Jonathan R I Lee

List of Publications by Year in descending order

62 papers	3,746 citations	201674 27 h-index	133252 59 g-index
64 all docs	64 docs citations	64 times ranked	6278 citing authors

#	Article	IF	Citations
1	Understanding Hydrogenation Chemistry at MgB₂Reactive Edges fromAb InitioMolecular Dynamics. ACS Applied Materials & Interfaces, 2022, 14, 20430-20442.	8.0	4
2	Enhanced mechanical performance via laser induced nanostructure formation in an additively manufactured lightweight aluminum alloy. Applied Materials Today, 2021, 22, 100972.	4.3	10
3	Early-Stage Aggregation and Crystalline Interactions of Peptoid Nanomembranes. Journal of Physical Chemistry Letters, 2021, 12, 6126-6133.	4.6	14
4	X-ray spectroscopic identification of strain and structure-based resonances in a series of saturated carbon-cage molecules: Adamantane, twistane, octahedrane, and cubane. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	3
5	Spontaneous dynamical disordering of borophenes in MgB2 and related metal borides. Nature Communications, 2021, 12, 6268.	12.8	14
6	Helical spin structure in iron chains with hybridized boundaries. Applied Physics Letters, 2020, 117, 213105.	3.3	4
7	Controlling interdependent meso-nanosecond dynamics and defect generation in metal 3D printing. Science, 2020, 368, 660-665.	12.6	291
8	Decoupling copolymer, lipid and carbon nanotube interactions in hybrid, biomimetic vesicles. Nanoscale, 2020, 12, 6545-6555.	5.6	5
9	The Insideâ€Outs of Metal Hydride Dehydrogenation: Imaging the Phase Evolution of the Liâ€Nâ€H Hydrogen Storage System. Advanced Materials Interfaces, 2020, 7, 1901905.	3.7	9
10	Suppression of low temperature magnetic ordering in samarium nanoparticles. Journal of Physics Condensed Matter, 2020, 32, 495803.	1.8	1
11	Resolving Detonation Nanodiamond Size Evolution and Morphology at Sub-Microsecond Timescales during High-Explosive Detonations. Journal of Physical Chemistry C, 2019, 123, 19153-19164.	3.1	18
12	Detonation synthesis of carbon nano-onions via liquid carbon condensation. Nature Communications, 2019, 10, 3819.	12.8	50
13	Ultrafast dynamics of laser-metal interactions in additive manufacturing alloys captured by in situ X-ray imaging. Materials Today Advances, 2019, 1, 100002.	5.2	105
14	Rapid feedback of chemical vapor deposition growth mechanisms by operando X-ray diffraction. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, 020601.	1.2	4
15	Four-Dimensional Imaging of ZnO-Coated Alumina Aerogels by Scanning Transmission X-ray Microscopy and Ptychographic Tomography. Journal of Physical Chemistry C, 2018, 122, 25374-25385.	3.1	13
16	Boron Doping and Defect Engineering of Graphene Aerogels for Ultrasensitive NO₂ Detection. Journal of Physical Chemistry C, 2018, 122, 20358-20365.	3.1	41
17	Nanointerfaceâ€Driven Reversible Hydrogen Storage in the Nanoconfined Liâ€“Nâ€“H System. Advanced Materials Interfaces, 2017, 4, 1600803.	3.7	30
18	Tunable Amorphous Photonic Materials with Pigmentary Colloidal Nanostructures. Advanced Optical Materials, 2017, 5, 1600838.	7.3	21

#	Article	IF	Citations
19	High performance aluminumâ€“cerium alloys for high-temperature applications. Materials Horizons, 2017, 4, 1070-1078.	12.2	155
20	Elucidating the mechanism of MgB₂initial hydrogenation via a combined experimentalâ€“theoretical study. Physical Chemistry Chemical Physics, 2017, 19, 22646-22658.	2.8	23
21	Laser damage mechanisms in conductive widegap semiconductor films. Optics Express, 2016, 24, 17616.	3.4	29
22	Supercooling of Hydrogen on Template Materials to Deterministically Seed Ignition-Quality Solid Fuel Layers. Fusion Science and Technology, 2016, 70, 184-190.	1.1	5
23	Nanosecond laser-induced damage of transparent conducting ITO film at 1064nm. , 2016, , .		0
24	Structure of Carbon Nanotube Porins in Lipid Bilayers: An in Situ Small-Angle X-ray Scattering (SAXS) Study. Nano Letters, 2016, 16, 4019-4024.	9.1	12
25	Strongly coupled electronic, magnetic, and lattice degrees of freedom in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>LaC</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:mrow></mml:math>under pressure. Physical Review B, 2015, 92, .	3.2	7
26	Mesoscale evolution of voids and microstructural changes in HMX-based explosives during heating through the Î²-Î´ phase transition. Journal of Applied Physics, 2015, 118, .	2.5	52
27	Universal roles of hydrogen in electrochemical performance of graphene: high rate capacity and atomistic origins. Scientific Reports, 2015, 5, 16190.	3.3	15
28	Potentialâ€Induced Electronic Structure Changes in Supercapacitor Electrodes Observed by In Operando Soft Xâ€Ray Spectroscopy. Advanced Materials, 2015, 27, 1512-1518.	21.0	25
29	Ordering in bio-inorganic hybrid nanomaterials probed by in situ scanning transmission X-ray microscopy. Nanoscale, 2015, 7, 9477-9486.	5.6	2
30	Quantitative Phase Composition of TiO₂-Coated Nanoporous Au Monoliths by X-ray Absorption Spectroscopy and Correlations to Catalytic Behavior. Journal of Physical Chemistry C, 2014, 118, 4078-4084.	3.1	22
31	Synthesis and Characterization of Highly Crystalline Graphene Aerogels. ACS Nano, 2014, 8, 11013-11022.	14.6	162
32	Electronic structure differences between H2-, Fe-, Co-, and Cu-phthalocyanine highly oriented thin films observed using NEXAFS spectroscopy. Journal of Chemical Physics, 2013, 139, 034701.	3.0	33
33	Cooperative Reorganization of Mineral and Template during Directed Nucleation of Calcium Carbonate. Journal of Physical Chemistry C, 2013, 117, 11076-11085.	3.1	15
34	X-ray Absorption Spectroscopy for the Structural Investigation of Self-Assembled-Monolayer-Directed Mineralization. Methods in Enzymology, 2013, 532, 165-187.	1.0	1
35	Preparation of Organothiol Self-Assembled Monolayers for Use in Templated Crystallization. Methods in Enzymology, 2013, 532, 209-224.	1.0	6
36	The thermodynamics of calcite nucleation at organic interfaces: Classical vs. non-classical pathways. Faraday Discussions, 2012, 159, 509.	3.2	189

