

Joshua A Hammons

List of Publications by Year in descending order

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48
papers

1,374
citations

567281

15
h-index

345221

36
g-index

48
all docs

48
docs citations

48
times ranked

1682
citing authors

#	ARTICLE	IF	CITATIONS
1	Controlling interdependent meso-nanosecond dynamics and defect generation in metal 3D printing. <i>Science</i> , 2020, 368, 660-665.	12.6	291
2	High performance aluminum-cerium alloys for high-temperature applications. <i>Materials Horizons</i> , 2017, 4, 1070-1078.	12.2	155
3	A Generalized Electrochemical Aggregative Growth Mechanism. <i>Journal of the American Chemical Society</i> , 2013, 135, 11550-11561.	13.7	140
4	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
5	In situ synchrotron X-ray micro-tomography study of pitting corrosion in stainless steel. <i>Corrosion Science</i> , 2011, 53, 2684-2687.	6.6	94
6	Stability, Assembly, and Particle/Solvent Interactions of Pd Nanoparticles Electrodeposited from a Deep Eutectic Solvent. <i>Journal of Physical Chemistry C</i> , 2013, 117, 14381-14389.	3.1	68
7	The Role of Nanocluster Aggregation, Coalescence, and Recrystallization in the Electrochemical Deposition of Platinum Nanostructures. <i>Chemistry of Materials</i> , 2014, 26, 2396-2406.	6.7	58
8	Detonation synthesis of carbon nano-onions via liquid carbon condensation. <i>Nature Communications</i> , 2019, 10, 3819.	12.8	50
9	Enhanced thermal coarsening resistance in a nanostructured aluminum-cerium alloy produced by additive manufacturing. <i>Materials and Design</i> , 2021, 209, 109988.	7.0	31
10	Carbon Nanotube Porins in Amphiphilic Block Copolymers as Fully Synthetic Mimics of Biological Membranes. <i>Advanced Materials</i> , 2018, 30, e1803355.	21.0	29
11	Supported Silver Nanoparticle and Near-Interface Solution Dynamics in a Deep Eutectic Solvent. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1534-1545.	3.1	23
12	Submicrosecond Aggregation during Detonation Synthesis of Nanodiamond. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 5286-5293.	4.6	21
13	Pressure dependence of the laser-metal interaction under laser powder bed fusion conditions probed by in situ X-ray imaging. <i>Additive Manufacturing</i> , 2020, 32, 101084.	3.0	19
14	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
15	Ultra-low-density silver aerogels via freeze-substitution. <i>APL Materials</i> , 2018, 6, .	5.1	16
16	The impact of nano-bubbles on the laser performance of hafnia films deposited by oxygen assisted ion beam sputtering method. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	16
17	Multipulse electrodeposition of Ag nanoparticles on HOPG monitored by in-situ by Small-Angle X-ray Scattering. <i>Electrochemistry Communications</i> , 2011, 13, 1320-1323.	4.7	15
18	Extended hierarchical solvent perturbations from curved surfaces of mesoporous silica particles in a deep eutectic solvent. <i>Journal of Colloid and Interface Science</i> , 2018, 520, 81-90.	9.4	15

