Stephen J Pennycook

List of Publications by Year
in descending order

815	57,150	616 124	2033 205
papers	citations	h-index	g-index

873	873	873	44936
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An oxygen reduction electrocatalyst based on carbon nanotubeâ€“graphene complexes. Nature Nanotechnology, 2012, 7, 394-400.	31.5	1,533
2	Nanoscale nickel oxide/nickel heterostructures for active hydrogen evolution electrocatalysis. Nature Communications, 2014, 5, 4695.	12.8	1,413
3	Atom-by-atom structural and chemical analysis by annular dark-field electron microscopy. Nature, 2010, 464, 571-574.	27.8	1,138
4	High-resolution Z-contrast imaging of crystals. Ultramicroscopy, 1991, 37, 14-38.	1.9	836
5	Colossal Ionic Conductivity at Interfaces of Epitaxial ZrO ₂ :Y ₂ O ₃ /SrTiO ₃ Heterostructures. Science, 2008, 321, 676-680.	12.6	675
6	Dopamine as a Carbon Source: The Controlled Synthesis of Hollow Carbon Spheres and Yolkâ€Structured Carbon Nanocomposites. Angewandte Chemie - International Edition, 2011, 50, 6799-6802.	13.8	674
7	Chemically sensitive structure-imaging with a scanning transmission electron microscope. Nature, 1988, 336, 565-567.	27.8	638
8	Hollow Mo-doped CoP nanoarrays for efficient overall water splitting. Nano Energy, 2018, 48, 73-80.	16.0	608
9	High-resolution incoherent imaging of crystals. Physical Review Letters, 1990, 64, 938-941.	7.8	587
10	Monolayer PtSe₂, a New Semiconducting Transition-Metal-Dichalcogenide, Epitaxially Grown by Direct Selenization of Pt. Nano Letters, 2015, 15, 4013-4018.	9.1	560
11	High-entropy-stabilized chalcogenides with high thermoelectric performance. Science, 2021, 371, 830-834.	12.6	546
12	ZnO Nanoneedles Grown Vertically on Si Substrates by Non-Catalytic Vapor-Phase Epitaxy. Advanced Materials, 2002, 14, 1841-1843.	21.0	528
13	Defect Engineering of Oxygenâ€Deficient Manganese Oxide to Achieve Highâ€Performing Aqueous Zinc Ion Battery. Advanced Energy Materials, 2019, 9, 1803815.	19.5	504
14	Z-contrast stem for materials science. Ultramicroscopy, 1989, 30, 58-69.	1.9	486
15	Atomic-resolution chemical analysis using a scanning transmission electron microscope. Nature, 1993, 366, 143-146.	27.8	483
16	Direct Sub-Angstrom Imaging of a Crystal Lattice. Science, 2004, 305, 1741-1741.	12.6	463
17	Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449.	9.1	463
18	Irradiation-free, columnar defects comprised of self-assembled nanodots and nanorods resulting in strongly enhanced flux-pinning in YBa2Cu3O7â^Î´films. Superconductor Science and Technology, 2005, 18, 1533-1538.	3.5	443

#	Article	IF	Citations
19	Observation of a periodic array of flux-closure quadrants in strained ferroelectric PbTiO ₃ films. Science, 2015, 348, 547-551.	12.6	430
20	Incoherent imaging using dynamically scattered coherent electrons. Ultramicroscopy, 1999, 78, 111-124.	1.9	408
21	Hollow Co₃O₄ Nanosphere Embedded in Carbon Arrays for Stable and Flexible Solidâ€State Zincâ€“Air Batteries. Advanced Materials, 2017, 29, 1704117.	21.0	407
22	High thermoelectric performance in low-cost SnS _{0.91} Se _{0.09} crystals. Science, 2019, 365, 1418-1424.	12.6	395
23	The structural origin of enhanced piezoelectric performance and stability in lead free ceramics. Energy and Environmental Science, 2017, 10, 528-537.	30.8	386
24	Single Co Atoms Anchored in Porous N-Doped Carbon for Efficient Zincâ€'Air Battery Cathodes. ACS Catalysis, 2018, 8, 8961-8969.	11.2	364
25	Quantum Confinement Observed in ZnO/ZnMgO Nanorod Heterostructures. Advanced Materials, 2003, 15, 526-529.	21.0	344
26	Time-resolved imaging of gas phase nanoparticle synthesis by laser ablation. Applied Physics Letters, 1998, 72, 2987-2989.	3.3	318
