Naoya Shibata

List of Publications by Year in Descending Order

337 papers	11,915 citations	54 h-index	101 g-index
353 ext. papers	14,448 ext. citations	7.1 avg, IF	6.49 L-index

#	Paper	IF	Citations
337	TEM Characterization of Lattice Defects Associated with Deformation and Fracture in □Al2O3 **2022**, 133-156		
336	Development of Tilt-Scan System for Differential Phase Contrast Scanning Transmission Electron Microscopy.. *Microscopy (Oxford, England)*, **2022**,	1.3	2
335	Real-space visualization of intrinsic magnetic fields of an antiferromagnet.. *Nature*, **2022**, 602, 234-239	50.4	5
334	Interface engineering of TaN thin film photoanode for highly efficient photoelectrochemical water splitting.. *Nature Communications*, **2022**, 13, 729	17.4	13
333	Enhanced Overall Water Splitting by a Zirconium-Doped TaON-Based Photocatalyst.. *Angewandte Chemie - International Edition*, **2022**, e202116573	16.4	3
332	Direct imaging of the disconnection climb mediated point defects absorption by a grain boundary.. *Nature Communications*, **2022**, 13, 1455	17.4	0
331	Machine learning in scanning transmission electron microscopy. *Nature Reviews Methods Primers*, **2022**, 2,		5
330	The Observation of Local Electric Fields in GaN/AlGaN/InGaN Multi-heterostructures by Differential Phase Contrast STEM. *IEEJ Transactions on Electronics, Information and Systems*, **2022**, 142, 367-372	0.1	
329	Atomic and electronic band structures of Y-doped Al₂O₃ grain boundaries. *Journal of the Ceramic Society of Japan*, **2022**, 130, 286-289	1	0
328	Quantitative electric field mapping in semiconductor heterostructures via tilt-scan averaged DPC STEM.. *Ultramicroscopy*, **2022**, 238, 113538	3.1	1
327	Experimental Observation of Long-Range Magnetic Order in Icosahedral Quasicrystals. *Journal of the American Chemical Society*, **2021**, 143, 19938-19944	16.4	4
326	Factors limiting quantitative phase retrieval in atomic-resolution differential phase contrast scanning transmission electron microscopy using a segmented detector.. *Ultramicroscopy*, **2021**, 233, 113457	3.1	0
325	A self-healing catalyst for electrocatalytic and photoelectrochemical oxygen evolution in highly alkaline conditions. *Nature Communications*, **2021**, 12, 5980	17.4	10
324	Reprint of: Automated geometric aberration correction for large-angle illumination STEM. *Ultramicroscopy*, **2021**, 231, 113410	3.1	
323	Improving the depth resolution of STEM-ADF sectioning by 3D deconvolution. *Microscopy (Oxford, England)*, **2021**, 70, 241-249	1.3	1
322	Automated geometric aberration correction for large-angle illumination STEM. *Ultramicroscopy*, **2021**, 222, 113215	3.1	2
321	Direct visualization of anionic electrons in an electride reveals inhomogeneities. *Science Advances*, **2021**, 7,	14.3	7

