Alloy Specimens for MEMS-Based Closed-Cell Gas-Reactions. Microscopy and Microanalysis, 2017, 23, 908-909.	0.4	0
17	Water Vapor in Closed-Cell In Situ Gas Reactions: Initial Experiments. Microscopy and Microanalysis, 2017, 23, 940-941.	0.4	2
18	Imaging at the Single-Atom Level in Closed-Cell In Situ Gas Reactions. Microscopy and Microanalysis, 2016, 22, 876-877.	0.4	3

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19	Atomically Dispersed Precious Metal Species on Various Oxide Supports for Catalytic Hydrogen Upgrading and Emission Control. <i>Microscopy and Microanalysis</i> , 2016, 22, 858-859.	0.4	0
20	High Ms Fe ₁₆ N ₂ thin film with Ag under layer on GaAs substrate. <i>AIP Advances</i> , 2016, 6, .	1.3	1
21	Synthesis of Fe ₁₆ N ₂ compound Free-Standing Foils with 20 MGOe Magnetic Energy Product by Nitrogen Ion-Implantation. <i>Scientific Reports</i> , 2016, 6, 25436.	3.3	50
22	Diphosphine-Protected Au ₂₂ Nanoclusters on Oxide Supports Are Active for Gas-Phase Catalysis without Ligand Removal. <i>Nano Letters</i> , 2016, 16, 6560-6567.	9.1	88
23	Synthesis of $\text{Pt}_{1\pm}\text{N}_2$ Anisotropic Magnet by t. <i>Physical Review Applied</i> , 2016, 6, .	3.8	20
24	Oxidation-Induced Structural Changes in Sub-Nanometer Platinum Supported on Alumina. <i>ChemCatChem</i> , 2015, 7, 2391-2396.	3.7	4
25	A Common Single-Site Pt(II)-O(OH) Species Stabilized by Sodium on α -Al ₂ O ₃ Supports Catalyzes the Water-Gas Shift Reaction. <i>Journal of the American Chemical Society</i> , 2015, 137, 3470-3473.	13.7	347
26	Selective hydrogenation of 1,3-butadiene on platinum-copper alloys at the single-atom limit. <i>Nature Communications</i> , 2015, 6, 8550.	12.8	484
27	Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing. <i>Nature Communications</i> , 2015, 6, 8925.	12.8	159
28	Thermal stability of partially ordered Fe ₁₆ N ₂ film on non-magnetic Ag under layer. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	10
29	Catalytically active Au-O(OH) - species stabilized by alkali ions on zeolites and mesoporous oxides. <i>Science</i> , 2014, 346, 1498-1501.	12.6	544
30	Low-temperature carbon monoxide oxidation catalysed by regenerable atomically dispersed palladium on alumina. <i>Nature Communications</i> , 2014, 5, 4885.	12.8	498
31	Thiolate Ligands as a Double-Edged Sword for CO Oxidation on CeO ₂ Supported Au ₂₅ (SCH ₂ CH ₂ Ph) ₁₈ Nanoclusters. <i>Journal of the American Chemical Society</i> , 2014, 136, 6111-6122.	13.7	245
32	In Situ Investigation of the Carbothermal Reduction of ZnO Nanowires. <i>Microscopy and Microanalysis</i> , 2014, 20, 1554-1555.	0.4	1
33	Novel Method for Precision Controlled Heating of TEM Thin Sections to Study Reaction Processes. <i>Microscopy and Microanalysis</i> , 2014, 20, 1628-1629.	0.4	1
34	Remarkable NO oxidation on single supported platinum atoms. <i>Scientific Reports</i> , 2014, 4, 7238.	3.3	78
35	Structure and morphology of polar and semi-polar pyramidal surfaces coating wurtzite ZnO micro-wires. <i>Journal of Materials Science</i> , 2013, 48, 3857-3862.	3.7	10
36	CO Oxidation on Supported Single Pt Atoms: Experimental and ab Initio Density Functional Studies of CO Interaction with Pt Atom on Ir ₂ O ₃ (010) Surface. <i>Journal of the American Chemical Society</i> , 2013, 135, 12634-12645.	13.7	535

