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	The Physics of the B Factories. European Physical Journal C, 2014, 74, 1.	1.4	292
2	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
3	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. Advanced Materials, 2017, 29, 1702457.	11.1	186
4	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
5	Identification of site-specific isotopic labels by vibrational spectroscopy in the electron microscope. Science, 2019, 363, 525-528.	6.0	124
6	Progress in ultrahigh energy resolution EELS. Ultramicroscopy, 2019, 203, 60-67.	0.8	111
7	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
8	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
9	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
10	Exploring the capabilities of monochromated electron energy loss spectroscopy in the infrared regime. Scientific Reports, 2018, 8, 5637.	1.6	67
11	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
12	Structural Phase Transformation in Strained Monolayer MoWSe₂ Alloy. ACS Nano, 2018, 12, 3468-3476.	7.3	57
13	Deformation Mechanisms of Vertically Stacked WS₂ /MoS₂ Heterostructures: The Role of Interfaces. ACS Nano, 2018, 12, 4036-4044.	7.3	54
14	2D Electrets of Ultrathin MoO₂ with Apparent Piezoelectricity. Advanced Materials, 2020, 32, e2000006.	11.1	51
15	Vibrational Spectroscopy of Water with High Spatial Resolution. Advanced Materials, 2018, 30, e1802702.	11.1	45
16	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
17	Syntheses of Colloidal F:In₂O₃ Cubes: Fluorine-Induced Faceting and Infrared Plasmonic Response. Chemistry of Materials, 2019, 31, 2661-2676.	3.2	41
18	Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561.	13.7	40

#	Article	IF	Citations
19	Magnetic gold nanotriangles by microwave-assisted polyol synthesis. Nanoscale, 2015, 7, 14039-14046.	2.8	39
20	Telluride-Based Atomically Thin Layers of Ternary Two-Dimensional Transition Metal Dichalcogenide Alloys. Chemistry of Materials, 2018, 30, 7262-7268.	3.2	37
21	Theoretical and Experimental Insight into the Mechanism for Spontaneous Vertical Growth of ReS 2 Nanosheets. Advanced Functional Materials, 2018, 28, 1801286.	7.8	35
22	A dicyanobenzoquinone based cathode material for rechargeable lithium and sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 17888-17895.	5.2	35
23	Controlling the Infrared Dielectric Function through Atomic-Scale Heterostructures. ACS Nano, 2019, 13, 6730-6741.	7.3	33
24	Spectrally tunable infrared plasmonic F,Sn:In2O3 nanocrystal cubes. Journal of Chemical Physics, 2020, 152, 014709.	1.2	33
25	Two-Dimensional Lateral Epitaxy of 2H (MoSe₂)â€“1Tâ€² (ReSe₂) Phases. Nano Letters, 2019, 19, 6338-6345.	4.5	30
26	Thermally Induced 2D Alloyâ€Heterostructure Transformation in Quaternary Alloys. Advanced Materials, 2018, 30, e1804218.	11.1	29
27	Total Ionizing Dose Effects on Strained Ge pMOS FinFETs on Bulk Si. IEEE Transactions on Nuclear Science, 2017, 64, 226-232.	1.2	28
28	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
29	Colossal photon bunching in quasiparticle-mediated nanodiamond cathodoluminescence. Physical Review B, 2018, 97, .	1.1	26
30	Spatially and spectrally resolved orbital angular momentum interactions in plasmonic vortex generators. Light: Science and Applications, 2019, 8, 33.	7.7	25
31	Direct visualization of anionic electrons in an electride reveals inhomogeneities. Science Advances, 2021, 7, .	4.7	24
32	Gold nanotriangles decorated with superparamagnetic iron oxide nanoparticles: a compositional and microstructural study. Faraday Discussions, 2016, 191, 215-227.	1.6	20
33	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. Angewandte Chemie - International Edition, 2020, 59, 1384-1396.	7.2	19
34	Predictability of Localized Plasmonic Responses in Nanoparticle Assemblies. Small, 2021, 17, e2100181.	5.2	17
35	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
36	Revealing Nanoscale Confinement Effects on Hyperbolic Phonon Polaritons with an Electron Beam. Small, 2021, 17, e2103404.	5.2	14

#	Article	IF	Citations
37	Polarization- and wavelength-resolved near-field imaging of complex plasmonic modes in Archimedean nanospirals. Optics Letters, 2018, 43, 927.	1.7	13
38	Strainâ€Induced Structural Deformation Study of 2D Mo_xW_{(1â€<}_x₎ S₂. Advanced Materials Interfaces, 2019, 6, 1801262.	1.9	13
39	High-K dielectric sulfur-selenium alloys. Science Advances, 2019, 5, eaau9785.	4.7	13
40	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
41	Search for neutralB-meson decays toa0Ï€,a0K,Î·Ï0, andÎ·f0. Physical Review D, 2007, 75, .	1.6	11
42	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
43	Memristive devices from ZnO nanowire bundles and meshes. Applied Physics Letters, 2017, 111, .	1.5	11
44	Etching of transition metal dichalcogenide monolayers into nanoribbon arrays. Nanoscale Horizons, 2019, 4, 689-696.	4.1	11
45	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
46	Emergence of shallow energy levels in B-doped Q-carbon: A high-temperature superconductor. Acta Materialia, 2019, 174, 153-159.	3.8	10
47	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
48	Understanding Heterogeneities in Quantum Materials. Advanced Materials, 2023, 35, e2106909.	11.1	8
49	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
50	Forecasting and modeling of the COVID-19 pandemic in the USA with a timed intervention model. Scientific Reports, 2022, 12, 4339.	1.6	7
51	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
52	Probing plasmons in three dimensions by combining complementary spectroscopies in a scanning transmission electron microscope. Nanotechnology, 2016, 27, 155202.	1.3	5
53	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
54	Chemical and bonding analysis of liquids using liquid cell electron microscopy. MRS Bulletin, 2020, 45, 761-768.	1.7	5

