Lawrence F Allard

List of Publications by Year
in descending order

58 papers	11,247 citations	126708 33 h-index	161609 54 g-index
59 all docs	59 docs citations	59 times ranked	11553 citing authors

#	Article	IF	Citations
1	Long-Term ¹³C Uptake by ¹²C-Enriched Calcite. ACS Earth and Space Chemistry, 2021, 5, 998-1005.	1.2	7
2	Performing In Situ Closed-Cell Gas Reactions in the Transmission Electron Microscope. Journal of Visualized Experiments, 2021, , .	0.2	0
3	Sol-gel synthesis of nano-scale, end-member albite feldspar (NaAlSi3O8). Journal of Colloid and Interface Science, 2021, 603, 459-467.	5.0	2
4	Surpassing the single-atom catalytic activity limit through paired Pt-O-Pt ensemble built from isolated Pt1 atoms. Nature Communications, 2019, 10, 3808.	5.8	225
5	Single-atom gold oxo-clusters prepared in alkaline solutions catalyse the heterogeneous methanol self-coupling reactions. Nature Chemistry, 2019, 11, 1098-1105.	6.6	82
6	Single-site Pt/La-Al2O3 stabilized by barium as an active and stable catalyst in purifying CO and C3H6 emissions. Applied Catalysis B: Environmental, 2019, 244, 327-339.	10.8	44
7	Synthesis and structure of synthetically pure and deuterated amorphous (basic) calcium carbonates. Chemical Communications, 2017, 53, 2942-2945.	2.2	28
8	Comparative Evaluation of Cast Aluminum Alloys for Automotive Cylinder Heads: Part Iâ€"Microstructure Evolution. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2529-2542.	1.1	50
9	Comparative Evaluation of Cast Aluminum Alloys for Automotive Cylinder Heads: Part IIâ€"Mechanical and Thermal Properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2543-2562.	1.1	71
10	Single Pd Atoms on Î¸-Al2O3 (010) Surface do not Catalyze NO Oxidation. Scientific Reports, 2017, 7, 560.	1.6	19
11	Metastable Pd â†" PdO Structures During High Temperature Methane Oxidation. Catalysis Letters, 2017, 147, 1095-1103.	1.4	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.	1.0	17
13	In situ investigation of ordering phase transformations in FePt magnetic nanoparticles. Ultramicroscopy, 2017, 176, 218-232.	0.8	20
14	Ab Initio Density Functional Calculations and Infra-Red Study of CO Interaction with Pd Atoms on Î¸-Al2O3 (010) Surface. Scientific Reports, 2017, 7, 6231.	1.6	9
15	Mild oxidation of methane to methanol or acetic acid on supported isolated rhodium catalysts. Nature, 2017, 551, 605-608.	13.7	550
16	Model â€œAlloyâ€•Specimens for MEMS-Based Closed-Cell Gas-Reactions. Microscopy and Microanalysis, 2017, 23, 908-909.	0.2	0
17	Water Vapor in Closed-Cell In Situ Gas Reactions: Initial Experiments. Microscopy and Microanalysis, 2017, 23, 940-941.	0.2	2
18	Imaging at the Single-Atom Level in Closed-Cell In Situ Gas Reactions. Microscopy and Microanalysis, 2016, 22, 876-877.	0.2	3

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19	Atomically Dispersed Precious Metal Species on Various Oxide Supports for Catalytic Hydrogen Upgrading and Emission Control. Microscopy and Microanalysis, 2016, 22, 858-859.	0.2	0
20	High Ms Fe16N2 thin film with Ag under layer on GaAs substrate. AIP Advances, 2016, 6, .	0.6	1
21	Synthesis of Fe16N2 compound Free-Standing Foils with 20 MGOe Magnetic Energy Product by Nitrogen Ion-Implantation. Scientific Reports, 2016, 6, 25436.	1.6	50
22	Diphosphine-Protected Au₂₂ Nanoclusters on Oxide Supports Are Active for Gas-Phase Catalysis without Ligand Removal. Nano Letters, 2016, 16, 6560-6567.	4.5	88
23	Synthesis of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow><mml:mrow><mml:mo>â€²</mml:mo><mml:mathvariant="normal">N</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:Anisotropic Magnet by t. Physical Review Applied, 2016, 6, .	1.5	20
24	Oxidationâ€Induced Structural Changes in Subâ€Nanometer Platinum Supported on Alumina. ChemCatChem, 2015, 7, 2391-2396.	1.8	4
25	A Common Single-Site Pt(II)â€“O(OH)_xâ€“ Species Stabilized by Sodium on â€œActiveâ€•and â€œInertâ€•Supports Catalyzes the Water-Gas Shift Reaction. Journal of the American Chemical Society, 2015, 137, 3470-3473.	6.6	347
26	Selective hydrogenation of 1,3-butadiene on platinumâ€“copper alloys at the single-atom limit. Nature Communications, 2015, 6, 8550.	5.8	484
27	Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing. Nature Communications, 2015, 6, 8925.	5.8	159
28	Thermal stability of partially ordered Fe16N2 film on non-magnetic Ag under layer. Journal of Applied Physics, 2014, 115, .	1.1	10
29	Catalytically active Au-O(OH) _x - species stabilized by alkali ions on zeolites and mesoporous oxides. Science, 2014, 346, 1498-1501.	6.0	544
30	Low-temperature carbon monoxide oxidation catalysed by regenerable atomically dispersed palladium on alumina. Nature Communications, 2014, 5, 4885.	5.8	498
31	Thiolate Ligands as a Double-Edged Sword for CO Oxidation on CeO₂ Supported Au₂₅(SCH₂CH₂Ph)₁₈ Nanoclusters. Journal of the American Chemical Society, 2014, 136, 6111-6122.	6.6	245
32	In Situ Investigation of the Carbothermal Reduction of ZnO Nanowires. Microscopy and Microanalysis, 2014, 20, 1554-1555.	0.2	1
33	Novel Method for Precision Controlled Heating of TEM Thin Sections to Study Reaction Processes. Microscopy and Microanalysis, 2014, 20, 1628-1629.	0.2	1
34	Remarkable NO oxidation on single supported platinum atoms. Scientific Reports, 2014, 4, 7238.	1.6	78
35	Structure and morphology of polar and semi-polar pyramidal surfaces coating wurtzite ZnO micro-wires. Journal of Materials Science, 2013, 48, 3857-3862.	1.7	10
36	CO Oxidation on Supported Single Pt Atoms: Experimental and ab Initio Density Functional Studies of CO Interaction with Pt Atom on Î¸-Al₂O₃(010) Surface. Journal of the American Chemical Society, 2013, 135, 12634-12645.	6.6	535

