R E Dunin-Borkowski

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

14,615 603 58 100 h-index citations g-index papers 6.58 16,537 637 5.8 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
603	Theoretical and practical aspects of the design and production of synthetic holograms for transmission electron microscopy. <i>Journal of Applied Physics</i> , 2022 , 131, 031101	2.5	2
602	A High Conductivity One-Dimensional Ed Conjugated Metal-Organic Framework with Efficient Polysulfide Trapping-Diffusion-Catalysis in Lithium-Sulfur Batteries <i>Advanced Materials</i> , 2022 , e21088	3 5 4	12
601	Prospect for measuring two-dimensional van der Waals magnets by electron magnetic chiral dichroism <i>Ultramicroscopy</i> , 2022 , 234, 113476	3.1	
600	All room-temperature synthesis, N2 photofixation and reactivation over 2D cobalt oxides. <i>Applied Catalysis B: Environmental</i> , 2022 , 304, 121001	21.8	0
599	Amorphizing noble metal chalcogenide catalysts at the single-layer limit towards hydrogen production. <i>Nature Catalysis</i> , 2022 , 5, 212-221	36.5	14
598	Direct growth of single-metal-atom chains 2022 , 1, 245-253		1
597	Highly complex magnetic behavior resulting from hierarchical phase separation in AlCo(Cr)FeNi high-entropy alloys <i>IScience</i> , 2022 , 25, 104047	6.1	О
596	Imaging biological macromolecules in thick specimens: The role of inelastic scattering in cryoEM <i>Ultramicroscopy</i> , 2022 , 237, 113510	3.1	1
595	A novel Ed conjugated cobalt tetraaza[14]annulene based atomically dispersed electrocatalyst for efficient CO2 reduction. <i>Chemical Engineering Journal</i> , 2022 , 442, 136129	14.7	3
594	Atomic-Scale Insights into Nickel Exsolution on LaNiO Catalysts via Electron Microscopy <i>Journal of Physical Chemistry C</i> , 2022 , 126, 786-796	3.8	1
593	Molecular engineering to introduce carbonyl between nickel salophen active sites to enhance electrochemical CO2 reduction to methanol. <i>Applied Catalysis B: Environmental</i> , 2022 , 314, 121451	21.8	4
592	A Self-Flux-Biased NanoSQUID with Four NbN-TiN-NbN Nanobridge Josephson Junctions. <i>Electronics (Switzerland)</i> , 2022 , 11, 1704	2.6	
591	Voltage-controlled three-electron-beam interference by a three-element Boersch phase shifter with top and bottom shielding electrodes 2021 ,		1
590	Structural Phase Transition and In-Situ Energy Storage Pathway in Nonpolar Materials: A Review <i>Materials</i> , 2021 , 14,	3.5	1
589	Shaping of Electron Beams Using Sculpted Thin Films ACS Photonics, 2021, 8, 3394-3405	6.3	1
588	Titanium Nitride as a New Prospective Material for NanoSQUIDs and Superconducting Nanobridge Electronics. <i>Nanomaterials</i> , 2021 , 11,	5.4	5
587	Continuous illumination picosecond imaging using a delay line detector in a transmission electron microscope <i>Ultramicroscopy</i> , 2021 , 233, 113392	3.1	O

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586	Atomic Structure and Electron Magnetic Circular Dichroism of Individual Rock Salt Structure Antiphase Boundaries in Spinel Ferrites. <i>Advanced Functional Materials</i> , 2021 , 31, 2008306	15.6	2	
585	Multiple polarization orders in individual twinned colloidal nanocrystals of centrosymmetric HfO2. <i>Matter</i> , 2021 , 4, 986-1000	12.7	4	
584	Operando high-pressure investigation of size-controlled CuZn catalysts for the methanol synthesis reaction. <i>Nature Communications</i> , 2021 , 12, 1435	17.4	15	
