Jordan A Hachtel

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7050471/publications.pdf

Version: 2024-02-01

		201575	206029
93	2,428	27	48
papers	citations	h-index	g-index

94	94	94	4141
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding Heterogeneities in Quantum Materials. Advanced Materials, 2023, 35, e2106909.	11.1	8
2	Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561.	13.7	40
3	Isotopes tracked on a sub-nanometre scale using electron spectroscopy. Nature, 2022, 603, 36-37.	13.7	0
4	Forecasting and modeling of the COVID-19 pandemic in the USA with a timed intervention model. Scientific Reports, 2022, 12, 4339.	1.6	7
5	Thermal Stability of Quasi-1D NbS₃ Nanoribbons and Their Transformation to 2D NbS₂: Insights from in Situ Electron Microscopy and Spectroscopy. Chemistry of Materials, 2022, 34, 279-287.	3.2	6
6	High Throughput Data-Driven Design of Laser-Crystallized 2D MoS₂ Chemical Sensors: A Demonstration for NO₂ Detection. ACS Applied Nano Materials, 2022, 5, 7549-7561.	2.4	5
7	Isotope-Resolved Electron Energy Loss Spectroscopy in a Monochromated Scanning Transmission Electron Microscope. Microscopy Today, 2021, 29, 36-41.	0.2	5
8	Enhancing hyperspectral EELS analysis of complex plasmonic nanostructures with pan-sharpening. Journal of Chemical Physics, 2021, 154, 014202.	1.2	5
9	Direct visualization of anionic electrons in an electride reveals inhomogeneities. Science Advances, 2021, 7, .	4.7	24
10	Separating Physically Distinct Mechanisms in Complex Infrared Plasmonic Nanostructures via Machine Learning Enhanced Electron Energy Loss Spectroscopy. Advanced Optical Materials, 2021, 9, 2001808.	3.6	13
11	Predictability of Localized Plasmonic Responses in Nanoparticle Assemblies. Small, 2021, 17, e2100181.	5.2	17
12	Correlating inhomogeneity in anionic electron density with hydrogen incorporation in Y5Si3 electrides. Microscopy and Microanalysis, 2021, 27, 146-147.	0.2	2
13	Probing Ultralow Energy Excitations at Ultrahigh Spatial Resolution with Monochromated Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2021, 27, 3460-3461.	0.2	0
14	Predicting local plasmon resonances and geometries using autoencoder networks in complex nanoparticle assemblies. Microscopy and Microanalysis, 2021, 27, 2766-2768.	0.2	0
15	Beyond NMF: Advanced Signal Processing and Machine Learning Methodologies for Hyperspectral Analysis in EELS. Microscopy and Microanalysis, 2021, 27, 322-324.	0.2	3
16	Revealing Nanoscale Confinement Effects on Hyperbolic Phonon Polaritons with an Electron Beam. Small, 2021, 17, e2103404.	5.2	14
17	Metalâ€Nitrogenâ€Carbon Clusterâ€Decorated Titanium Carbide is a Durable and Inexpensive Oxygen Reduction Reaction Electrocatalyst. ChemSusChem, 2021, 14, 4680-4689.	3.6	2
18	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. Angewandte Chemie - International Edition, 2020, 59, 1384-1396.	7.2	19