27	Giant Piezoelectricity and High Curie Temperature in Nanostructured Alkali Niobate Lead-Free Piezoceramics through Phase Coexistence. Journal of the American Chemical Society, 2016, 138, 15459-15464.	13.7	310
28	Suppression of Octahedral Tilts and Associated Changes in Electronic Properties at Epitaxial Oxide Heterostructure Interfaces. Physical Review Letters, 2010, 105, 087204.	7.8	308
29	Ultrathin Two-Dimensional Membranes Assembled by Ionic Covalent Organic Nanosheets with Reduced Apertures for Gas Separation. Journal of the American Chemical Society, 2020, 142, 4472-4480.	13.7	304
30	Spectroscopic Imaging of Single Atoms Within a Bulk Solid. Physical Review Letters, 2004, 92, 095502.	7.8	299
31	Ultrahigh Performance in Lead-Free Piezoceramics Utilizing a Relaxor Slush Polar State with Multiphase Coexistence. Journal of the American Chemical Society, 2019, 141, 13987-13994.	13.7	296
32	Direct Imaging of the Atomic Configuration of Ultradispersed Catalysts. Science, 1996, 274, 413-415.	12.6	291
33	Observation of rare-earth segregation in silicon nitride ceramics at subnanometre dimensions. Nature, 2004, 428, 730-733.	27.8	289
34	Copper Single Atoms Anchored in Porous Nitrogen-Doped Carbon as Efficient pH-Universal Catalysts for the Nitrogen Reduction Reaction. ACS Catalysis, 2019, 9, 10166-10173.	11.2	284
35	Enhanced tunnelling electroresistance effect due to a ferroelectrically induced phase transition at a magnetic complex oxide interface. Nature Materials, 2013, 12, 397-402.	27.5	283
36	Probing oxygen vacancy concentration and homogeneity in solid-oxide fuel-cell cathode materials on the subunit-cell level. Nature Materials, 2012, 11, 888-894.	27.5	282

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37	Reversible Intercalation of Charged Iodine Chains into Carbon Nanotube Ropes. Physical Review Letters, 1998, 80, 5560-5563.	7.8	278
38	Atomic-resolution imaging of oxidation states in manganites. Physical Review B, 2009, 79, .	3.2	274
39	Cactusâ€Like NiCoP/NiCoâ€OH 3D Architecture with Tunable Composition for Highâ€Performance Electrochemical Capacitors. Advanced Functional Materials, 2018, 28, 1800036.	14.9	274
40	Sulfur-doped cobalt phosphide nanotube arrays for highly stable hybrid supercapacitor. Nano Energy, 2017, 39, 162-171.	16.0	273
41	Long-range ferromagnetic ordering in manganese-doped two-dimensional dichalcogenides. Physical Review B, 2013, 88, .	3.2	271
42	p-type doping of MoS₂ thin films using Nb. Applied Physics Letters, 2014, 104, 092104.	3.3	268
43	Detection of Single Atoms and Buried Defects in Three Dimensions by Aberration-Corrected Electron Microscope with 0.5-Ã... Information Limit. Microscopy and Microanalysis, 2008, 14, 469-477.	0.4	266
44	Catalytically active single-atom niobium in graphitic layers. Nature Communications, 2013, 4, 1924.	12.8	261
45	Grain-Boundary-Enhanced Carrier Collection in CdTe Solar Cells. Physical Review Letters, 2014, 112, 156103.	7.8	258
46	Direct imaging of surface cusp evolution during strained-layer epitaxy and implications for strain relaxation. Physical Review Letters, 1993, 71, 1744-1747.	7.8	253
47	Chemically Exfoliated VSe₂ Monolayers with Roomâ€Temperature Ferromagnetism. Advanced Materials, 2019, 31, e1903779.	21.0	251
48	ZnO Nanosheets Abundant in Oxygen Vacancies Derived from Metalâ€Organic Frameworks for ppbâ€Level Gas Sensing. Advanced Materials, 2019, 31, e1807161.	21.0	251
49	Metalâ€“organic framework derived hollow CoS₂ nanotube arrays: an efficient bifunctional electrocatalyst for overall water splitting. Nanoscale Horizons, 2017, 2, 342-348.	8.0	247