583	Experimental Demonstration of an Electrostatic Orbital Angular Momentum Sorter for Electron Beams. <i>Physical Review Letters</i> , 2021 , 126, 094802	7.4	19	
582	A sorter for electrons based on magnetic elements. <i>Ultramicroscopy</i> , 2021 , 231, 113287	3.1		
581	Combining quantitative ADF STEM with SiN membrane-based MEMS devices: A simulation study with Pt nanoparticles. <i>Ultramicroscopy</i> , 2021 , 231, 113270	3.1		
580	Influence of surface band bending on a narrow band gap semiconductor: Tunneling atomic force studies of graphite with Bernal and rhombohedral stacking orders. <i>Physical Review Materials</i> , 2021 , 5,	3.2	2	
579	Microstructural insights into the coercivity enhancement of grain-boundary-diffusion-processed Tb-treated Nd-Fe-B sintered magnets beyond the core-shell formation mechanism. <i>Journal of Alloys and Compounds</i> , 2021 , 864, 158915	5.7	3	
578	Temperature dependence of magnetization processes in Sm(Co, Fe, Cu, Zr)z magnets with different nanoscale microstructures. <i>Journal of Applied Physics</i> , 2021 , 129, 183903	2.5	2	
577	Unravelling Magnetic Nanochain Formation in Dispersion for In Vivo Applications. <i>Advanced Materials</i> , 2021 , 33, e2008683	24	1	
576	Atomically-resolved interlayer charge ordering and its interplay with superconductivity in YBaCuO. <i>Nature Communications</i> , 2021 , 12, 3893	17.4	2	
575	Magnetic Nanoparticles: Unravelling Magnetic Nanochain Formation in Dispersion for In Vivo Applications (Adv. Mater. 24/2021). <i>Advanced Materials</i> , 2021 , 33, 2170189	24		
574	Differentiation between strain and charge mediated magnetoelectric coupling in La0.7Sr0.3MnO3/Pb(Mg1/3Nb2/3)0.7Ti0.3O3(001). <i>New Journal of Physics</i> , 2021 , 23, 063043	2.9	3	
573	Reducing Decoherence in Fluctuation Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2021 , 27, 177	'6 ∆ .₹77	,	
572	In situ transmission electron microscopy of magnetic transitions. <i>Microscopy and Microanalysis</i> , 2021 , 27, 2174-2176	0.5		
571	How much can inelastically scattered electrons contribute to electron cryotomography of biological specimens?. <i>Microscopy and Microanalysis</i> , 2021 , 27, 3212-3214	0.5		
570	Non-topographic current contrast in scanning field emission microscopy. <i>Royal Society Open Science</i> , 2021 , 8, 210511	3.3	1	
569	Focused ion beam fabrication of Janus bimetallic cylinders acting as drift tube Zernike phase plates for electron microscopy. <i>Journal of Applied Physics</i> , 2021 , 130, 024507	2.5	1	

568	Extraction of 3D quantitative maps using EDS-STEM tomography and HAADF-EDS bimodal tomography. <i>Ultramicroscopy</i> , 2021 , 220, 113166	3.1	
567	Atomically dispersed Fe in a C2N Based Catalyst as a Sulfur Host for Efficient LithiumBulfur Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2003507	21.8	36
566	Towards data-driven next-generation transmission electron microscopy. <i>Nature Materials</i> , 2021 , 20, 27	4- 27 9	48
565	Off-axis electron holography of NBl-type skyrmions in multilayers of heavy metals and ferromagnets. <i>Ultramicroscopy</i> , 2021 , 220, 113155	3.1	3
564	A cartridge-based turning specimen holder with wireless tilt angle measurement for magnetic induction mapping in the transmission electron microscope. <i>Ultramicroscopy</i> , 2021 , 220, 113098	3.1	2