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37	Atomic Structure and Composition of â€œPt₃Coâ€•Nanocatalysts in Fuel Cells: An Aberration-Corrected STEM HAADF Study. Chemistry of Materials, 2013, 25, 530-535.	3.2	39
38	Atomically Dispersed Auâ€“(OH)_x Species Bound on Titania Catalyze the Low-Temperature Water-Gas Shift Reaction. Journal of the American Chemical Society, 2013, 135, 3768-3771.	6.6	348
39	The effect of strain induced by Ag underlayer on saturation magnetization of partially ordered Fe16N2 thin films. Applied Physics Letters, 2013, 103, .	1.5	16
40	Understanding structural defects in lithium-rich layered oxide cathodes. Journal of Materials Chemistry, 2012, 22, 11550.	6.7	68
41	Evaluation of Al3Mg2 Precipitates and Mn-Rich Phase in Aluminum-Magnesium Alloy Based on Scanning Transmission Electron Microscopy Imaging. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 4933-4939.	1.1	79
42	Fabrication of $hbox{Fe}_{16}hbox{N}_{2}$ Films by Sputtering Process and Experimental Investigation of Origin of Giant Saturation Magnetization in $hbox{Fe}_{16}hbox{N}_{2}$. IEEE Transactions on Magnetics, 2012, 48, 1710-1717.	1.2	75
43	Single-atom catalysis of CO oxidation using Pt1/FeOx. Nature Chemistry, 2011, 3, 634-641.	6.6	5,149
44	Atomic Structure of a Lithium-Rich Layered Oxide Material for Lithium-Ion Batteries: Evidence of a Solid Solution. Chemistry of Materials, 2011, 23, 3614-3621.	3.2	441
45	On the behavior of Ag nanowires under high temperature: in situ characterization by aberration-corrected STEM. Journal of Materials Chemistry, 2011, 21, 893-898.	6.7	34
46	Perpendicular magnetic anisotropy and high spin-polarization ratio in epitaxial Fe-N thin films. Physical Review B, 2011, 84, .	1.1	72
47	N site ordering effect on partially ordered Fe16N2. Applied Physics Letters, 2011, 98, .	1.5	61
48	New insights into the growth mechanism and surface structure of palladium nanocrystals. Nano Research, 2010, 3, 180-188.	5.8	98
49	Titanium Oxide Nanoparticles Precipitated from Lowâ€Temperature Aqueous Solutions: II. Thinâ€Film Formation and Microstructure Developments. Journal of the American Ceramic Society, 2010, 93, 1909-1915.	1.9	9
50	Direct Colloidal Route for Pt-Covered AuPt Bimetallic Nanoparticles. Journal of Physical Chemistry Letters, 2010, 1, 2514-2518.	2.1	41
51	Unique Role of Anchoring Penta-Coordinated Al³⁺ Sites in the Sintering of Î³-Al₂O₃-Supported Pt Catalysts. Journal of Physical Chemistry Letters, 2010, 1, 2688-2691.	2.1	101
52	Evolution of gold structure during thermal treatment of Au/FeOx catalysts revealed by aberration-corrected electron microscopy. Journal of Electron Microscopy, 2009, 58, 199-212.	0.9	70
53	A new MEMSâ€based system for ultraâ€highâ€resolution imaging at elevated temperatures. Microscopy Research and Technique, 2009, 72, 208-215.	1.2	135
54	A Novel Heating Technology for Ultra-High Resolution Imaging in Electron Microscopes. Microscopy Today, 2009, 17, 50-55.	0.2	7

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55	Titanium Oxide Nanoparticles Precipitated from Lowâ€Temperature Aqueous Solutions: I. Nucleation, Growth, and Aggregation. Journal of the American Ceramic Society, 2008, 91, 3875-3882.	1.9	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.	0.2	26
58	N site ordering effect on partially ordered Fe16N2. , 0, .		1