#	Article	IF	Citations
37	Structural evolution, formation pathways and energetic controls during template-directed nucleation of CaCO3. Faraday Discussions, 2012, 159, 105.	3.2	45
38	Direction-Specific Interactions Control Crystal Growth by Oriented Attachment. Science, 2012, 336, 1014-1018.	12.6	958
39	A new approach to foam-lined indirect-drive NIF ignition targets. Nuclear Fusion, 2012, 52, 062001.	3.5	30
40	Ligand-Mediated Modification of the Electronic Structure of CdSe Quantum Dots. Nano Letters, 2012, 12, 2763-2767.	9.1	33
41	Macroscopic 3D Nanographene with Dynamically Tunable Bulk Properties. Advanced Materials, 2012, 24, 5083-5087.	21.0	111
42	High Surface Area, sp²-Cross-Linked Three-Dimensional Graphene Monoliths. Journal of Physical Chemistry Letters, 2011, 2, 921-925.	4.6	212
43	Mesitylene-Solvated Monolayers by Thermal Hydrosilylation. Japanese Journal of Applied Physics, 2011, 50, 01BD01.	1.5	0
44	Erbium doping effects on the conduction band edge in germanium nanocrystals. Applied Physics Letters, 2011, 98, 203107.	3.3	1
45	Mesitylene-Solvated Monolayers by Thermal Hydrosilylation. Japanese Journal of Applied Physics, 2011, 50, 01BD01.	1.5	1
46	X-ray absorption spectroscopy characterization of Zn underpotential deposition on Au(111) from phosphate supporting electrolyte. Electrochimica Acta, 2010, 55, 8532-8538.	5.2	13
47	Unanticipated Cå•C Bonds in Covalent Monolayers on Silicon Revealed by NEXAFS. Langmuir, 2010, 26, 1512-1515.	3.5	17
48	Determining orientational structure of diamondoid thiols attached to silver using near-edge X-ray absorption fine structure spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2009, 172, 69-77.	1.7	17
49	Determination of the Exciton Binding Energy in CdSe Quantum Dots. ACS Nano, 2009, 3, 325-330.	14.6	151
50	X-ray Absorption Spectroscopy Characterization of Cu Underpotential Deposition on Au(111) and Organothiol-Self-Assembled-Monolayer-Modified Au(111) Electrodes from Sulfate Supporting Electrolyte. Journal of Physical Chemistry C, 2009, 113, 12260-12271.	3.1	12
51	Evidence for Ligand-Induced Paramagnetism in CdSe Quantum Dots. Journal of the American Chemical Society, 2009, 131, 6888-6889.	13.7	52
52	Near-Edge X-ray Absorption Fine Structure Spectroscopy of Diamondoid Thiol Monolayers on Gold. Journal of the American Chemical Society, 2008, 130, 10536-10544.	13.7	47
53	Experimental Observation of Quantum Confinement in the Conduction Band of CdSe Quantum Dots. Physical Review Letters, 2007, 98, 146803.	7.8	59
54	Structural Development of Mercaptophenol Self-Assembled Monolayers and the Overlying Mineral Phase during Templated CaCO₃ Crystallization from a Transient Amorphous Film. Journal of the American Chemical Society, 2007, 129, 10370-10381.	13.7	89

#	Article	IF	Citations
55	Monochromatic Electron Photoemission from Diamondoid Monolayers. Science, 2007, 316, 1460-1462.	12.6	248
56	Fouling study of silicon oxide pores exposed to tap water. Materials Letters, 2007, 61, 2247-2250.	2.6	0
57	Effect of Ring Substitution Position on the Structural Conformation of Mercaptobenzoic Acid Self-Assembled Monolayers on Au(111). Langmuir, 2006, 22, 11134-11141.	3.5	29
58	Changes in Pore Size Distribution upon Thermal Cycling of TATB-based Explosives Measured by Ultra-Small Angle X-Ray Scattering. Propellants, Explosives, Pyrotechnics, 2006, 31, 466-471.	1.6	69
59	Localized Functionalization of Single Nanopores. Advanced Materials, 2006, 18, 427-431.	21.0	105
60	Time-resolved studies of diffusion via energy dispersive X-ray absorption spectroscopy. Electrochemistry Communications, 2003, 5, 1-5.	4.7	12
61	Application of Gas Microstrip Detectors for X-ray Absorption Spectroscopy in Common Process Gases. Analytical Chemistry, 2003, 75, 6571-6575.	6.5	8
62	A nondestructive technique for determining the spring constant of atomic force microscope cantilevers. Review of Scientific Instruments, 2001, 72, 2340-2343.	1.3	37