563	In Situ Observation of Point-Defect-Induced Unit-Cell-Wise Energy Storage Pathway in Antiferroelectric PbZrO3. <i>Advanced Functional Materials</i> , 2021 , 31, 2008609	15.6	8
562	Atomic-scale characterization of commensurate and incommensurate vacancy superstructures in natural pyrrhotites. <i>American Mineralogist</i> , 2021 , 106, 82-96	2.9	2
561	Mechanism of magnetization reduction in iron oxide nanoparticles. <i>Nanoscale</i> , 2021 , 13, 6965-6976	7.7	13
560	Bulk nanomachining of cantilevers with Nb nanoSQUIDs based on nanobridge Josephson junctions. <i>Superconductor Science and Technology</i> , 2021 , 34, 035014	3.1	3
559	2D-Organic Layered Materials: Atomically dispersed Fe in a C2N Based Catalyst as a Sulfur Host for Efficient LithiumBulfur Batteries (Adv. Energy Mater. 5/2021). <i>Advanced Energy Materials</i> , 2021 , 11, 2170022	21.8	O
558	Multifunctional Noble Metal Phosphide Electrocatalysts for Organic Molecule Electro-Oxidation. <i>ACS Applied Energy Materials</i> , 2021 , 4, 1593-1600	6.1	4
557	Efficient large field of view electron phase imaging using near-field electron ptychography with a diffuser. <i>Ultramicroscopy</i> , 2021 , 231, 113257	3.1	5
556	Towards laser printing of magnetocaloric structures by inducing a magnetic phase transition in iron-rhodium nanoparticles. <i>Scientific Reports</i> , 2021 , 11, 13719	4.9	1
555	Estimating illumination coherence width from focused-probe intensity profiles. <i>Microscopy and Microanalysis</i> , 2021 , 27, 738-740	0.5	
554	Three-Dimensional Measurement of Magnetic Moment Vectors Using Electron Magnetic Chiral Dichroism at Atomic Scale. <i>Physical Review Letters</i> , 2021 , 127, 087202	7.4	0
553	Live Processing of Momentum-Resolved STEM Data for First Moment Imaging and Ptychography. <i>Microscopy and Microanalysis</i> , 2021 , 27, 1078-1092	0.5	3
552	Single-particle cryo-EM: alternative schemes to improve dose efficiency. <i>Journal of Synchrotron Radiation</i> , 2021 , 28, 1343-1356	2.4	1
551	Quantitative imaging of the magnetic field distribution in an artificial spin ice studied by off-axis electron holography. <i>Journal of Magnetism and Magnetic Materials</i> , 2021 , 168535	2.8	2

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550	Alignment of electron optical beam shaping elements using a convolutional neural network. <i>Ultramicroscopy</i> , 2021 , 228, 113338	3.1	5	
549	Ferroelectric phase-transition frustration near a tricritical composition point. <i>Nature Communications</i> , 2021 , 12, 5322	17.4	4	
548	Magnetic skyrmion braids. <i>Nature Communications</i> , 2021 , 12, 5316	17.4	2	
547	Discovery and Implications of Hidden Atomic-Scale Structure in a Metallic Meteorite. <i>Nano Letters</i> , 2021 , 21, 8135-8142	11.5	1	
546	Experimental realization of a /2 vortex mode converter for electrons using a spherical aberration corrector. <i>Ultramicroscopy</i> , 2021 , 229, 113340	3.1	2	
545	Unveiling the three-dimensional magnetic texture of skyrmion tubes <i>Nature Nanotechnology</i> , 2021	28.7	6	
544	Near-4D STEM with an Orbital Angular Momentum Sorter: Advantages and Challenges. <i>Microscopy and Microanalysis</i> , 2020 , 26, 236-238	0.5	O	
543	Design, Realization and Challenges of an Orbital Angular Momentum Sorter: A New Instrument for Phase Microscopy. <i>Microscopy and Microanalysis</i> , 2020 , 26, 1538-1539	0.5	Ο	
542	Project Tomo: Toward Atomic-scale Analytical Tomography. <i>Microscopy and Microanalysis</i> , 2020 , 26, 261	&-2 ₅ 621	12	