320	Atomic-Resolution Topographic Imaging of Crystal Surfaces. *ACS Nano*, **2021**, 15, 9186-9193	16.7	1
319	Simultaneously Tuning the Defects and Surface Properties of TaN Nanoparticles by Mg-Zr Codoping for Significantly Accelerated Photocatalytic H Evolution. *Journal of the American Chemical Society*, **2021**, 143, 10059-10064	16.4	17
318	Surface Modifications of (ZnSe)(CuGaSe) to Promote Photocatalytic Z-Scheme Overall Water Splitting. *Journal of the American Chemical Society*, **2021**, 143, 10633-10641	16.4	29
317	Toward quantitative electromagnetic field imaging by differential-phase-contrast scanning transmission electron microscopy. *Microscopy (Oxford, England)*, **2021**, 70, 148-160	1.3	8
316	Ultra-high contrast STEM imaging for segmented/pixelated detectors by maximizing the signal-to-noise ratio. *Ultramicroscopy*, **2021**, 220, 113133	3.1	3
315	Fabrication and characterization of tetragonal yttria-stabilized zirconia single-crystalline thin film. *Journal of the American Ceramic Society*, **2021**, 104, 1198-1203	3.8	0
314	Synthesis of Y2Ti2O5S2 by thermal sulfidation for photocatalytic water oxidation and reduction under visible light irradiation. *Research on Chemical Intermediates*, **2021**, 47, 225-234	2.8	6
313	Direct imaging of atomistic grain boundary migration. *Nature Materials*, **2021**, 20, 951-955	27	23
312	Nanometre imaging of FeGeTe ferromagnetic domain walls. *Nanotechnology*, **2021**, 32, 205703	3.4	0
311	Sequential cocatalyst decoration on BaTaON towards highly-active Z-scheme water splitting. *Nature Communications*, **2021**, 12, 1005	17.4	46
310	Atomistic Origin of Li-Ion Conductivity Reduction at (LiLa)TiO Grain Boundary. *Nano Letters*, **2021**, 21, 6282-6288	11.5	0
309	Development of High-Speed Scan System for Atomic Resolution STEM. *Microscopy and Microanalysis*, **2021**, 27, 2710-2712	0.5	
308	Synthesis of a Ga-doped La5Ti2Cu0.9Ag0.1O7S5 photocatalyst by thermal sulfidation for hydrogen evolution under visible light. *Journal of Catalysis*, **2021**, 399, 230-236	7.3	5
307	Direct atomistic defect observations by depth sectioning and dynamic STEM. *Microscopy and Microanalysis*, **2021**, 27, 2138-2139	0.5	
306	Direct visualization of nucleation intermediate state of magnetic skyrmion from helical stripes assisted by artificial surface pits. *Journal of Magnetism and Magnetic Materials*, **2021**, 531, 167976	2.8	0
305	Photocatalytic solar hydrogen production from water on a 100-m scale. *Nature*, **2021**, 598, 304-307	50.4	134
304	Phase-Contrast-Based Structure Retrieval Methods in Atomic Resolution Scanning Transmission Electron Microscopy □When They Hold and When They Don□t. *Microscopy and Microanalysis*, **2020**, 26, 442-443	0.5	0
303	Quantitative electric field mapping of a p-n junction by DPC STEM. *Ultramicroscopy*, **2020**, 216, 113033	3.1	8

302	Photocatalytic water splitting with a quantum efficiency of almost unity. *Nature*, **2020**, 581, 411-414	50.4	533
301	Magnetic-structure imaging in polycrystalline materials by specimen-tilt series averaged DPC STEM. *Microscopy (Oxford, England)*, **2020**, 69, 312-320	1.3	11
300	Self-activated Rh-Zr mixed oxide as a nonhazardous cocatalyst for photocatalytic hydrogen evolution. *Chemical Science*, **2020**, 11, 6862-6867	9.4	8
299	Three-Dimensional Imaging of a Single Dopant in a Crystal. *Physical Review Applied*, **2020**, 13,	4.3	12
298	Efficient Water Oxidation Using Ta N Thin Film Photoelectrodes Prepared on Insulating Transparent Substrates. *ChemSusChem*, **2020**, 13, 1974-1978	8.3	11
297	Direct Measurement of Electronic Band Structures at Oxide Grain Boundaries. *Nano Letters*, **2020**, 20, 2530-2536	11.5	15
296	Ultrafast Encapsulation of Metal Nanoclusters into MFI Zeolite in the Course of Its Crystallization: Catalytic Application for Propane Dehydrogenation. *Angewandte Chemie - International Edition*, **2020**, 59, 19669-19674	16.4	24
295	Plasma-enhanced chemical vapor deposition Ta3N5 synthesis leading to high current density during PEC oxygen evolution. *Sustainable Energy and Fuels*, **2020**, 4, 2293-2300	5.8	4
294	Grain boundary Li-ion conductivity in (Li0.33La0.56)TiO3 polycrystal. *Applied Physics Letters*, **2020**, 116, 043901	3.4	14
293	Thickness-dependent frictional behavior of topological insulator Bi2Se3 nanoplates. *Applied Physics A: Materials Science and Processing*, **2020**, 126, 1	2.6	0
292	High spatiotemporal-resolution imaging in the scanning transmission electron microscope. *Microscopy (Oxford, England)*, **2020**, 69, 240-247	1.3	13
291	First-principles calculations of group IIA and group IV impurities in Al2O3. *Physical Review Materials*, **2020**, 4,	3.2	3
290	Band structure engineering and defect control of Ta3N5 for efficient photoelectrochemical water oxidation. *Nature Catalysis*, **2020**, 3, 932-940	36.5	80
289	Atomic and electronic band structures of Ti-doped Al2O3 grain boundaries. *Acta Materialia*, **2020**, 201, 488-493	8.4	5
288	Oxygen-Induced Reversible Sn-Dopant Deactivation between Indium Tin Oxide and Single-Crystalline Oxide Nanowire Leading to Interfacial Switching. *ACS Applied Materials & Interfaces*, **2020**, 12, 52929-52936	9.5	4
287	Ultrafast Encapsulation of Metal Nanoclusters into MFI Zeolite in the Course of Its Crystallization: Catalytic Application for Propane Dehydrogenation. *Angewandte Chemie*, **2020**, 132, 19837-19842	3.6	1
286	Stabilization of a honeycomb lattice of IrO6 octahedra by formation of ilmenite-type superlattices in MnTiO3. *Communications Materials*, **2020**, 1,	6	2
285	Atomic structures of Ti-doped Al2O3 Σ13 grain boundary with a small amount of Si impurity. *Journal of the American Ceramic Society*, **2020**, 103, 6659-6665	3.8	2

