David A Muller

List of Publications by Year
in descending order

502 papers	53,379 citations	1459 107 h-index	1385 222 g-index
515 all docs	515 docs citations	515 times ranked	46810 citing authors

#	Article	IF	Citations
1	Superconducting Interfaces Between Insulating Oxides. Science, 2007, 317, 1196-1199.	6.0	2,374
2	One-Dimensional Electrical Contact to a Two-Dimensional Material. Science, 2013, 342, 614-617.	6.0	2,236
3	Grains and grain boundaries in highly crystalline monolayer molybdenum disulphide. Nature Materials, 2013, 12, 554-561.	13.3	1,896
4	Grains and grain boundaries in single-layer graphene atomic patchwork quilts. Nature, 2011, 469, 389-392.	13.7	1,790
5	Structurally ordered intermetallic platinumâ€“cobalt coreâ€“shell nanoparticles with enhanced activity and stability as oxygen reduction electrocatalysts. Nature Materials, 2013, 12, 81-87.	13.3	1,768
6	High-mobility three-atom-thick semiconducting films with wafer-scale homogeneity. Nature, 2015, 520, 656-660.	13.7	1,562
7	Janus monolayers of transition metal dichalcogenides. Nature Nanotechnology, 2017, 12, 744-749.	15.6	1,459
8	Why some interfaces cannot be sharp. Nature Materials, 2006, 5, 204-209.	13.3	1,374
9	Multi-terminal transport measurements of MoS2 using a van der Waals heterostructure device platform. Nature Nanotechnology, 2015, 10, 534-540.	15.6	1,099
10	Artificial charge-modulationin atomic-scale perovskite titanate superlattices. Nature, 2002, 419, 378-380.	13.7	932
11	Compressive-stress-induced formation of thin-film tetrahedral amorphous carbon. Physical Review Letters, 1991, 67, 773-776.	2.9	919
12	The electronic structure at the atomic scale of ultrathin gate oxides. Nature, 1999, 399, 758-761.	13.7	906
13	Graphene and boron nitride lateral heterostructures for atomically thin circuitry. Nature, 2012, 488, 627-632.	13.7	747
14	Graphene kirigami. Nature, 2015, 524, 204-207.	13.7	703
15	A strong ferroelectric ferromagnet created by means of spinâ€“lattice coupling. Nature, 2010, 466, 954-958.	13.7	668
16	Atomic-scale imaging of nanoengineered oxygen vacancy profiles in SrTiO3. Nature, 2004, 430, 657-661.	13.7	585
17	Atomic-Scale Chemical Imaging of Composition and Bonding by Aberration-Corrected Microscopy. Science, 2008, 319, 1073-1076.	6.0	566
18	Tailoring Electrical Transport Across Grain Boundaries in Polycrystalline Graphene. Science, 2012, 336, 1143-1146.	6.0	535

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19	Direct Fabrication of Large Micropatterned Single Crystals. Science, 2003, 299, 1205-1208.	6.0	518
20	High-temperature interface superconductivity between metallic and insulating copper oxides. Nature, 2008, 455, 782-785.	13.7	456
21	Layer-by-layer assembly of two-dimensional materials into wafer-scale heterostructures. Nature, 2017, 550, 229-233.	13.7	442
22	Electron ptychography of 2D materials to deep sub-Ã¥ngstrÃ¶m resolution. Nature, 2018, 559, 343-349.	13.7	431
23	Observation of room-temperature polar skyrmions. Nature, 2019, 568, 368-372.	13.7	417
24	Atomic-scale imaging of individual dopant atoms and clusters in highly n-type bulk Si. Nature, 2002, 416, 826-829.	13.7	413
25	Strain solitons and topological defects in bilayer graphene. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11256-11260.	3.3	407
26	Crossover from incoherent to coherent phonon scattering in epitaxial oxide superlattices. Nature Materials, 2014, 13, 168-172.	13.3	399
27	Rapid electron transfer by the carbon matrix in natural pyrogenic carbon. Nature Communications, 2017, 8, 14873.	5.8	385
28	Elastic strain engineering of ferroic oxides. MRS Bulletin, 2014, 39, 118-130.	1.7	379