541	Fabrication of low aspect ratio three-element Boersch phase shifters for voltage-controlled three electron beam interference. <i>Journal of Applied Physics</i> , 2020 , 128, 134502	2.5	6	
540	Combination of Electron Energy-loss Spectroscopy and Orbital Angular Momentum Spectroscopy. Applications to Electron Magnetic Chiral Dichroism, Plasmon-loss, and Core-loss. <i>Microscopy and Microanalysis</i> , 2020 , 26, 1752-1753	0.5	1	
539	Operando Transmission Electron Microscopy Study of All-Solid-State Battery Interface: Redistribution of Lithium among Interconnected Particles. <i>ACS Applied Energy Materials</i> , 2020 , 3, 5101-5	59 0 6	8	
538	STEM electron beam-induced current measurements of organic-inorganic perovskite solar cells. <i>Ultramicroscopy</i> , 2020 , 217, 113047	3.1	3	
537	A Comparative Study of the Catalytic Performance of Pt-Based Bi and Trimetallic Nanocatalysts Towards Methanol, Ethanol, Ethylene Glycol, and Glycerol Electro-Oxidation. <i>Journal of Nanoscience and Nanotechnology</i> , 2020 , 20, 6274-6285	1.3	1	
536	Quantitative measurement of charge accumulation along a quasi-one-dimensional WO nanowire during electron field emission. <i>Nanoscale</i> , 2020 , 12, 10559-10564	7.7	6	
535	Magnetic quantification of single-crystalline Fe and Co nanowires via off-axis electron holography. Journal of Chemical Physics, 2020 , 152, 114202	3.9	1	
534	Visualizing Magnetic Structure in 3D Nanoscale Ni-Fe Gyroid Networks. <i>Nano Letters</i> , 2020 , 20, 3642-365	50 1.5	8	
533	Energy Storage: An Unconventional Transient Phase with Cycloidal Order of Polarization in Energy-Storage Antiferroelectric PbZrO3 (Adv. Mater. 9/2020). <i>Advanced Materials</i> , 2020 , 32, 2070069	24	2	

MoRe/YBCO Josephson junctions and Eloops. Superconductor Science and Technology, 2020, 33, 044005 3.1 532 Energy-level quantization and single-photon control of phase slips in YBaCuO nanowires. Nature 531 10 17.4 Communications, 2020, 11, 763 Solute Incorporation at Oxide Dxide Interfaces Explains How Ternary Mixed-Metal Oxide Nanocrystals Support Element-Specific Anisotropic Growth. Advanced Functional Materials, 2020, 15.6 530 30, 1909054 An Unconventional Transient Phase with Cycloidal Order of Polarization in Energy-Storage 529 30 24 Antiferroelectric PbZrO. Advanced Materials, 2020, 32, e1907208 Linear-regioselective hydromethoxycarbonylation of styrene using Ru-clusters/CeO2 catalyst. 528 11.3 4 Chinese Journal of Catalysis, 2020, 41, 963-969 Room-Temperature Skyrmions at Zero Field in Exchange-Biased Ultrathin Films. Physical Review 13 4.3 Applied, **2020**, 13, 526 Generation of electron vortices using nonexact electric fields. Physical Review Research, 2020, 2, 11 3.9 Next-Generation Information Technology Systems for Fast Detectors in Electron Microscopy 2020, 83-120 525 4 LiberTEM: Software platform for scalable multidimensional data processing in transmission 524 5.2 10 electron microscopy. Journal of Open Source Software, 2020, 5, 2006 The grain-boundary resistance of CeO2 ceramics: A combined microscopy-spectroscopy-simulation 3.8 523 study of a dilute solution. Journal of the American Ceramic Society, 2020, 103, 1755-1764 Engineering stable electrocatalysts by synergistic stabilization between carbide cores and Pt shells. 