284	Dislocation and oxygen-release driven delithiation in LiMnO. *Nature Communications*, **2020**, 11, 4452	17.4	17
283	Suppressing dynamical diffraction artefacts in differential phase contrast scanning transmission electron microscopy of long-range electromagnetic fields via precession. *Ultramicroscopy*, **2020**, 219, 113097	3.1	6
282	Efficient photocatalytic hydrogen evolution on single-crystalline metal selenide particles with suitable cocatalysts. *Chemical Science*, **2020**, 11, 6436-6441	9.4	13
281	Advanced Scanning Transmission Electron Microscopy as a Tool for Direct Real-Space Visualization and Artificial Control of Quantum Spin Textures. *Microscopy and Microanalysis*, **2019**, 25, 954-955	0.5	
280	Imaging Low Z Materials in Crystalline Environments Via Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2019**, 25, 1732-1733	0.5	2
279	Light Element Imaging Technique at Low Dose Condition by Processing Simultaneously Obtained STEM Images Using a Segmented Detector. *Microscopy and Microanalysis*, **2019**, 25, 484-485	0.5	
278	Atomic-resolution differential phase contrast electron microscopy. *Journal of the Ceramic Society of Japan*, **2019**, 127, 708-714	1	5
277	The effects of annealing barium niobium oxynitride in argon on photoelectrochemical water oxidation activity. *Journal of Materials Chemistry A*, **2019**, 7, 493-502	13	19
276	Defect-Rich NiCeOx Electrocatalyst with Ultrahigh Stability and Low Overpotential for Water Oxidation. *ACS Catalysis*, **2019**, 9, 1605-1611	13.1	64
275	Atomic resolution electron microscopy in a magnetic field free environment. *Nature Communications*, **2019**, 10, 2308	17.4	28
274	Sunlight-Driven Production of Methylcyclohexane from Water and Toluene Using ZnSe : Cu(In,Ga)Se2-Based Photocathode. *ChemCatChem*, **2019**, 11, 4266-4271	5.2	7
273	Oxysulfide photocatalyst for visible-light-driven overall water splitting. *Nature Materials*, **2019**, 18, 827-832	27	222
272	Direct observation of atomic-scale fracture path within ceramic grain boundary core. *Nature Communications*, **2019**, 10, 2112	17.4	18
271	High contrast STEM imaging for light elements by an annular segmented detector. *Ultramicroscopy*, **2019**, 202, 148-155	3.1	6
270	One-dimensional Anisotropic Electronic States in Needle-shaped La5Ti2CuS5O7 Single Crystals Grown in Molten Salt in Bridgman Furnace. *Crystal Growth and Design*, **2019**, 19, 2419-2427	3.5	2
269	Unusual Oxygen Partial Pressure Dependence of Electrical Transport of Single-Crystalline Metal Oxide Nanowires Grown by the Vapor-Liquid-Solid Process. *Nano Letters*, **2019**, 19, 1675-1681	11.5	5
268	Metal selenide photocatalysts for visible-light-driven Z-scheme pure water splitting. *Journal of Materials Chemistry A*, **2019**, 7, 7415-7422	13	46
267	Thin-film stabilization of LiNbO3-type ZnSnO3 and MgSnO3 by molecular-beam epitaxy. *APL Materials*, **2019**, 7, 022505	5.7	13

