

# Jonathan R I Lee

## List of Publications by Year in descending order

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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	Direction-Specific Interactions Control Crystal Growth by Oriented Attachment. <i>Science</i> , 2012, 336, 1014-1018.	12.6	958
2	Controlling interdependent meso-nanosecond dynamics and defect generation in metal 3D printing. <i>Science</i> , 2020, 368, 660-665.	12.6	291
3	Monochromatic Electron Photoemission from Diamondoid Monolayers. <i>Science</i> , 2007, 316, 1460-1462.	12.6	248
4	High Surface Area, sp <sup>2</sup> -Cross-Linked Three-Dimensional Graphene Monoliths. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 921-925.	4.6	212
5	The thermodynamics of calcite nucleation at organic interfaces: Classical vs. non-classical pathways. <i>Faraday Discussions</i> , 2012, 159, 509.	3.2	189
6	Synthesis and Characterization of Highly Crystalline Graphene Aerogels. <i>ACS Nano</i> , 2014, 8, 11013-11022.	14.6	162
7	High performance aluminum-cerium alloys for high-temperature applications. <i>Materials Horizons</i> , 2017, 4, 1070-1078.	12.2	155
8	Determination of the Exciton Binding Energy in CdSe Quantum Dots. <i>ACS Nano</i> , 2009, 3, 325-330.	14.6	151
9	Macroscopic 3D Nanographene with Dynamically Tunable Bulk Properties. <i>Advanced Materials</i> , 2012, 24, 5083-5087.	21.0	111
10	Localized Functionalization of Single Nanopores. <i>Advanced Materials</i> , 2006, 18, 427-431.	21.0	105
11	Ultrafast dynamics of laser-metal interactions in additive manufacturing alloys captured by in situ X-ray imaging. <i>Materials Today Advances</i> , 2019, 1, 100002.	5.2	105
12	Structural Development of Mercaptophenol Self-Assembled Monolayers and the Overlying Mineral Phase during Templated CaCO <sub>3</sub> Crystallization from a Transient Amorphous Film. <i>Journal of the American Chemical Society</i> , 2007, 129, 10370-10381.	13.7	89
13	Changes in Pore Size Distribution upon Thermal Cycling of TATB-based Explosives Measured by Ultra-Small Angle X-Ray Scattering. <i>Propellants, Explosives, Pyrotechnics</i> , 2006, 31, 466-471.	1.6	69
14	Experimental Observation of Quantum Confinement in the Conduction Band of CdSe Quantum Dots. <i>Physical Review Letters</i> , 2007, 98, 146803.	7.8	59
15	Evidence for Ligand-Induced Paramagnetism in CdSe Quantum Dots. <i>Journal of the American Chemical Society</i> , 2009, 131, 6888-6889.	13.7	52
16	Mesoscale evolution of voids and microstructural changes in HMX-based explosives during heating through the $\beta$ - $\gamma$ phase transition. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	52
17	Detonation synthesis of carbon nano-onions via liquid carbon condensation. <i>Nature Communications</i> , 2019, 10, 3819.	12.8	50
18	Near-Edge X-ray Absorption Fine Structure Spectroscopy of Diamondoid Thiol Monolayers on Gold. <i>Journal of the American Chemical Society</i> , 2008, 130, 10536-10544.	13.7	47

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19	Structural evolution, formation pathways and energetic controls during template-directed nucleation of CaCO <sub>3</sub> . <i>Faraday Discussions</i> , 2012, 159, 105.	3.2	45
20	Boron Doping and Defect Engineering of Graphene Aerogels for Ultrasensitive NO <sub>2</sub> Detection. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20358-20365.	3.1	41
21	A nondestructive technique for determining the spring constant of atomic force microscope cantilevers. <i>Review of Scientific Instruments</i> , 2001, 72, 2340-2343.	1.3	37
22	Ligand-Mediated Modification of the Electronic Structure of CdSe Quantum Dots. <i>Nano Letters</i> , 2012, 12, 2763-2767.	9.1	33
23	Electronic structure differences between H <sub>2</sub> -, Fe-, Co-, and Cu-phthalocyanine highly oriented thin films observed using NEXAFS spectroscopy. <i>Journal of Chemical Physics</i> , 2013, 139, 034701.	3.0	33
24	A new approach to foam-lined indirect-drive NIF ignition targets. <i>Nuclear Fusion</i> , 2012, 52, 062001.	3.5	30
25	Nanointerface-Driven Reversible Hydrogen Storage in the Nanoconfined Li-N-H System. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600803.	3.7	30
26	Effect of Ring Substitution Position on the Structural Conformation of Mercaptobenzoic Acid Self-Assembled Monolayers on Au(111). <i>Langmuir</i> , 2006, 22, 11134-11141.	3.5	29
27	Laser damage mechanisms in conductive widegap semiconductor films. <i>Optics Express</i> , 2016, 24, 17616.	3.4	29
28	Potential-Induced Electronic Structure Changes in Supercapacitor Electrodes Observed by In Operando Soft X-Ray Spectroscopy. <i>Advanced Materials</i> , 2015, 27, 1512-1518.	21.0	25
29	Elucidating the mechanism of MgB <sub>2</sub> initial hydrogenation via a combined experimental-theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22646-22658.	2.8	23
30	Quantitative Phase Composition of TiO <sub>2</sub> -Coated Nanoporous Au Monoliths by X-ray Absorption Spectroscopy and Correlations to Catalytic Behavior. <i>Journal of Physical Chemistry C</i> , 2014, 118, 4078-4084.	3.1	22
31	Tunable Amorphous Photonic Materials with Pigmentary Colloidal Nanostructures. <i>Advanced Optical Materials</i> , 2017, 5, 1600838.	7.3	21
32	Resolving Detonation Nanodiamond Size Evolution and Morphology at Sub-Microsecond Timescales during High-Explosive Detonations. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19153-19164.	3.1	18
33	Determining orientational structure of diamondoid thiols attached to silver using near-edge X-ray absorption fine structure spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2009, 172, 69-77.	1.7	17
34	Unanticipated C-C Bonds in Covalent Monolayers on Silicon Revealed by NEXAFS. <i>Langmuir</i> , 2010, 26, 1512-1515.	3.5	17
35	Cooperative Reorganization of Mineral and Template during Directed Nucleation of Calcium Carbonate. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11076-11085.	3.1	15
36	Universal roles of hydrogen in electrochemical performance of graphene: high rate capacity and atomistic origins. <i>Scientific Reports</i> , 2015, 5, 16190.	3.3	15