50	Decorating Co/CoNx nanoparticles in nitrogen-doped carbon nanoarrays for flexible and rechargeable zinc-air batteries. Energy Storage Materials, 2019, 16, 243-250.	18.0	244
51	Atomically-thin Bi2MoO6 nanosheets with vacancy pairs for improved photocatalytic CO2 reduction. Nano Energy, 2019, 61, 54-59.	16.0	243
52	Remarkable Roles of Cu To Synergistically Optimize Phonon and Carrier Transport in n-Type PbTe-Cu₂Te. Journal of the American Chemical Society, 2017, 139, 18732-18738.	13.7	230
53	Flexible metallic nanowires with self-adaptive contacts to semiconducting transition-metal dichalcogenide monolayers. Nature Nanotechnology, 2014, 9, 436-442.	31.5	228
54	Atomic Arrangement of Iodine Atoms inside Single-Walled Carbon Nanotubes. Physical Review Letters, 2000, 84, 4621-4624.	7.8	224

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55	Direct Determination of the Chemical Bonding of Individual Impurities in Graphene. Physical Review Letters, 2012, 109, 206803.	7.8	222
56	On the origin of the high coarsening resistance of Î© plates in Alâ€“Cuâ€“Mgâ€“Ag Alloys. Acta Materialia, 2001, 49, 2827-2841.	7.9	221
57	Structural origin of reduced critical currents at YBa2Cu3O7â€“Î´ grain boundaries. Nature, 1991, 351, 47-49.	27.8	216
58	Depth sectioning with the aberration-corrected scanning transmission electron microscope. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 3044-3048.	7.1	216
59	Interface control of bulk ferroelectric polarization. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9710-9715.	7.1	212
60	Control of Octahedral Tilts and Magnetic Properties of Perovskite Oxide Heterostructures by Substrate Symmetry. Physical Review Letters, 2010, 105, 227203.	7.8	211
61	Epitaxial Growth of Centimeter-Scale Single-Crystal MoS₂ Monolayer on Au(111). ACS Nano, 2020, 14, 5036-5045.	14.6	211
62	Structural Basis for Near Unity Quantum Yield Core/Shell Nanostructures. Nano Letters, 2006, 6, 1496-1501.	9.1	210
63	Atomically Dispersed Cobalt Trifunctional Electrocatalysts with Tailored Coordination Environment for Flexible Rechargeable Znâ€“Air Battery and Selfâ€Driven Water Splitting. Advanced Energy Materials, 2020, 10, 2002896.	19.5	210
64	Three-dimensional imaging of individual hafnium atoms inside a semiconductor device. Applied Physics Letters, 2005, 87, 034104.	3.3	206
65	Synthesis, surface studies, composition and structural characterization of CdSe, core/shell and biologically active nanocrystals. Surface Science Reports, 2007, 62, 111-157.	7.2	205
66	Phase Diagram and Superconducting Dome of Infinite-Layer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Nd</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mm Thin Film. Physical Review Letters, 2020, 125, 147003.	7.8	204
67	(Ni,Co)Se₂/NiCoâ€LDH Core/Shell Structural Electrode with the Cactusâ€Like (Ni,Co)Se₂ Core for Asymmetric Supercapacitors. Small, 2019, 15, e1803895.	10.0	203
68	Realizing high performance n-type PbTe by synergistically optimizing effective mass and carrier mobility and suppressing bipolar thermal conductivity. Energy and Environmental Science, 2018, 11, 2486-2495.	30.8	200
69	Dopants adsorbed as single atoms prevent degradation of catalysts. Nature Materials, 2004, 3, 143-146.	27.5	199
70	Efficient Hydrogen Evolution of Oxidized Niâ€N₃ Defective Sites for Alkaline Freshwater and Seawater Electrolysis. Advanced Materials, 2021, 33, e2003846.	21.0	198
71	Atomically localized plasmon enhancement in monolayer graphene. Nature Nanotechnology, 2012, 7, 161-165.	31.5	196