#	ARTICLE	IF	CITATIONS
19	Early-Stage Aggregation and Crystalline Interactions of Peptoid Nanomembranes. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 6126-6133.	4.6	14
20	XANES Study of the Chemistry of Molybdenum in Artificial Corrosion Pits in 316L Stainless Steel. <i>Journal of the Electrochemical Society</i> , 2011, 158, C111.	2.9	13
21	Monitoring Ligand-Mediated Growth and Aggregation of Metal Nanoparticles and Nanodendrites by In Situ Synchrotron Scattering Techniques. <i>ChemNanoMat</i> , 2015, 1, 109-114.	2.8	13
22	Detonation-induced transformation of graphite to hexagonal diamond. <i>Physical Review B</i> , 2020, 102, .	3.2	13
23	Interfacial Phenomena during Salt Layer Formation under High Rate Dissolution Conditions. <i>Journal of Physical Chemistry B</i> , 2013, 117, 6724-6732.	2.6	11
24	Surface Pb Nanoparticle Aggregation, Coalescence and Differential Capacitance in a Deep Eutectic Solvent Using a Simultaneous Sample-Rotated Small Angle X-ray Scattering and Electrochemical Methods Approach. <i>Electrochimica Acta</i> , 2017, 228, 462-473.	5.2	11
25	Observation of Variations in Condensed Carbon Morphology Dependent on Composition B Detonation Conditions. <i>Propellants, Explosives, Pyrotechnics</i> , 2020, 45, 347-355.	1.6	11
26	A method to detect retained gas during AC electrograining using in-situ small angle X-ray scattering. <i>Electrochemistry Communications</i> , 2010, 12, 717-719.	4.7	10
27	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
28	Soot-particle core-shell and fractal structures from small-angle X-ray scattering measurements in a flame. <i>Carbon</i> , 2022, 196, 440-456.	10.3	10
29	Small angle X-ray scattering analysis of the effect of cold compaction of Al/MoO ₃ thermite composites. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 193-199.	2.8	8
30	Colorado Auro: contribution to the understanding of a medieval recipe to colour gilded silver plates. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 111, 39-46.	2.3	8
31	Coupling in situ atomic force microscopy (AFM) and ultra-small-angle X-ray scattering (USAXS) to study the evolution of zinc morphology during electrodeposition within an imidazolium based ionic liquid electrolyte. <i>Electrochimica Acta</i> , 2020, 342, 136073.	5.2	8
32	Oblique angle deposition of boron carbide films by magnetron sputtering. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	8
33	He Bubble Concentration, Size and Strain in Implanted Aluminum by SAXS/WAXS. <i>Jom</i> , 2020, 72, 176-186.	1.9	7
34	Manipulating meso-scale solvent structure from Pd nanoparticle deposits in deep eutectic solvents. <i>Journal of Chemical Physics</i> , 2021, 155, 074505.	3.0	7
35	Effect of substrate temperature on sputter-deposited boron carbide films. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	7
36	In situ study of gas transport through Al(OH) ₃ gels during AC processing. <i>Electrochimica Acta</i> , 2012, 70, 10-18.	5.2	6

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37	Single-bunch imaging of detonation fronts using scattered synchrotron radiation. Journal of Applied Physics, 2018, 123, .	2.5	6
38	Correlating dynamic microstructure to observed color in electrophoretic displays via <i>in situ</i> small-angle x-ray scattering. Physical Review Materials, 2020, 4, .	2.4	6
39	Distinguishing Gas-Phase and Nanoparticle Contributions to Small-Angle X-ray Scattering in Reacting Aerosol Flows. Journal of Physical Chemistry A, 2022, 126, 3015-3026.	2.5	6
40	Decoupling copolymer, lipid and carbon nanotube interactions in hybrid, biomimetic vesicles. Nanoscale, 2020, 12, 6545-6555.	5.6	5
41	Probing He bubbles in naturally aged and annealed δ -Pu alloys using ultra-small-angle x-ray scattering. Journal of Nuclear Materials, 2018, 498, 505-510.	2.7	4
42	Synthesis and synchrotron characterisation of novel dual-template of hydroxyapatite scaffolds with controlled size porous distribution. Materials Letters, 2017, 190, 107-110.	2.6	3
43	An ORP-EIS approach to study the gas incorporation into aluminum etch films. Surface and Interface Analysis, 2016, 48, 699-705.	1.8	2
44	Small-Angle X-Ray Scattering of Ionic Liquids. , 2015, , 169-213.		1
45	A 3D nm-thin biomimetic membrane for ultimate molecular separation. Materials Horizons, 2020, 7, 2422-2430.	12.2	1
46	Pore and grain chemistry during sintering of garnet-type $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ solid-state electrolytes. Journal of Materials Chemistry A, 2022, 10, 9080-9090.	10.3	1
47	Membranes: Carbon Nanotube Porins in Amphiphilic Block Copolymers as Fully Synthetic Mimics of Biological Membranes (Adv. Mater. 51/2018). Advanced Materials, 2018, 30, 1870392.	21.0	0
48	Anomalous Anisotropic Nanoparticle Aggregation in $\text{Cu}_2(\text{OH})_3\text{Br}$ Gels. Langmuir, 2020, 36, 8311-8321.	3.5	0