#	Article	IF	Citations
19	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. Angewandte Chemie, 2020, 132, 1400-1412.	1.6	4
20	Electroreduction of Carbon Dioxide into Selective Hydrocarbons at Low Overpotential Using Isomorphic Atomic Substitution in Copper Oxide. ACS Sustainable Chemistry and Engineering, 2020, 8, 179-189.	3.2	11
21	Cathodoluminescence Microscopies of Color Centers in Bulk and 2D Materials. Microscopy and Microanalysis, 2020, 26, 3028-3028.	0.2	0
22	Chemical and bonding analysis of liquids using liquid cell electron microscopy. MRS Bulletin, 2020, 45, 761-768.	1.7	5
23	Exploiting Electron Beam Interactions with Ultralow Energy Excitations for Nanoscale Analysis of Complex Optical and Biological Systems. Microscopy and Microanalysis, 2020, 26, 734-736.	0.2	0
24	2D Electrets of Ultrathin MoO₂ with Apparent Piezoelectricity. Advanced Materials, 2020, 32, e2000006.	11.1	51
25	Spectrally tunable infrared plasmonic F,Sn:In2O3 nanocrystal cubes. Journal of Chemical Physics, 2020, 152, 014709.	1.2	33
26	Ultrahigh Spatial Resolution of Mid-Infrared Optical Excitations with Monochromated Electron Energy-Loss Spectroscopy. , 2020, , .		0
27	EELS in STEM: the â€œSwiss Army Knifeâ€•of Spectroscopy. Microscopy and Microanalysis, 2019, 25, 620-621.	0.2	0
28	A dicyanobenzoquinone based cathode material for rechargeable lithium and sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 17888-17895.	5.2	35
29	Two-Dimensional Lateral Epitaxy of 2H (MoSe₂)â€“1Tâ€² (ReSe₂) Phases. Nano Letters, 2019, 19, 6338-6345.	4.5	30
30	Damage-Free Nanoscale Isotopic Analysis of Biological Materials with Vibrational Electron Spectroscopy. Microscopy and Microanalysis, 2019, 25, 1088-1089.	0.2	0
31	Defect-Induced Electronic Structure Changes in Cesium Lead Halide Nanocrystals. Microscopy and Microanalysis, 2019, 25, 660-661.	0.2	0
32	Etching of transition metal dichalcogenide monolayers into nanoribbon arrays. Nanoscale Horizons, 2019, 4, 689-696.	4.1	11
33	Strainâ€Induced Structural Deformation Study of 2D Mo_xW<sub>(1â€<sub>_x<sub>) S₂. Advanced Materials Interfaces, 2019, 6, 1801262.	1.9	13
34	Identification of site-specific isotopic labels by vibrational spectroscopy in the electron microscope. Science, 2019, 363, 525-528.	6.0	124
35	Controlling the Infrared Dielectric Function through Atomic-Scale Heterostructures. ACS Nano, 2019, 13, 6730-6741.	7.3	33
36	Emergence of shallow energy levels in B-doped Q-carbon: A high-temperature superconductor. Acta Materialia, 2019, 174, 153-159.	3.8	10

#	Article	IF	Citations
37	High-K dielectric sulfur-selenium alloys. Science Advances, 2019, 5, eaau9785.	4.7	13
38	Syntheses of Colloidal F:In₂O₃ Cubes: Fluorine-Induced Faceting and Infrared Plasmonic Response. Chemistry of Materials, 2019, 31, 2661-2676.	3.2	41
39	Spatially and spectrally resolved orbital angular momentum interactions in plasmonic vortex generators. Light: Science and Applications, 2019, 8, 33.	7.7	25
40	Low Contact Barrier in 2H/1Tâ€² MoTe₂ In-Plane Heterostructure Synthesized by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2019, 11, 12777-12785.	4.0	70
41	In-Situ Characterization of 2-Dim Materials at High Energy and Spatial Resolution. Microscopy and Microanalysis, 2019, 25, 17-18.	0.2	0
42	Progress in ultrahigh energy resolution EELS. Ultramicroscopy, 2019, 203, 60-67.	0.8	111
43	Atomic Structure and Electrical Activity of Grain Boundaries and Ruddlesdenâ€“Popper Faults in Cesium Lead Bromide Perovskite. Advanced Materials, 2019, 31, e1805047.	11.1	72
44	Structural Phase Transformation in Strained Monolayer MoWSe₂ Alloy. ACS Nano, 2018, 12, 3468-3476.	7.3	57
45	Exploring the capabilities of monochromated electron energy loss spectroscopy in the infrared regime. Scientific Reports, 2018, 8, 5637.	1.6	67
46	Deformation Mechanisms of Vertically Stacked WS₂ /MoS₂ Heterostructures: The Role of Interfaces. ACS Nano, 2018, 12, 4036-4044.	7.3	54
47	Colossal photon bunching in quasiparticle-mediated nanodiamond cathodoluminescence. Physical Review B, 2018, 97, .	1.1	26
48	The Nanoscale Optical Properties of Complex Nanostructures. Springer Theses, 2018, , .	0.0	0
49	Elucidating Ion Transport in Lithium-Ion Conductors by Combining Vibrational Spectroscopy in STEM and Neutron Scattering. Microscopy and Microanalysis, 2018, 24, 1496-1497.	0.2	0
50	Novel EELS Experiments in the Newly Opened Monochromated Regime. Microscopy and Microanalysis, 2018, 24, 418-419.	0.2	0
51	Atomic-resolution electric field measurements with a universal detector. Microscopy and Microanalysis, 2018, 24, 114-115.	0.2	1
52	Sub-Ã…ngstrom electric field measurements on a universal detector in a scanning transmission electron microscope. Advanced Structural and Chemical Imaging, 2018, 4, 10.	4.0	84
53	Towards topological spectroscopy in the electron microscope with atomic resolution. Microscopy and Microanalysis, 2018, 24, 926-927.	0.2	1
54	Vibrational Spectroscopy of Liquid Water by Monochromated Aloof EELS. Microscopy and Microanalysis, 2018, 24, 422-423.	0.2	1