29	Free-standing nanoparticle superlattice sheets controlled by DNA. Nature Materials, 2009, 8, 519-525.	13.3	372
30	Structure and bonding at the atomic scale by scanning transmission electron microscopy. Nature Materials, 2009, 8, 263-270.	13.3	368
31	Chemical Vapor Deposition-Derived Graphene with Electrical Performance of Exfoliated Graphene. Nano Letters, 2012, 12, 2751-2756.	4.5	365
32	A Ferroelectric Oxide Made Directly on Silicon. Science, 2009, 324, 367-370.	6.0	347
33	High Dynamic Range Pixel Array Detector for Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2016, 22, 237-249.	0.2	334
34	Intrinsic Two-Dimensional Ferroelectricity with Dipole Locking. Physical Review Letters, 2018, 120, 227601.	2.9	322
35	Esaki Diodes in van der Waals Heterojunctions with Broken-Gap Energy Band Alignment. Nano Letters, 2015, 15, 5791-5798.	4.5	319
36	Softened Elastic Response and Unzipping in Chemical Vapor Deposition Graphene Membranes. Nano Letters, 2011, 11, 2259-2263.	4.5	316

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37	HfO2 and Al2O3 gate dielectrics on GaAs grown by atomic layer deposition. Applied Physics Letters, 2005, 86, 152904.	1.5	300
38	Pt-Decorated PdCo@Pd/C Coreâ˜Shell Nanoparticles with Enhanced Stability and Electrocatalytic Activity for the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2010, 132, 17664-17666.	6.6	300
39	Tuning Oxygen Reduction Reaction Activity via Controllable Dealloying: A Model Study of Ordered Cu₃Pt/C Intermetallic Nanocatalysts. Nano Letters, 2012, 12, 5230-5238.	4.5	291
40	Tailoring the Electronic Structure in Bilayer Molybdenum Disulfide via Interlayer Twist. Nano Letters, 2014, 14, 3869-3875.	4.5	278
41	Atomically engineered ferroic layers yield a room-temperature magnetoelectric multiferroic. Nature, 2016, 537, 523-527.	13.7	275
42	Nucleation and growth of atomic layer deposited HfO2 gate dielectric layers on chemical oxide (Siâ€“Oâ€“H) and thermal oxide (SiO2 or Siâ€“Oâ€“N) underlayers. Journal of Applied Physics, 2002, 92, 7168-7174.	1.1	268
43	Visualizing the 3D Internal Structure of Calcite Single Crystals Grown in Agarose Hydrogels. Science, 2009, 326, 1244-1247.	6.0	257
44	Hierarchical Porous Polymer Scaffolds from Block Copolymers. Science, 2013, 341, 530-534.	6.0	257
45	Large-scale chemical assembly of atomically thin transistors and circuits. Nature Nanotechnology, 2016, 11, 954-959.	15.6	251
46	Properties of high Îº gate dielectrics Gd2O3 and Y2O3 for Si. Journal of Applied Physics, 2001, 89, 3920-3927.	1.1	250
47	Epitaxial integration of the highly spin-polarized ferromagnetic semiconductor EuO with silicon and GaN. Nature Materials, 2007, 6, 882-887.	13.3	247
48	Coherent, atomically thin transition-metal dichalcogenide superlattices with engineered strain. Science, 2018, 359, 1131-1136.	6.0	247
49	Delocalization in inelastic scattering. Ultramicroscopy, 1995, 59, 195-213.	0.8	245
50	Spatially resolved steady-state negative capacitance. Nature, 2019, 565, 468-471.	13.7	245
51	Properties of tetrahedral amorphous carbon prepared by vacuum arc deposition. Diamond and Related Materials, 1991, 1, 51-59.	1.8	241
52	Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of Battery Electrode and Electrolyte. Nano Letters, 2014, 14, 1453-1459.	4.5	238
53	Direct Imaging of a Two-Dimensional Silica Glass on Graphene. Nano Letters, 2012, 12, 1081-1086.	4.5	236
54	Mapping sp2 and sp3 states of carbon at sub-nanometre spatial resolution. Nature, 1993, 366, 725-727.	13.7	235

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55	The structure of the C70 molecule. Nature, 1992, 355, 622-624.	13.7	225