68 522 27 Nature Materials, 2020, 19, 287-291 Observation of oxygen pyramid tilting induced polarization rotation in strained BiFeO3 thin film. 3.8 521 Journal of the American Ceramic Society, 2020, 103, 2828-2834 Structural perspective on revealing heat dissipation behavior of CoFeO-Pd nanohybrids: great 3.6 520 1 promise for magnetic fluid hyperthermia. Physical Chemistry Chemical Physics, 2020, 22, 26728-26741 Discovery of Real-Space Topological Ferroelectricity in Metallic Transition Metal Phosphides. 519 24 Advanced Materials, 2020, 32, e2003479 Size dependent oxygen reduction and methanol oxidation reactions: catalytic activities of PtCu 518 5.5 10 octahedral nanocrystals. Catalysis Science and Technology, 2020, 10, 5501-5512 Effect of annealing on the magnetic states of FEBID-grown cobalt nanopatterns examined by 517 1.9 off-axis electron holography. Journal of Microscopy, 2020, 279, 217-221 Interplay of intrinsic and extrinsic states in pinning and passivation of m-plane facets of GaN n-p-n 516 2.5 junctions. Journal of Applied Physics, 2020, 128, 185701 Strong size selectivity in the self-assembly of rounded nanocubes into 3D mesocrystals. Nanoscale 10.8 Horizons, 2020, 5, 1065-1072

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514	Robust nature of the chiral spin helix in CrNb3S6 nanostructures studied by off-axis electron holography. <i>Physical Review B</i> , 2020 , 102,	3.3	4	
513	Cobalt Hexacyanoferrate as a Selective and High Current Density Formate Oxidation Electrocatalyst. <i>ACS Applied Energy Materials</i> , 2020 , 3, 9198-9207	6.1	6	
512	Three-dimensional Charge Density and Electric Field Mapping of an Electrically Biased Needle Using Off-axis Electron Holography. <i>Microscopy and Microanalysis</i> , 2020 , 26, 1540-1542	0.5		
511	Unconventional magnetization textures and domain-wall pinning in Sm-Co magnets. <i>Scientific Reports</i> , 2020 , 10, 21209	4.9	9	
510	Dynamical diffraction effects in STEM orbital angular momentum resolved electron energy-loss magnetic chiral dichroism. <i>Physical Review B</i> , 2020 , 102,	3.3	3	
509	Design of electrostatic phase elements for sorting the orbital angular momentum of electrons. <i>Ultramicroscopy</i> , 2020 , 208, 112861	3.1	15	
508	Measurement of charge density in nanoscale materials using off-axis electron holography. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2020 , 241, 146881	1.7	5	
507	Self-Epitaxial Hetero-Nanolayers and Surface Atom Reconstruction in Electrocatalytic Nickel Phosphides. <i>ACS Applied Materials & Acs Acs Applied Materials & Acs Acs Applied Materials & Acs Acs Acs Acs Acs Acs Acs Acs Acs Acs</i>	9.5	4	
506	Room-temperature all-solid-state sodium batteries with robust ceramic interface between rigid electrolyte and electrode materials. <i>Nano Energy</i> , 2019 , 65, 104040	17.1	26	
505	Controlling Near-Surface Ni Composition in Octahedral PtNi(Mo) Nanoparticles by Mo Doping for a Highly Active Oxygen Reduction Reaction Catalyst. <i>Nano Letters</i> , 2019 , 19, 6876-6885	11.5	56	
504	Concave curvature facets benefit oxygen electroreduction catalysis on octahedral shaped PtNi nanocatalysts. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 1149-1159	13	28	
503	Formation of unexpectedly active Ni-Fe oxygen evolution electrocatalysts by physically mixing Ni and Fe oxyhydroxides. <i>Chemical Communications</i> , 2019 , 55, 818-821	5.8	39	
502	Loops With ds Josephson Junctions. <i>IEEE Transactions on Applied Superconductivity</i> , 2019 , 29, 1-5	1.8	3	