#	Article	IF	Citations
55	Isotope-Resolved Electron Energy Loss Spectroscopy in a Monochromated Scanning Transmission Electron Microscope. Microscopy Today, 2021, 29, 36-41.	0.2	5
56	Enhancing hyperspectral EELS analysis of complex plasmonic nanostructures with pan-sharpening. Journal of Chemical Physics, 2021, 154, 014202.	1.2	5
57	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
58	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. Angewandte Chemie, 2020, 132, 1400-1412.	1.6	4
59	Quantitative first-principles theory of interface absorption in multilayer heterostructures. Applied Physics Letters, 2015, 107, 091908.	1.5	3
60	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
61	Beyond NMF: Advanced Signal Processing and Machine Learning Methodologies for Hyperspectral Analysis in EELS. Microscopy and Microanalysis, 2021, 27, 322-324.	0.2	3
62	Atomic-Scale Identification of Planar Defects in Cesium Lead Bromide Perovskite Nanocrystals. Microscopy and Microanalysis, 2018, 24, 100-101.	0.2	2
63	Correlating inhomogeneity in anionic electron density with hydrogen incorporation in Y5Si3 electrides. Microscopy and Microanalysis, 2021, 27, 146-147.	0.2	2
64	Metalâ€Nitrogenâ€Carbon Clusterâ€Decorated Titanium Carbide is a Durable and Inexpensive Oxygen Reduction Reaction Electrocatalyst. ChemSusChem, 2021, 14, 4680-4689.	3.6	2
65	2D Materials: Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	11.1	1
66	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
67	Directly Identifying Phase Segregation in 2D Quaternary Alloys. Microscopy and Microanalysis, 2017, 23, 1438-1439.	0.2	1
68	Atomic-resolution electric field measurements with a universal detector. Microscopy and Microanalysis, 2018, 24, 114-115.	0.2	1
69	Towards topological spectroscopy in the electron microscope with atomic resolution. Microscopy and Microanalysis, 2018, 24, 926-927.	0.2	1
70	Vibrational Spectroscopy of Liquid Water by Monochromated Aloof EELS. Microscopy and Microanalysis, 2018, 24, 422-423.	0.2	1
71	Direct Observation of Plasmonic Enhancement of Emission in Ag-nanoparticle-decorated ZnO nanostructures. Microscopy and Microanalysis, 2015, 21, 2389-2390.	0.2	0
72	Probing Plasmons in Three Dimensions within Random Morphology Nanostructures. Microscopy and Microanalysis, 2015, 21, 1683-1684.	0.2	0

#	Article	IF	Citations
73	Spatially-Resolved, Three-Dimensional Investigation of Surface Plasmon Resonances in Complex Nanostructures. , 2015, , .		0
74	Observing Nanoscale Orbital Angular Momentum in Plasmon Vortices with Cathodoluminescence. Microscopy and Microanalysis, 2017, 23, 1694-1695.	0.2	0
75	Near-Field Mid-Infrared Plasmonics in Complex Nanostructures with Monochromated Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2017, 23, 1532-1533.	0.2	0
76	The Nanoscale Optical Properties of Complex Nanostructures. Springer Theses, 2018, , .	0.0	0
77	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
78	Novel EELS Experiments in the Newly Opened Monochromated Regime. Microscopy and Microanalysis, 2018, 24, 418-419.	0.2	0
79	EELS in STEM: the â€œSwiss Army Knifeâ€•of Spectroscopy. Microscopy and Microanalysis, 2019, 25, 620-621.	0.2	0
80	Damage-Free Nanoscale Isotopic Analysis of Biological Materials with Vibrational Electron Spectroscopy. Microscopy and Microanalysis, 2019, 25, 1088-1089.	0.2	0
81	Defect-Induced Electronic Structure Changes in Cesium Lead Halide Nanocrystals. Microscopy and Microanalysis, 2019, 25, 660-661.	0.2	0
82	In-Situ Characterization of 2-Dim Materials at High Energy and Spatial Resolution. Microscopy and Microanalysis, 2019, 25, 17-18.	0.2	0
83	Cathodoluminescence Microscopies of Color Centers in Bulk and 2D Materials. Microscopy and Microanalysis, 2020, 26, 3028-3028.	0.2	0
84	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
85	Probing Ultralow Energy Excitations at Ultrahigh Spatial Resolution with Monochromated Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2021, 27, 3460-3461.	0.2	0
86	Predicting local plasmon resonances and geometries using autoencoder networks in complex nanoparticle assemblies. Microscopy and Microanalysis, 2021, 27, 2766-2768.	0.2	0
87	Nano-chirality detection with vortex plasmon modes. , 2017, , .		0
88	Colossal Bunching in Nanodiamond Cathodoluminescence. , 2017, , .		0
89	Advanced Electron Microscopy for Complex Nanotechnology. Springer Theses, 2018, , 53-74.	0.0	0
90	Extracting Interface Absorption Effects from First-Principles. Springer Theses, 2018, , 37-51.	0.0	0

#	Article	IF	Citations
91	Colossal Photon Bunching Driven by Phonon Recombination Dynamics. , 2018, , .		0
92	Ultrahigh Spatial Resolution of Mid-Infrared Optical Excitations with Monochromated Electron Energy-Loss Spectroscopy. , 2020, , .		0
93	Isotopes tracked on a sub-nanometre scale using electron spectroscopy. Nature, 2022, 603, 36-37.	13.7	0