56	Twinning and Twisting of Tri- and Bilayer Graphene. Nano Letters, 2012, 12, 1609-1615.	4.5	224
57	Predicting LVOTÂObstruction in Transcatheter Mitral ValveÂImplantation. JACC: Cardiovascular Imaging, 2017, 10, 482-485.	2.3	213
58	Synergistic Mn-Co catalyst outperforms Pt on high-rate oxygen reduction for alkaline polymer electrolyte fuel cells. Nature Communications, 2019, 10, 1506.	5.8	212
59	Imaging individual atoms inside crystals with ADF-STEM. Ultramicroscopy, 2003, 96, 251-273.	0.8	209
60	Interface superconductor with gap behaviour like a high-temperature superconductor. Nature, 2013, 502, 528-531.	13.7	209
61	Imaging Atomic Rearrangements in Two-Dimensional Silica Glass: Watching Silicaâ€™s Dance. Science, 2013, 342, 224-227.	6.0	209
62	Strain distributions and their influence on electronic structures of WSe2â€“MoS2 laterally strained heterojunctions. Nature Nanotechnology, 2018, 13, 152-158.	15.6	206
63	Exploiting dimensionality and defect mitigation to create tunable microwave dielectrics. Nature, 2013, 502, 532-536.	13.7	204
64	Mechanism of Gold-Assisted Exfoliation of Centimeter-Sized Transition-Metal Dichalcogenide Monolayers. ACS Nano, 2018, 12, 10463-10472.	7.3	203
65	Atomically Thin Ohmic Edge Contacts Between Two-Dimensional Materials. ACS Nano, 2016, 10, 6392-6399.	7.3	202
66	Surfactant Ligand Removal and Rational Fabrication of Inorganically Connected Quantum Dots. Nano Letters, 2011, 11, 5356-5361.	4.5	199
67	Growth of homoepitaxial SrTiO3 thin films by molecular-beam epitaxy. Applied Physics Letters, 2009, 94, .	1.5	198
68	LaAlO3 stoichiometry is key to electron liquid formation at LaAlO3/SrTiO3 interfaces. Nature Communications, 2013, 4, 2351.	5.8	198
69	Electrocatalysis in Alkaline Media and Alkaline Membrane-Based Energy Technologies. Chemical Reviews, 2022, 122, 6117-6321.	23.0	195
70	Negatively curved graphitic sheet model of amorphous carbon. Physical Review Letters, 1992, 69, 921-924.	2.9	194
71	Electronically integrated, mass-manufactured, microscopic robots. Nature, 2020, 584, 557-561.	13.7	192
72	Connections between the electron-energy-loss spectra, the local electronic structure, and the physical properties of a material: A study of nickel aluminum alloys. Physical Review B, 1998, 57, 8181-8202.	1.1	185

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73	Effect of biaxial strain on the electrical and magnetic properties of (001) La0.7Sr0.3MnO3 thin films. Applied Physics Letters, 2009, 95, .	1.5	184
74	A strong ferroelectric ferromagnet created by means of spinâ€“lattice coupling. Nature, 2011, 476, 114-114.	13.7	183
75	Wafer-scale synthesis of monolayer two-dimensional porphyrin polymers for hybrid superlattices. Science, 2019, 366, 1379-1384.	6.0	178
76	Initial Feasibility Study of a NewÂTranscatheter Mitral Prosthesis. Journal of the American College of Cardiology, 2019, 73, 1250-1260.	1.2	172
77	Achieving High-Power PEM Fuel Cell Performance with an Ultralow-Pt-Content Coreâ€“Shell Catalyst. ACS Catalysis, 2016, 6, 1578-1583.	5.5	170
78	Pt-Rich_{core}/Sn-Rich_{subsurface}/Pt_{skin} Nanocubes As Highly Active and Stable Electrocatalysts for the Ethanol Oxidation Reaction. Journal of the American Chemical Society, 2018, 140, 3791-3797.	6.6	166
79	Multifunctional nanoarchitectures from DNA-based ABC monomers. Nature Nanotechnology, 2009, 4, 430-436.	15.6	164
80	Facile Synthesis of Carbon-Supported Pdâ€“Co Coreâ€“Shell Nanoparticles as Oxygen Reduction Electrocatalysts and Their Enhanced Activity and Stability with Monolayer Pt Decoration. Chemistry of Materials, 2012, 24, 2274-2281.	3.2	163