501	Mechanistic insight into the formation of colloidal WS2 nanoflakes in hot alkylamine media. <i>Nanoscale Advances</i> , 2019 , 1, 2772-2782	5.1	4	
500	Nanoscopic Porous Iridium/Iridium Dioxide Superstructures (15 nm): Synthesis and Thermal Conversion by In Situ Transmission Electron Microscopy. <i>Chemistry - A European Journal</i> , 2019 , 25, 110	48 ⁴ 1 ⁸ 105	57 ¹	
499	Single Electron Precision in the Measurement of Charge Distributions on Electrically Biased Graphene Nanotips Using Electron Holography. <i>Nano Letters</i> , 2019 , 19, 4091-4096	11.5	4	
498	Controlled Assembly of Block Copolymer Coated Nanoparticles in 2D Arrays. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 8541-8545	16.4	10	
497	Nanostructuring of electron beams. <i>Physica Scripta</i> , 2019 , 94, 034004	2.6	9	

496	Electron-Beam Shaping in the Transmission Electron Microscope: Control of Electron-Beam Propagation Along Atomic Columns. <i>Physical Review Applied</i> , 2019 , 11,	4.3	6
495	Dealloyed PtNi-CoreBhell Nanocatalysts Enable Significant Lowering of Pt Electrode Content in Direct Methanol Fuel Cells. <i>ACS Catalysis</i> , 2019 , 9, 3764-3772	13.1	42
494	Photodriven Dipole Reordering: Key to Carrier Separation in Metalorganic Halide Perovskites. <i>ACS Nano</i> , 2019 , 13, 4402-4409	16.7	26
493	Dislocation Evolution and Migration at Grain Boundaries in Thermoelectric SnTe. <i>ACS Applied Energy Materials</i> , 2019 , 2, 2392-2397	6.1	13
492	Nano-scale Si segregation and precipitation in Cr2Al(Si)C MAX phase coatings impeding grain growth during oxidation. <i>Materials Research Letters</i> , 2019 , 7, 180-187	7.4	3
491	Focused Electron-Beam Induced Deposition, In Situ TEM And Off-Axis Electron Holography Investigation of Bi-Magnetic Core-Shell Nanostructures. <i>Microscopy and Microanalysis</i> , 2019 , 25, 56-57	0.5	
490	Model-Based Iterative Reconstruction of Charge Density in Nanoscale Materials using Off-Axis Electron Holography. <i>Microscopy and Microanalysis</i> , 2019 , 25, 48-49	0.5	
489	Three-dimensional electric field mapping of an electrically biased atom probe needle using off-axis electron holography. <i>Microscopy and Microanalysis</i> , 2019 , 25, 326-327	0.5	5
488	Reconstruction of Projected and 3D Magnetization Distributions from Electron-Optical Phase Images using an Iterative Model-Based Algorithm. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1806-1807	0.5	
487	Understanding the Formation Mechanism of Magnetic Mesocrystals with (Cryo-)Electron Microscopy. <i>Chemistry of Materials</i> , 2019 , 31, 7320-7328	9.6	10
486	Temperature-Induced Structural Reorganization of W-Doped Ba0.5Sr0.5Co0.8Fe0.2O3 Composite Membranes for Air Separation. <i>Chemistry of Materials</i> , 2019 , 31, 7487-7492	9.6	12
485	The Young-Feynman controlled double-slit electron interference experiment. <i>Scientific Reports</i> , 2019 , 9, 10458	4.9	9
484	Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification. <i>Advanced Energy Materials</i> , 2019 , 9, 1901836	21.8	32
483	Etching-Assisted Route to Heterophase Au Nanowires with Multiple Types of Active Surface Sites for Silane Oxidation. <i>Nano Letters</i> , 2019 , 19, 6363-6369	11.5	11
482	In-plane Aligned Colloidal 2D WS Nanoflakes for Solution-Processable Thin Films with High Planar Conductivity. <i>Scientific Reports</i> , 2019 , 9, 9002	4.9	12