72	Hierarchically Imprinted Sorbents for the Separation of Metal Ions. Journal of the American Chemical Society, 2000, 122, 992-993.	13.7	195

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73	Integrated Hierarchical Carbon Flake Arrays with Hollow Pâ€Doped CoSe₂ Nanoclusters as an Advanced Bifunctional Catalyst for Znâ€“Air Batteries. Advanced Functional Materials, 2018, 28, 1804846.	14.9	192
74	Direct Determination of Grain Boundary Atomic Structure in SrTiO3. Science, 1994, 266, 102-104.	12.6	191
75	Synergizing Mo Single Atoms and Mo₂C Nanoparticles on CNTs Synchronizes Selectivity and Activity of Electrocatalytic N₂ Reduction to Ammonia. Advanced Materials, 2020, 32, e2002177.	21.0	190
76	Extraordinary thermoelectric performance in n-type manganese doped Mg3Sb2 Zintl: High band degeneracy, tuned carrier scattering mechanism and hierarchical microstructure. Nano Energy, 2018, 52, 246-255.	16.0	188
77	Practical High Piezoelectricity in Barium Titanate Ceramics Utilizing Multiphase Convergence with Broad Structural Flexibility. Journal of the American Chemical Society, 2018, 140, 15252-15260.	13.7	187
78	Bonding Arrangements at theSiâ^'SiO2andSiCâ^'SiO2Interfaces and a Possible Origin of their Contrasting Properties. Physical Review Letters, 2000, 84, 943-946.	7.8	186
79	Nanoâ€Ferroelectric for High Efficiency Overall Water Splitting under Ultrasonic Vibration. Angewandte Chemie - International Edition, 2019, 58, 15076-15081.	13.8	185
80	Engineering covalently bonded 2D layered materials by self-intercalation. Nature, 2020, 581, 171-177.	27.8	185
81	Ultrasensitive 2D Bi₂O₂Se Phototransistors on Silicon Substrates. Advanced Materials, 2019, 31, e1804945.	21.0	183
82	Ni-Doped Cobaltâ€“Cobalt Nitride Heterostructure Arrays for High-Power Supercapacitors. ACS Energy Letters, 2018, 3, 2462-2469.	17.4	182
83	Hydrogen and the Structure of the Transition Aluminas. Journal of the American Chemical Society, 1999, 121, 7493-7499.	13.7	179
84	Enhanced current transport at grain boundaries in high-Tc superconductors. Nature, 2005, 435, 475-478.	27.8	177
85	Growth and relaxation mechanisms of YBa2Cu3O7â^'x films. Physica C: Superconductivity and Its Applications, 1992, 202, 1-11.	1.2	176
86	Nonstoichiometry and the Electrical Activity of Grain Boundaries inSrTiO3. Physical Review Letters, 2001, 86, 4056-4059.	7.8	176
87	Potential-Dependent Phase Transition and Mo-Enriched Surface Reconstruction of Î³-CoOOH in a Heterostructured Co-Mo₂C Precatalyst Enable Water Oxidation. ACS Catalysis, 2020, 10, 4411-4419.	11.2	174
88	Thermal stability and catalytic activity of gold nanoparticles supported on silica. Journal of Catalysis, 2009, 262, 92-101.	6.2	170
89	Direct observation of the core structures of threading dislocations in GaN. Applied Physics Letters, 1998, 72, 2680-2682.	3.3	169
90	Interactions of Hydrogen with CeO2. Journal of the American Chemical Society, 2001, 123, 6609-6611.	13.7	167

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91	Direct imaging of interfacial ordering in ultrathin (SimGen)psuperlattices. Physical Review Letters, 1991, 66, 750-753.	7.8	164
92	Molecular-Beam Epitaxy of Two-Dimensional In₂Se₃ and Its Giant Electroresistance Switching in Ferroresistive Memory Junction. Nano Letters, 2018, 18, 6340-6346.	9.1	163
93	Self-Limiting Growth of Strained Faceted Islands. Physical Review Letters, 1998, 80, 5156-5159.	7.8	162
94	Reversible, Nanometer-Scale Conductance Transitions in an Organic Complex. Physical Review Letters, 2000, 84, 1780-1783.	7.8	162
95	Heterojunction engineering of MoSe2/MoS2 with electronic modulation towards synergetic hydrogen evolution reaction and supercapacitance performance. Chemical Engineering Journal, 2019, 359, 1419-1426.	12.7	160