81	Three-Dimensional Tracking and Visualization of Hundreds of Ptâ^'Co Fuel Cell Nanocatalysts During Electrochemical Aging. Nano Letters, 2012, 12, 4417-4423.	4.5	162
82	Atomic-Resolution Spectroscopic Imaging of Ensembles of Nanocatalyst Particles Across the Life of a Fuel Cell. Nano Letters, 2012, 12, 490-497.	4.5	161
83	Morphology and crystallization kinetics in HfO2 thin films grown by atomic layer deposition. Journal of Applied Physics, 2003, 93, 1477-1481.	1.1	157
84	Electron ptychography achieves atomic-resolution limits set by lattice vibrations. Science, 2021, 372, 826-831.	6.0	154
85	Multicompartment Mesoporous Silica Nanoparticles with Branched Shapes: An Epitaxial Growth Mechanism. Science, 2013, 340, 337-341.	6.0	151
86	Solidâ€“Solid Phase Transformations Induced through Cation Exchange and Strain in 2D Heterostructured Copper Sulfide Nanocrystals. Nano Letters, 2014, 14, 7090-7099.	4.5	147
87	Real-time imaging of activation and degradation of carbon supported octahedral Ptâ€“Ni alloy fuel cell catalysts at the nanoscale using in situ electrochemical liquid cell STEM. Energy and Environmental Science, 2019, 12, 2476-2485.	15.6	146
88	Tuning the Electrocatalytic Oxygen Reduction Reaction Activity and Stability of Shape-Controlled Ptâ€“Ni Nanoparticles by Thermal Annealing â^' Elucidating the Surface Atomic Structural and Compositional Changes. Journal of the American Chemical Society, 2017, 139, 16536-16547.	6.6	144
89	Graphene-based bimorphs for micron-sized, autonomous origami machines. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 466-470.	3.3	144
90	Stacking Order Dependent Second Harmonic Generation and Topological Defects in h-BN Bilayers. Nano Letters, 2013, 13, 5660-5665.	4.5	141

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91	In Situ Electron Energy-Loss Spectroscopy in Liquids. Microscopy and Microanalysis, 2013, 19, 1027-1035.	0.2	140
92	Microscopic origins for stabilizing room-temperature ferromagnetism in ultrathin manganite layers. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11682-11685.	3.3	135
93	Study of strain fields at a-Si/c-Si interface. Journal of Applied Physics, 2004, 95, 3362-3371.	1.1	134
94	Morphology and Activity Tuning of Cu₃Pt/C Ordered Intermetallic Nanoparticles by Selective Electrochemical Dealloying. Nano Letters, 2015, 15, 1343-1348.	4.5	131
95	Operando Methods in Electrocatalysis. ACS Catalysis, 2021, 11, 1136-1178.	5.5	131
96	Adsorption-controlled growth of La-doped BaSnO3 by molecular-beam epitaxy. APL Materials, 2017, 5, .	2.2	131
97	Fluctuation microscopy in the STEM. Ultramicroscopy, 2002, 93, 147-159.	0.8	130
98	Functional electronic inversion layers at ferroelectric domain walls. Nature Materials, 2017, 16, 622-627.	13.3	127
99	Extremely anisotropic van der Waals thermal conductors. Nature, 2021, 597, 660-665.	13.7	127
100	Mitigation of PEM Fuel Cell Catalyst Degradation with Porous Carbon Supports. Journal of the Electrochemical Society, 2019, 166, F198-F207.	1.3	126
101	Simulation of thermal diffuse scattering including a detailed phonon dispersion curve. Ultramicroscopy, 2001, 86, 371-380.	0.8	118
102	Highly conductive and chemically stable alkaline anion exchange membranes via ROMP of trans -cyclooctene derivatives. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9729-9734.	3.3	118
103	A Surfactant-Free Strategy for Synthesizing and Processing Intermetallic Platinum-Based Nanoparticle Catalysts. Journal of the American Chemical Society, 2012, 134, 18453-18459.	6.6	116
104	GaN/NbN epitaxial semiconductor/superconductor heterostructures. Nature, 2018, 555, 183-189.	13.7	116