#	Article	IF	Citations
55	Significantly Enhanced Emission Stability of CsPbBr₃ Nanocrystals via Chemically Induced Fusion Growth for Optoelectronic Devices. ACS Applied Nano Materials, 2018, 1, 6091-6098.	2.4	42
56	Telluride-Based Atomically Thin Layers of Ternary Two-Dimensional Transition Metal Dichalcogenide Alloys. Chemistry of Materials, 2018, 30, 7262-7268.	3.2	37
57	Thermally Induced 2D Alloyâ€Heterostructure Transformation in Quaternary Alloys. Advanced Materials, 2018, 30, e1804218.	11.1	29
58	Theoretical and Experimental Insight into the Mechanism for Spontaneous Vertical Growth of ReS 2 Nanosheets. Advanced Functional Materials, 2018, 28, 1801286.	7.8	35
59	Vibrational Spectroscopy of Water with High Spatial Resolution. Advanced Materials, 2018, 30, e1802702.	11.1	45
60	Polarization- and wavelength-resolved near-field imaging of complex plasmonic modes in Archimedean nanospirals. Optics Letters, 2018, 43, 927.	1.7	13
61	Theory-assisted determination of nano-rippling and impurities in atomic resolution images of angle-mismatched bilayer graphene. 2D Materials, 2018, 5, 041008.	2.0	5
62	Atomic-Scale Identification of Planar Defects in Cesium Lead Bromide Perovskite Nanocrystals. Microscopy and Microanalysis, 2018, 24, 100-101.	0.2	2
63	Advanced Electron Microscopy for Complex Nanotechnology. Springer Theses, 2018, , 53-74.	0.0	0
64	Extracting Interface Absorption Effects from First-Principles. Springer Theses, 2018, , 37-51.	0.0	0
65	Colossal Photon Bunching Driven by Phonon Recombination Dynamics. , 2018, , .		0
66	Total Ionizing Dose Effects on Strained Ge pMOS FinFETs on Bulk Si. IEEE Transactions on Nuclear Science, 2017, 64, 226-232.	1.2	28
67	Re Doping in 2D Transition Metal Dichalcogenides as a New Route to Tailor Structural Phases and Induced Magnetism. Advanced Materials, 2017, 29, 1703754.	11.1	191
68	Memristive devices from ZnO nanowire bundles and meshes. Applied Physics Letters, 2017, 111, .	1.5	11
69	Phase Segregation Behavior of Two-Dimensional Transition Metal Dichalcogenide Binary Alloys Induced by Dissimilar Substitution. Chemistry of Materials, 2017, 29, 7431-7439.	3.2	27
70	2D Materials: Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	11.1	1
71	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. Advanced Materials, 2017, 29, 1702457.	11.1	186
72	Observing Nanoscale Orbital Angular Momentum in Plasmon Vortices with Cathodoluminescence. Microscopy and Microanalysis, 2017, 23, 1694-1695.	0.2	0