96	Subangstrom Resolution by Underfocused Incoherent Transmission Electron Microscopy. Physical Review Letters, 1998, 81, 4156-4159.	7.8	157
97	Entropy Engineering of SnTe: Multiâ€Principalâ€Element Alloying Leading to Ultralow Lattice Thermal Conductivity and Stateâ€ofâ€theâ€Art Thermoelectric Performance. Advanced Energy Materials, 2018, 8, 1802116.	19.5	157
98	Coupling of superconductors through a half-metallic ferromagnet: Evidence for a long-range proximity effect. Physical Review B, 2004, 69, .	3.2	152
99	Single-Atom Coated Separator for Robust Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 25147-25154.	8.0	152
100	Insulating Ferromagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>LaCoO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> A Phase Induced by Ordering of Oxygen Vacancies. Physical Review Letters, 2014, 112, .	7.8	151
101	The atomic origins of reduced critical currents at [001] tilt grain boundaries in YBa2Cu3O7â˜Îˊ thin films. Physica C: Superconductivity and Its Applications, 1998, 294, 183-193.	1.2	150
102	Mapping Octahedral Tilts and Polarization Across a Domain Wall in BiFeO₃ from Z-Contrast Scanning Transmission Electron Microscopy Image Atomic Column Shape Analysis. ACS Nano, 2010, 4, 6071-6079.	14.6	150
103	Dynamics of single-wall carbon nanotube synthesis by laser vaporization. Applied Physics A: Materials Science and Processing, 2000, 70, 153-160.	2.3	148
104	Preparation and Comparison of Supported Gold Nanocatalysts on Anatase, Brookite, Rutile, and P25 Polymorphs of TiO2for Catalytic Oxidation of CO. Journal of Physical Chemistry B, 2005, 109, 10676-10685.	2.6	146
105	Atomic engineering of high-density isolated Co atoms on graphene with proximal-atom controlled reaction selectivity. Nature Communications, 2018, 9, 3197.	12.8	146
106	Morphological Evolution of Strained Films by Cooperative Nucleation. Physical Review Letters, 1996, 77, 1330-1333.	7.8	145
107	Symmetry-dependent field-free switching of perpendicular magnetization. Nature Nanotechnology, 2021, 16, 277-282.	31.5	145
108	Crown ethers in graphene. Nature Communications, 2014, 5, 5389.	12.8	142

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109	Topological Defects: Origin of Nanopores and Enhanced Adsorption Performance in Nanoporous Carbon. Small, 2012, 8, 3283-3288.	10.0	139
110	Current-induced magnetization switching in all-oxide heterostructures. Nature Nanotechnology, 2019, 14, 939-944.	31.5	139
111	Epitaxial Ferroelectric Hf_{0.5}Zr_{0.5}O₂ Thin Films and Their Implementations in Memristors for Brainâ€Inspired Computing. Advanced Functional Materials, 2018, 28, 1806037.	14.9	138
112	AC/AB Stacking Boundaries in Bilayer Graphene. Nano Letters, 2013, 13, 3262-3268.	9.1	137
113	Realizing High Thermoelectric Performance in p-Type SnSe through Crystal Structure Modification. Journal of the American Chemical Society, 2019, 141, 1141-1149.	13.7	137
114	The effect of interfacial layer properties on the performance of Hf-based gate stack devices. Journal of Applied Physics, 2006, 100, 094108.	2.5	135
115	Direct observation of a local thermal vibration anomaly in a quasicrystal. Nature, 2003, 421, 347-350.	27.8	134
116	Conducting interfaces between band insulating oxides: The LaGaO3/SrTiO3 heterostructure. Applied Physics Letters, 2010, 97, .	3.3	133
117	Visible and Nearâ€Infrared Photothermal Catalyzed Hydrogenation of Gaseous CO₂ over Nanostructured Pd@Nb₂O₅. Advanced Science, 2016, 3, 1600189.	11.2	133