105	Epitaxial growth and electronic structure of LaTiOx films. Applied Physics Letters, 2002, 80, 3922-3924.	1.5	115
106	Coexisting ferromagneticâ€“antiferromagnetic state in twisted bilayer CrI3. Nature Nanotechnology, 2022, 17, 143-147.	15.6	115
107	Atomic Scale Observations of Metal-Induced Gap States at{222}MgO/Cu Interfaces. Physical Review Letters, 1998, 80, 4741-4744.	2.9	114
108	Characterization of Carbon Corrosion-Induced Structural Damage of PEM Fuel Cell Cathode Electrodes Caused by Local Fuel Starvation. Journal of the Electrochemical Society, 2008, 155, B979.	1.3	112

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109	Electronic Properties of theSi/SiO2Interface from First Principles. Physical Review Letters, 2000, 85, 1298-1301.	2.9	111
110	Correlation of annealing effects on local electronic structure and macroscopic electrical properties for HfO2 deposited by atomic layer deposition. Applied Physics Letters, 2003, 83, 3984-3986.	1.5	111
111	Block Copolymer Self-Assemblyâ€“Directed Single-Crystal Homo- and Heteroepitaxial Nanostructures. Science, 2010, 330, 214-219.	6.0	108
112	A polarization-induced 2D hole gas in undoped gallium nitride quantum wells. Science, 2019, 365, 1454-1457.	6.0	106
113	Enhancement of the anti-damping spin torque efficacy of platinum by interface modification. Applied Physics Letters, 2015, 106, .	1.5	105
114	Calcite Prisms from Mollusk Shells (Atrina Rigida): Swissâ€cheeseâ€like Organicâ€“Inorganic Singleâ€crystal Composites. Advanced Functional Materials, 2011, 21, 2028-2034.	7.8	104
115	Editors' Choiceâ€”Connecting Fuel Cell Catalyst Nanostructure and Accessibility Using Quantitative Cryo-STEM Tomography. Journal of the Electrochemical Society, 2018, 165, F173-F180.	1.3	104
116	Data Processing for Atomic Resolution Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2012, 18, 667-675.	0.2	103
117	Star-Shaped Azo-Based Dipolar Chromophores:Â Design, Synthesis, Matrix Compatibility, and Electro-optic Activity. Journal of the American Chemical Society, 2004, 126, 1741-1747.	6.6	102
118	Three-dimensional imaging of nonspherical silicon nanoparticles embedded in silicon oxide by plasmon tomography. Applied Physics Letters, 2006, 89, 151920.	1.5	102
119	Defining Crystalline/Amorphous Phases of Nanoparticles through X-ray Absorption Spectroscopy and X-ray Diffraction: The Case of Nickel Phosphide. Chemistry of Materials, 2013, 25, 2394-2403.	3.2	101
120	Tuning Electrical Conductance of MoS₂ Monolayers through Substitutional Doping. Nano Letters, 2020, 20, 4095-4101.	4.5	100
121	Design Principles for Optimum Performance of Porous Carbons in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2016, 6, 1600134.	10.2	98
122	Revealing the atomic ordering of binary intermetallics using in situ heating techniques at multilength scales. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1974-1983.	3.3	98
123	Direct observation of defect-mediated cluster nucleation. Nature Materials, 2002, 1, 102-105.	13.3	97
124	Sub-nanometre channels embedded in two-dimensional materials. Nature Materials, 2018, 17, 129-133.	13.3	97
125	First Principles Simulation of a Ceramic/Metal Interface with Misfit. Physical Review Letters, 2000, 84, 3362-3365.	2.9	95
126	Simultaneous Quantification of Electron Transfer by Carbon Matrices and Functional Groups in Pyrogenic Carbon. Environmental Science & Technology, 2018, 52, 8538-8547.	4.6	95

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127	Organoâ€“organic and organoâ€“mineral interfaces in soil at the nanometer scale. Nature Communications, 2020, 11, 6103.	5.8	95