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37	Atomic Structure and Composition of Pt_3Co Nanocatalysts in Fuel Cells: An Aberration-Corrected STEM HAADF Study. <i>Chemistry of Materials</i> , 2013, 25, 530-535.	6.7	39
38	Atomically Dispersed Au(OH) Species Bound on Titania Catalyze the Low-Temperature Water-Gas Shift Reaction. <i>Journal of the American Chemical Society</i> , 2013, 135, 3768-3771.	13.7	348
39	The effect of strain induced by Ag underlayer on saturation magnetization of partially ordered Fe ₁₆ N ₂ thin films. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	16
40	Understanding structural defects in lithium-rich layered oxide cathodes. <i>Journal of Materials Chemistry</i> , 2012, 22, 11550.	6.7	68
41	Evaluation of Al ₃ Mg ₂ Precipitates and Mn-Rich Phase in Aluminum-Magnesium Alloy Based on Scanning Transmission Electron Microscopy Imaging. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 4933-4939.	2.2	79
42	Fabrication of Fe_{16}N_2 Films by Sputtering Process and Experimental Investigation of Origin of Giant Saturation Magnetization in Fe_{16}N_2 . <i>IEEE Transactions on Magnetics</i> , 2012, 48, 1710-1717.	2.1	75
43	Single-atom catalysis of CO oxidation using Pt ₁ /FeOx. <i>Nature Chemistry</i> , 2011, 3, 634-641.	13.6	5,149
44	Atomic Structure of a Lithium-Rich Layered Oxide Material for Lithium-Ion Batteries: Evidence of a Solid Solution. <i>Chemistry of Materials</i> , 2011, 23, 3614-3621.	6.7	441
45	On the behavior of Ag nanowires under high temperature: in situ characterization by aberration-corrected STEM. <i>Journal of Materials Chemistry</i> , 2011, 21, 893-898.	6.7	34
46	Perpendicular magnetic anisotropy and high spin-polarization ratio in epitaxial Fe-N thin films. <i>Physical Review B</i> , 2011, 84, .	3.2	72
47	N site ordering effect on partially ordered Fe ₁₆ N ₂ . <i>Applied Physics Letters</i> , 2011, 98, .	3.3	61
48	New insights into the growth mechanism and surface structure of palladium nanocrystals. <i>Nano Research</i> , 2010, 3, 180-188.	10.4	98
49	Titanium Oxide Nanoparticles Precipitated from Low-Temperature Aqueous Solutions: II. Thin Film Formation and Microstructure Developments. <i>Journal of the American Ceramic Society</i> , 2010, 93, 1909-1915.	3.8	9
50	Direct Colloidal Route for Pt-Covered AuPt Bimetallic Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2514-2518.	4.6	41
51	Unique Role of Anchoring Penta-Coordinated Al ³⁺ Sites in the Sintering of Al_2O_3 -Supported Pt Catalysts. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2688-2691.	4.6	101
52	Evolution of gold structure during thermal treatment of Au/FeOx catalysts revealed by aberration-corrected electron microscopy. <i>Journal of Electron Microscopy</i> , 2009, 58, 199-212.	0.9	70
53	A new MEMS-based system for ultra-high-resolution imaging at elevated temperatures. <i>Microscopy Research and Technique</i> , 2009, 72, 208-215.	2.2	135
54	A Novel Heating Technology for Ultra-High Resolution Imaging in Electron Microscopes. <i>Microscopy Today</i> , 2009, 17, 50-55.	0.3	7

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55	Titanium Oxide Nanoparticles Precipitated from Low-Temperature Aqueous Solutions: I. Nucleation, Growth, and Aggregation. Journal of the American Ceramic Society, 2008, 91, 3875-3882.	3.8	28
56	Atomic structure of three-layer Au/Pd nanoparticles revealed by aberration-corrected scanning transmission electron microscopy. Journal of Materials Chemistry, 2008, 18, 2442.	6.7	70
57	Early Results from an Aberration-Corrected JEOL 2200FS STEM/TEM at Oak Ridge National Laboratory. Microscopy and Microanalysis, 2006, 12, 483-491.	0.4	26
58	N site ordering effect on partially ordered Fe ₁₆ N ₂ . , 0, .		1