118	Metalâ€“organic framework-derived hierarchical MoS₂/CoS₂ nanotube arrays as pH-universal electrocatalysts for efficient hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 13339-13346.	10.3	133
119	Surfactant Organic Molecules Restore Magnetism in Metal-Oxide Nanoparticle Surfaces. Nano Letters, 2012, 12, 2499-2503.	9.1	132
120	Electron Transfer and Ionic Displacements at the Origin of the 2D Electron Gas at the LAO/STO Interface: Direct Measurements with Atomicâ€Column Spatial Resolution. Advanced Materials, 2012, 24, 3952-3957.	21.0	132
121	Thermoelectric SnTe with Band Convergence, Dense Dislocations, and Interstitials through Sn Selfâ€Compensation and Mn Alloying. Small, 2018, 14, e1802615.	10.0	132
122	Kinetic Pathways to Strain Relaxation in the Si-Ge System. MRS Bulletin, 1996, 21, 31-37.	3.5	131
123	Quasicrystals as cluster aggregates. Nature Materials, 2004, 3, 759-767.	27.5	131
124	Band Sharpening and Band Alignment Enable High Quality Factor to Enhance Thermoelectric Performance in n-Type PbS. Journal of the American Chemical Society, 2020, 142, 4051-4060.	13.7	130
125	Nucleation of Single-Walled Carbon Nanotubes. Physical Review Letters, 2003, 90, 145501.	7.8	127
126	Point Defects and Localized Excitons in 2D WSe₂. ACS Nano, 2019, 13, 6050-6059.	14.6	127

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127	Direct observation of dislocation dissociation and Suzuki segregation in a Mgâ€“Znâ€“Y alloy by aberration-corrected scanning transmission electron microscopy. Acta Materialia, 2013, 61, 350-359.	7.9	126
128	Engineering Local and Global Structures of Single Co Atoms for a Superior Oxygen Reduction Reaction. ACS Catalysis, 2020, 10, 5862-5870.	11.2	126
129	Controlled Synthesis of CdS Nanoparticles inside Ordered Mesoporous Silica Using Ion-Exchange Reaction. Journal of Physical Chemistry B, 2001, 105, 6755-6758.	2.6	125
130	Correlated Optical Measurements and Plasmon Mapping of Silver Nanorods. Nano Letters, 2011, 11, 3482-3488.	9.1	125
131	Origin of Colossal Ionic Conductivity in Oxide Multilayers: Interface Induced Sublattice Disorder. Physical Review Letters, 2010, 104, 115901.	7.8	124
132	Lattice mismatch accommodation via oxygen vacancy ordering in epitaxial La0.5Sr0.5CoO3-Î´ thin films. APL Materials, 2013, 1, .	5.1	124
133	Three-dimensional ADF imaging of individual atoms by through-focal series scanning transmission electron microscopy. Ultramicroscopy, 2006, 106, 1062-1068.	1.9	122
134	Role of the nanoscale in catalytic CO oxidation by supported Au and Pt nanostructures. Physical Review B, 2007, 76, .	3.2	122
135	Strain-Driven Oxygen Deficiency in Self-Assembled, Nanostructured, Composite Oxide Films. ACS Nano, 2011, 5, 4783-4789.	14.6	122
136	Conformal dispersed cobalt nanoparticles in hollow carbon nanotube arrays for flexible Zn-air and Al-air batteries. Chemical Engineering Journal, 2019, 369, 988-995.	12.7	121
137	Atomically Dispersed Indium Sites for Selective CO₂ Electroreduction to Formic Acid. ACS Nano, 2021, 15, 5671-5678.	14.6	121
138	Phase-controllable growth of ultrathin 2D magnetic FeTe crystals. Nature Communications, 2020, 11, 3729.	12.8	120
139	Determination of the ordered structures of Pb(Mg1/3Nb2/3)O3 and Ba(Mg1/3Nb2/3)O3 by atomic-resolution Z-contrast imaging. Applied Physics Letters, 1998, 72, 3145-3147.	3.3	119
140	Nonstoichiometric Dislocation Cores in Â-Alumina. Science, 2007, 316, 82-85.	12.6	119
141	Point Defect Configurations of Supersaturated Au Atoms Inside Si Nanowires. Nano Letters, 2008, 8, 1016-1019.	9.1	119
142	Direct Imaging of Nanoscale Phase Separation in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>La</mml:mi><mml:mn>0.55</mml:mn></mml:msub><mml:msub><mml:mi>Ca</mml:mi><mml Relationship to Colossal Magnetoresistance. Physical Review Letters, 2009, 103, 097202.	7.8	118