128	Quantum many-body interactions in digital oxide superlattices. Nature Materials, 2012, 11, 855-859.	13.3	92
129	Magnetic Structure and Ordering of Multiferroic Hexagonal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>LuFeO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub> Physical Review Letters, 2015, 114, 217602.	2.9	92
130	Atomically precise interfaces from non-stoichiometric deposition. Nature Communications, 2014, 5, 4530.	5.8	91
131	Comparison between Dealloyed PtCo₃ and PtCu₃ Cathode Catalysts for Proton Exchange Membrane Fuel Cells. Journal of Physical Chemistry C, 2012, 116, 19877-19885.	1.5	90
132	Nature of the Metal Insulator Transition in Ultrathin Epitaxial Vanadium Dioxide. Nano Letters, 2013, 13, 4857-4861.	4.5	90
133	Transport properties of ultra-thin VO2 films on (001) TiO2 grown by reactive molecular-beam epitaxy. Applied Physics Letters, 2015, 107, .	1.5	88
134	Three-dimensional imaging of nanovoids in copper interconnects using incoherent bright field tomography. Applied Physics Letters, 2006, 88, 243116.	1.5	87
135	Interfacial Dzyaloshinskii-Moriya interaction arising from rare-earth orbital magnetism in insulating magnetic oxides. Nature Communications, 2020, 11, 1090.	5.8	86
136	Local negative permittivity and topological phase transition in polar skyrmions. Nature Materials, 2021, 20, 194-201.	13.3	86
137	Electron optical characterization of cubic boron nitride thin films prepared by reactive ion plating. Journal of Applied Physics, 1991, 70, 3007-3012.	1.1	85
138	Chemical Vapor Deposition Growth of Large Single-Crystal Mono-, Bi-, Tri-Layer Hexagonal Boron Nitride and Their Interlayer Stacking. ACS Nano, 2017, 11, 12057-12066.	7.3	85
139	Synthetic Lateral Metal-Semiconductor Heterostructures of Transition Metal Disulfides. Journal of the American Chemical Society, 2018, 140, 12354-12358.	6.6	85
140	Strain Mapping of Two-Dimensional Heterostructures with Subpicometer Precision. Nano Letters, 2018, 18, 3746-3751.	4.5	82
141	Sulfur encapsulation by MOF-derived CoS₂ embedded in carbon hosts for high-performance Liâ€“S batteries. Journal of Materials Chemistry A, 2019, 7, 21128-21139.	5.2	79
142	Aberration-corrected ADF-STEM depth sectioning and prospects for reliable 3D imaging in S/TEM. Journal of Electron Microscopy, 2009, 58, 157-165.	0.9	77
143	Electrical half-wave rectification at ferroelectric domain walls. Nature Nanotechnology, 2018, 13, 1028-1034.	15.6	77
144	Depth-Dependent Imaging of Individual Dopant Atoms in Silicon. Microscopy and Microanalysis, 2004, 10, 291-300.	0.2	76

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145	Lattice-polarization effects on electron-gas charge densities in ionic superlattices. Physical Review B, 2006, 73, .	1.1	76
146	Materials Characterization of Alternative Gate Dielectrics. MRS Bulletin, 2002, 27, 206-211.	1.7	74
147	Visualizing the interfacial evolution from charge compensation to metallic screening across the manganite metalâ€“insulator transition. Nature Communications, 2014, 5, 3464.	5.8	73
148	Systematic Optimization of Battery Materials: Key Parameter Optimization for the Scalable Synthesis of Uniform, High-Energy, and High Stability LiNi_{0.6}Mn_{0.2}Co_{0.2}O₂ Cathode Material for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 35811-35819.	4.0	73
149	Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Ptâ€“Fe Nanoparticles in a KCl Matrix. Chemistry of Materials, 2013, 25, 1436-1442.	3.2	72
150	Near Atomic Scale Studies of Electronic Structure at Grain Boundaries in Ni3Al. Physical Review Letters, 1995, 75, 4744-4747.	2.9	71