481	The impact of crystal size and temperature on the adsorption-induced flexibility of the Zr-based metal-organic framework DUT-98. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 1737-1744	3	18
480	Electron Ptychography of Single Biological Macromolecules. <i>Microscopy and Microanalysis</i> , 2019 , 25, 72-	- 73 .5	2
479	Photoelectrochemical Water Splitting: Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification (Adv. Energy Mater. 34/2019). <i>Advanced Energy Materials</i> , 2019 , 9, 1970131	21.8	

478	Electron Holography. Springer Handbooks, 2019 , 767-818	1.3	8	
477	Direct measurement of electrostatic potentials at the atomic scale: A conceptual comparison between electron holography and scanning transmission electron microscopy. <i>Ultramicroscopy</i> , 2019 , 210, 112926	3.1	5	
476	Manipulation of dipolar magnetism in low-dimensional iron oxide nanoparticle assemblies. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 6171-6177	3.6	7	
475	Nanoscale measurement of giant saturation magnetization in AFeN by electron energy-loss magnetic chiral dichroism. <i>Ultramicroscopy</i> , 2019 , 203, 37-43	3.1	4	
474	Quantitative measurement of nanoscale electrostatic potentials and charges using off-axis electron holography: Developments and opportunities. <i>Ultramicroscopy</i> , 2019 , 203, 105-118	3.1	12	
473	Iuliacumite: A Novel Chemical Short-Range Order in a Two-Dimensional Wurtzite Single Monolayer InAsSb Shell on InAs Nanowires. <i>Nano Letters</i> , 2019 , 19, 8801-8805	11.5	1	
472	Composition-Tuned Pt-Skinned PtNi Bimetallic Clusters as Highly Efficient Methanol Dehydrogenation Catalysts. <i>Chemistry of Materials</i> , 2019 , 31, 10040-10048	9.6	16	
471	Orbital angular momentum resolved electron magnetic chiral dichroism. <i>Physical Review B</i> , 2019 , 100,	3.3	7	
470	Composition modulation by twinning in InAsSb nanowires. <i>Nanotechnology</i> , 2019 , 30, 324005	3.4	4	
469	Resolution and aberration correction in liquid cell transmission electron microscopy. <i>Nature Reviews Materials</i> , 2019 , 4, 61-78	73.3	83	
468	Characterization of grain boundary disconnections in SrTiO3 part I: the dislocation component of grain boundary disconnections. <i>Journal of Materials Science</i> , 2019 , 54, 3694-3709	4.3	10	
467	Structural characterization of bulk and nanoparticle lead halide perovskite thin films by (S)TEM techniques. <i>Nanotechnology</i> , 2019 , 30, 135701	3.4	5	
466	Morphological, Structural, and Compositional Evolution of PtNi Octahedral Electrocatalysts with Pt-Rich Edges and Ni-Rich Core: Toward the Rational Design of Electrocatalysts for the Oxygen Reduction Reaction. <i>Particle and Particle Systems Characterization</i> , 2019 , 36, 1800442	3.1	9	
465	Acid-Promoter-Free Ethylene Methoxycarbonylation over Ru-Clusters/Ceria: The Catalysis of Interfacial Lewis Acid-Base Pair. <i>Journal of the American Chemical Society</i> , 2018 , 140, 4172-4181	16.4	94	
464	Bifunctional Electrocatalysis on Pd-Ni CoreBhell Nanoparticles for Hydrogen Oxidation Reaction in Alkaline Medium. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1701666	4.6	31	
463	Quantification of Magnetic Surface and Edge States in an FeGe Nanostripe by Off-Axis Electron Holography. <i>Physical Review Letters</i> , 2018 , 120, 167204	7.4	21	
462	Understanding electron magnetic circular dichroism in a transition potential approach. <i>Physical Review B</i> , 2018 , 97,	3.3	2	