143	Materializing efficient methanol oxidation via electron delocalization in nickel hydroxide nanoribbon. Nature Communications, 2020, 11, 4647.	12.8	117
144	Platinum-Modulated Cobalt Nanocatalysts for Low-Temperature Aqueous-Phase Fischerâ€“Tropsch Synthesis. Journal of the American Chemical Society, 2013, 135, 4149-4158.	13.7	116

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145	Simultaneously enhancing the power factor and reducing the thermal conductivity of SnTe via introducing its analogues. Energy and Environmental Science, 2017, 10, 2420-2431.	30.8	116
146	In situ imaging and spectroscopy of single-wall carbon nanotube synthesis by laser vaporization. Applied Physics Letters, 2000, 76, 182-184.	3.3	115
147	Controlled Growth and Thickness‐Dependent Conduction‐Type Transition of 2D Ferrimagnetic Cr₂S₃ Semiconductors. Advanced Materials, 2020, 32, e1905896.	21.0	114
148	“Charge Leakage”at LaMnO₃/SrTiO₃ Interfaces. Advanced Materials, 2010, 22, 627-632.	21.0	113
149	Heterogeneous Single Atom Electrocatalysis, Where “Singles”Are “Married”. Advanced Energy Materials, 2020, 10, 1903181.	19.5	113
150	Z-Contrast Transmission Electron Microscopy: Direct Atomic Imaging of Materials. Annual Review of Materials Research, 1992, 22, 171-195.	5.5	111
151	Atomically-precise dopant-controlled single cluster catalysis for electrochemical nitrogen reduction. Nature Communications, 2020, 11, 4389.	12.8	110
152	Photoluminescence from gas-suspended SiOx nanoparticles synthesized by laser ablation. Applied Physics Letters, 1998, 73, 438-440.	3.3	108
153	Impurity-Induced Structural Transformation of a MgO Grain Boundary. Physical Review Letters, 1998, 81, 3675-3678.	7.8	108
154	Ultrathin nickel boron oxide nanosheets assembled vertically on graphene: a new hybrid 2D material for enhanced photo/electro-catalysis. Materials Horizons, 2017, 4, 885-894.	12.2	108
155	Elemental mapping with elastically scattered electrons. Journal of Microscopy, 1986, 144, 229-249.	1.8	105
156	Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. Nano Letters, 2018, 18, 482-490.	9.1	105
157	Atomically sharp interface enabled ultrahigh-speed non-volatile memory devices. Nature Nanotechnology, 2021, 16, 882-887.	31.5	105
158	Direct visualization of reversible dynamics in a Si6 cluster embedded in a graphene pore. Nature Communications, 2013, 4, 1650.	12.8	104
159	Growth of Nb-Doped Monolayer WS₂ by Liquid-Phase Precursor Mixing. ACS Nano, 2019, 13, 10768-10775.	14.6	102
160	Printable two-dimensional superconducting monolayers. Nature Materials, 2021, 20, 181-187.	27.5	102
161	Atomic-Resolution Electron Energy Loss Spectroscopy Imaging in Aberration Corrected Scanning Transmission Electron Microscopy. Physical Review Letters, 2003, 91, 105503.	7.8	101
162	Influence of defects on structural and magnetic properties of multifunctional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">La</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">Ni</mml:mi><mml:mi mathvariant="normal">Mn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math>thin films. Physical Review B, 2008, 77, .	3.2	101

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163	Interplay of Octahedral Tilts and Polar Order in BiFeO₃ Films. Advanced Materials, 2013, 25, 2497-2504.	21.0	101
164	Gigahertz Dielectric Polarization of Substitutional Single Niobium Atoms in Defective Graphitic Layers. Physical Review Letters, 2015, 115, 147601.	7.8	101
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