#	Article	IF	Citations
73	2D Materials: Re Doping in 2D Transition Metal Dichalcogenides as a New Route to Tailor Structural Phases and Induced Magnetism (Adv. Mater. 43/2017). Advanced Materials, 2017, 29, .	11.1	1
74	Near-Field Mid-Infrared Plasmonics in Complex Nanostructures with Monochromated Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2017, 23, 1532-1533.	0.2	0
75	Directly Identifying Phase Segregation in 2D Quaternary Alloys. Microscopy and Microanalysis, 2017, 23, 1438-1439.	0.2	1
76	Nano-chirality detection with vortex plasmon modes. , 2017, , .		0
77	Colossal Bunching in Nanodiamond Cathodoluminescence. , 2017, , .		0
78	Unveiling Complex Plasmonic Resonances in Archimedean Nanospirals through Cathodoluminescence in a Scanning Transmission Electron Microscope. Microscopy and Microanalysis, 2016, 22, 266-267.	0.2	3
79	Effects of Negative-Bias-Temperature-Instability on Low-Frequency Noise in SiGe ${p}$ MOSFETs. IEEE Transactions on Device and Materials Reliability, 2016, 16, 541-548.	1.5	16
80	Probing plasmons in three dimensions by combining complementary spectroscopies in a scanning transmission electron microscope. Nanotechnology, 2016, 27, 155202.	1.3	5
81	Gold nanotriangles decorated with superparamagnetic iron oxide nanoparticles: a compositional and microstructural study. Faraday Discussions, 2016, 191, 215-227.	1.6	20
82	Quantitative first-principles theory of interface absorption in multilayer heterostructures. Applied Physics Letters, 2015, 107, 091908.	1.5	3
83	Direct Observation of Plasmonic Enhancement of Emission in Ag-nanoparticle-decorated ZnO nanostructures. Microscopy and Microanalysis, 2015, 21, 2389-2390.	0.2	0
84	Probing Plasmons in Three Dimensions within Random Morphology Nanostructures. Microscopy and Microanalysis, 2015, 21, 1683-1684.	0.2	0
85	Total Ionizing Dose Effects on Ge Channel <formula formulatype="inline"><tex Notation="TeX">p</tex></formula>FETs with Raised <formula formulatype="inline"><tex Notation="TeX">${m Si}_{0.55}{m Ge}_{0.45}$</tex></formula> Source/Drain. IEEE Transactions on Nuclear Science, 2015, 62, 2412-2416.	1.2	7
86	Magnetic gold nanotriangles by microwave-assisted polyol synthesis. Nanoscale, 2015, 7, 14039-14046.	2.8	39
87	Spatially-Resolved, Three-Dimensional Investigation of Surface Plasmon Resonances in Complex Nanostructures. , 2015, , .		0
88	Activation Energies for Oxide- and Interface-Trap Charge Generation Due to Negative-Bias Temperature Stress of Si-Capped SiGe-pMOSFETs. IEEE Transactions on Device and Materials Reliability, 2015, 15, 352-358.	1.5	9
89	The Physics of the B Factories. European Physical Journal C, 2014, 74, 1.	1.4	292
90	Bias Dependence of Total Ionizing Dose Effects in SiGe-MOS FinFETs<formula formulatype="inline"> <tex Notation="TeX"/> </formula>. IEEE Transactions on Nuclear Science, 2014, 61, 2834-2838.	1.2	57

#	Article	IF	Citations
91	The BB detector: Upgrades, operation and performance. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 729, 615-701.	0.7	148
92	Observation ofB+â†'Î·Ï•and search forB0decays toÎ·â€²Î·,Î·Ï€0,Î·â€²Ï€0, andÏ‰Ï€0. Physical Review D, 2008, 78, .	1.6	11
93	Search for neutralB-meson decays toa0Ï€,a0K,Î·Ï0, andÎ·f0. Physical Review D, 2007, 75, .	1.6	11