461	The oldest magnetic record in our solar system identified using nanometric imaging and numerical modeling. <i>Nature Communications</i> , 2018 , 9, 1173	17.4	17	

460	Experimental observation of chiral magnetic bobbers in B20-type FeGe. <i>Nature Nanotechnology</i> , 2018 , 13, 451-455	28.7	150
459	Absolute Scale Quantitative Off-Axis Electron Holography at Atomic Resolution. <i>Physical Review Letters</i> , 2018 , 120, 156101	7.4	15
458	Flip-Chip High-Tc DC SQUID Magnetometer With a Ferromagnetic Flux Antenna. <i>IEEE Transactions on Applied Superconductivity</i> , 2018 , 28, 1-5	1.8	2
457	Atomic scale imaging of magnetic circular dichroism by achromatic electron microscopy. <i>Nature Materials</i> , 2018 , 17, 221-225	27	42
456	Atomically Resolved Electronic States and Correlated Magnetic Order at Termination Engineered Complex Oxide Heterointerfaces. <i>ACS Nano</i> , 2018 , 12, 1089-1095	16.7	8
455	Differentiating the structure of PtNi octahedral nanoparticles through combined ADF-EDX simulations. <i>Advanced Structural and Chemical Imaging</i> , 2018 , 4, 2	3.9	8
454	Tunable Ampere phase plate for low dose imaging of biomolecular complexes. <i>Scientific Reports</i> , 2018 , 8, 5592	4.9	10
453	Spherical aberration correction in a scanning transmission electron microscope using a sculpted thin film. <i>Ultramicroscopy</i> , 2018 , 189, 46-53	3.1	17
452	Electron affinity and surface states of GaN m-plane facets: Implication for electronic self-passivation. <i>Physical Review B</i> , 2018 , 97,	3.3	9
451	Unravelling Degradation Pathways of Oxide-Supported Pt Fuel Cell Nanocatalysts under In Situ Operating Conditions. <i>Advanced Energy Materials</i> , 2018 , 8, 1701663	21.8	46
450	Structural and chemical characterization of CdSe-ZnS core-shell quantum dots. <i>Applied Surface Science</i> , 2018 , 457, 93-97	6.7	15
449	Flexible polarization rotation at the ferroelectric/metal interface as a seed for domain nucleation. <i>Physical Review B</i> , 2018 , 98,	3.3	11
448	Experimental evidence for hotspot and phase-slip mechanisms of voltage switching in ultrathin YBa2Cu3O7 nanowires. <i>Physical Review B</i> , 2018 , 98,	3.3	11
447	Fabrication and characterization of a focused ion beam milled lanthanum hexaboride based cold field electron emitter source. <i>Applied Physics Letters</i> , 2018 , 113, 093101	3.4	10
446	Visualized Effects of Oxidation and Temperature on Vortex-State Fe3O4 Particles Examined by Environmental TEM and Off-Axis Electron Holography. <i>Microscopy and Microanalysis</i> , 2018 , 24, 950-951	0.5	
445	Atomic Resolution Imaging of Dislocations in AlGaN and the Efficiency of UV LEDs. <i>Microscopy and Microanalysis</i> , 2018 , 24, 4-5	0.5	
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34 ² 34 ¹ 34 ⁰	Distribution, Oxygen Reduction Reaction, and Shape Stability. <i>Nano Letters</i> , 2016 , 16, 1719-25 Tubular structures from the LnSITaS2 (Ln = La, Ce, Nd, Ho, Er) and LaSeITaSe2 misfit layered compounds. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 89-98 High-\$rm{T}_{rm{c}}\$ Dual-SQUIDs With Graphoepitaxial Step-Edge Junctions. <i>IEEE Transactions on Applied Superconductivity</i> , 2016 , 26, 1-4 Measurement of Atomic Electric Fields by Scanning Transmission Electron Microscopy (STEM) Employing Ultrafast Detectors. <i>Microscopy and Microanalysis</i> , 2016 , 22, 484-485	7.1	19
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