151	Structure, chemistry and bonding at grain boundaries in Ni3Alâ€”I. The role of boron in ductilizing grain boundaries. Acta Materialia, 1996, 44, 1637-1645.	3.8	71
152	Room design for high-performance electron microscopy. Ultramicroscopy, 2006, 106, 1033-1040.	0.8	71
153	DNAsomes: Multifunctional DNAâ€Based Nanocarriers. Small, 2011, 7, 74-78.	5.2	71
154	Graphene-assisted spontaneous relaxation towards dislocation-free heteroepitaxy. Nature Nanotechnology, 2020, 15, 272-276.	15.6	71
155	Crystal orientation dictated epitaxy of ultrawide-bandgap 5.4- to 8.6-eV Î±-(AlGa) ₂ O ₃ on m-plane sapphire. Science Advances, 2021, 7, .	4.7	71
156	Multicomponent Nanomaterials with Complex Networked Architectures from Orthogonal Degradation and Binary Metal Backfilling in ABC Triblock Terpolymers. Journal of the American Chemical Society, 2015, 137, 6026-6033.	6.6	70
157	Atomic scale measurements of the interfacial electronic structure and chemistry of zirconium silicate gate dielectrics. Applied Physics Letters, 2001, 79, 4195-4197.	1.5	69
158	Nanoscale assembly processes revealed in the nacroprismatic transition zone of Pinna nobilis mollusc shells. Nature Communications, 2015, 6, 10097.	5.8	69
159	Optical band gap and magnetic properties of unstrained EuTiO3 films. Applied Physics Letters, 2009, 94, .	1.5	68
160	Visualizing short-range charge transfer at the interfaces between ferromagnetic and superconducting oxides. Nature Communications, 2013, 4, 2336.	5.8	68
161	Synthesis, structure and applications of amorphous diamond. Thin Solid Films, 1991, 206, 198-203.	0.8	67
162	Advances in high Îº gate dielectrics for Si and IIIâ€“V semiconductors. Journal of Crystal Growth, 2003, 251, 645-650.	0.7	67

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163	Subtleties in ADF imaging and spatially resolved EELS: A case study of low-angle twist boundaries in SrTiO3. Ultramicroscopy, 2006, 106, 1053-1061.	0.8	67
164	Spontaneous incorporation of gold in palladium-based ternary nanoparticles makes durable electrocatalysts for oxygen reduction reaction. Nature Communications, 2016, 7, 11941.	5.8	67
165	Adsorption-controlled growth of BiVO4 by molecular-beam epitaxy. APL Materials, 2013, 1, .	2.2	65
166	Infiltrating sulfur in hierarchical architecture MWCNT@meso C coreâ€"shell nanocomposites for lithiumâ€"sulfur batteries. Physical Chemistry Chemical Physics, 2013, 15, 9051.	1.3	65
167	Enhanced ORR Kinetics on Au-Doped Ptâ€"Cu Porous Films in Alkaline Media. ACS Catalysis, 2020, 10, 9967-9976.	5.5	65
168	Effect of oxygen stoichiometry on the electrical properties of zirconia gate dielectrics. Applied Physics Letters, 2001, 79, 3311-3313.	1.5	64
169	Tilted spin current generated by the collinear antiferromagnet ruthenium dioxide. Nature Electronics, 2022, 5, 267-274.	13.1	64
170	Intrinsic magnetic properties of hexagonal LuFeO₃ and the effects of nonstoichiometry. APL Materials, 2014, 2, 012106.	2.2	63
171	Electron Accumulation and Emergent Magnetism in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>LaMnO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub Heterostructures. Physical Review Letters, 2017, 119, 156801.	2.9	63
172	Mixed-state electron ptychography enables sub-angstrom resolution imaging with picometer precision at low dose. Nature Communications, 2020, 11, 2994.	5.8	63
173	Analytic derivation of optimal imaging conditions for incoherent imaging in aberration-corrected electron microscopes. Ultramicroscopy, 2008, 108, 1454-1466.	0.8	62
174	Stability of the M2 phase of vanadium dioxide induced by coherent epitaxial strain. Physical Review B, 2016, 94, .	1.1	62
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