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37	Early-Stage Aggregation and Crystalline Interactions of Peptoid Nanomembranes. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 6126-6133.	4.6	14
38	Spontaneous dynamical disordering of borophenes in MgB <sub>2</sub> and related metal borides. <i>Nature Communications</i> , 2021, 12, 6268.	12.8	14
39	X-ray absorption spectroscopy characterization of Zn underpotential deposition on Au(111) from phosphate supporting electrolyte. <i>Electrochimica Acta</i> , 2010, 55, 8532-8538.	5.2	13
40	Four-Dimensional Imaging of ZnO-Coated Alumina Aerogels by Scanning Transmission X-ray Microscopy and Ptychographic Tomography. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25374-25385.	3.1	13
41	Time-resolved studies of diffusion via energy dispersive X-ray absorption spectroscopy. <i>Electrochemistry Communications</i> , 2003, 5, 1-5.	4.7	12
42	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. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12260-12271.	3.1	12
43	Structure of Carbon Nanotube Porins in Lipid Bilayers: An in Situ Small-Angle X-ray Scattering (SAXS) Study. <i>Nano Letters</i> , 2016, 16, 4019-4024.	9.1	12
44	Enhanced mechanical performance via laser induced nanostructure formation in an additively manufactured lightweight aluminum alloy. <i>Applied Materials Today</i> , 2021, 22, 100972.	4.3	10
45	The Inside-Outs of Metal Hydride Dehydrogenation: Imaging the Phase Evolution of the Li-Ni-H Hydrogen Storage System. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901905.	3.7	9
46	Application of Gas Microstrip Detectors for X-ray Absorption Spectroscopy in Common Process Gases. <i>Analytical Chemistry</i> , 2003, 75, 6571-6575.	6.5	8
47	Strongly coupled electronic, magnetic, and lattice degrees of freedom in $\text{LaC}_5$ under pressure. <i>Physical Review B</i> , 2015, 92, .	3.2	7
48	Preparation of Organothiol Self-Assembled Monolayers for Use in Templated Crystallization. <i>Methods in Enzymology</i> , 2013, 532, 209-224.	1.0	6
49	Supercooling of Hydrogen on Template Materials to Deterministically Seed Ignition-Quality Solid Fuel Layers. <i>Fusion Science and Technology</i> , 2016, 70, 184-190.	1.1	5
50	Decoupling copolymer, lipid and carbon nanotube interactions in hybrid, biomimetic vesicles. <i>Nanoscale</i> , 2020, 12, 6545-6555.	5.6	5
51	Rapid feedback of chemical vapor deposition growth mechanisms by operando X-ray diffraction. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018, 36, 020601.	1.2	4
52	Helical spin structure in iron chains with hybridized boundaries. <i>Applied Physics Letters</i> , 2020, 117, 213105.	3.3	4
53	Understanding Hydrogenation Chemistry at MgB <sub>2</sub> Reactive Edges from <i>Ab Initio</i> Molecular Dynamics. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 20430-20442.	8.0	4
54	X-ray spectroscopic identification of strain and structure-based resonances in a series of saturated carbon-cage molecules: Adamantane, twistane, octahedrane, and cubane. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	2.1	3

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55	Ordering in bio-inorganic hybrid nanomaterials probed by in situ scanning transmission X-ray microscopy. <i>Nanoscale</i> , 2015, 7, 9477-9486.	5.6	2
56	Erbium doping effects on the conduction band edge in germanium nanocrystals. <i>Applied Physics Letters</i> , 2011, 98, 203107.	3.3	1
57	X-ray Absorption Spectroscopy for the Structural Investigation of Self-Assembled-Monolayer-Directed Mineralization. <i>Methods in Enzymology</i> , 2013, 532, 165-187.	1.0	1
58	Mesitylene-Solvated Monolayers by Thermal Hydrosilylation. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 01BD01.	1.5	1
59	Suppression of low temperature magnetic ordering in samarium nanoparticles. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 495803.	1.8	1
60	Fouling study of silicon oxide pores exposed to tap water. <i>Materials Letters</i> , 2007, 61, 2247-2250.	2.6	0
61	Mesitylene-Solvated Monolayers by Thermal Hydrosilylation. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 01BD01.	1.5	0
62	Nanosecond laser-induced damage of transparent conducting ITO film at 1064nm. , 2016, , .		0