266	The core structure of 60° mixed basal dislocation in alumina (α-Al2O3) introduced by in situ TEM nanoindentation. *Scripta Materialia*, **2019**, 163, 157-162	5.6	7
265	Accurate measurement of electric potentials in biased GaAs compound semiconductors by phase-shifting electron holography. *Microscopy (Oxford, England)*, **2019**, 68, 159-166	1.3	10
264	In situ STEM Mechanical Experiments at Atomic-Resolution Using a MEMS Device. *Microscopy and Microanalysis*, **2019**, 25, 1884-1885	0.5	2
263	Iterative Algorithm of Atomic Potential Reconstruction Based on DPC Signal from Thick Specimens. *Microscopy and Microanalysis*, **2019**, 25, 60-61	0.5	
262	Solar-Driven Water Splitting over a BaTaO2N Photoanode Enhanced by Annealing in Argon. *ACS Applied Energy Materials*, **2019**, 2, 5777-5784	6.1	23
261	Transition-Metal Distribution in Brownmillerite CaFeCoO. *Inorganic Chemistry*, **2019**, 58, 10209-10216	5.1	3
260	Differential Phase Contrast Scanning Transmission Electron Microscopy at Atomic Resolution. *Microscopy and Microanalysis*, **2019**, 25, 14-15	0.5	
259	Redox-Inactive CO Determines Atmospheric Stability of Electrical Properties of ZnO Nanowire Devices through a Room-Temperature Surface Reaction. *ACS Applied Materials & Interfaces*, **2019**, 11, 40260-40266	9.5	9
258	Fast Li-ion conduction at grain boundaries in (La,Li)NbO3 polycrystals. *Journal of Power Sources*, **2019**, 441, 227187	8.9	10
257	Upscaling of Temperature-Sensitive Particle Photocatalyst Electrodes: Fully Ambient and Scalable Roll-Press Fabrication of Ta3N5 Photoelectrodes on Metal Substrate. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 19407-19414	8.3	6
256	Electric Field Imaging at Atomic Resolution by DPC STEM. *Materia Japan*, **2019**, 58, 104-104	0.1	
255	Direct Imaging of Local Electromagnetic Fields by DPC STEM. *Materia Japan*, **2019**, 58, 433-439	0.1	
254	Advanced Characterization Nanotechnology Platform, the University of Tokyo. *Materia Japan*, **2019**, 58, 727-732	0.1	
253	Direct Electric Field Imaging of Atomistic Graphene Defects. *Nihon Kessho Gakkaishi*, **2019**, 61, 231-236	0	
252	Atomic Scale Origin of Enhanced Ionic Conductivity at Crystal Defects. *Nano Letters*, **2019**, 19, 2162-2168	11.5	15
251	PM-03 New Magnetic Structure Imaging Techniques in Polycrystalline Materials by DPC STEM. *Microscopy (Oxford, England)*, **2019**, 68, i36-i36	1.3	
250	Coexistence of two different atomic structures in the {1̄3} pyramidal twin boundary in α-Al2O3. *Philosophical Magazine Letters*, **2019**, 99, 435-443	1	1
249	Large angle illumination enabling accurate structure reconstruction from thick samples in scanning transmission electron microscopy. *Ultramicroscopy*, **2019**, 197, 112-121	3.1	10

248	Direct Determination of Atomic Structure and Magnetic Coupling of Magnetite Twin Boundaries. *ACS Nano*, **2018**, 12, 2662-2668	16.7	24
247	Dissociation reaction of the 1/3(leftlangle {bar{1}101} rightrangle) edge dislocation in Al2O3. *Journal of Materials Science*, **2018**, 53, 8049-8058	4.3	4
246	Probing the limits of the rigid-intensity-shift model in differential-phase-contrast scanning transmission electron microscopy. *Physical Review A*, **2018**, 97,	2.6	11
245	Stable Hydrogen Production from Water on an NIR-Responsive Photocathode under Harsh Conditions. *Small Methods*, **2018**, 2, 1800018	12.8	14
244	Inversion domain network stabilization and spinel phase suppression in ZnO. *Journal of the American Ceramic Society*, **2018**, 101, 2616-2626	3.8	7
243	Stable Magnetic Skyrmion States at Room Temperature Confined to Corrals of Artificial Surface Pits Fabricated by a Focused Electron Beam. *Nano Letters*, **2018**, 18, 754-762	11.5	22
242	Effects of an oxygen potential gradient and water vapor on mass transfer in polycrystalline alumina at high temperatures. *Acta Materialia*, **2018**, 151, 21-30	8.4	7
241	Atomic-scale structure relaxation, chemistry and charge distribution of dislocation cores in SrTiO. *Ultramicroscopy*, **2018**, 184, 217-224	3.1	33
240	Activation of a particulate Ta3N5 water-oxidation photoanode with a GaN hole-blocking layer. *Sustainable Energy and Fuels*, **2018**, 2, 73-78	5.8	13
239	Picometer-scale atom position analysis in annular bright-field STEM imaging. *Ultramicroscopy*, **2018**, 184, 177-187	3.1	37
238	Atomic-Scale Measurement of Flexoelectric Polarization at SrTiO_{3} Dislocations. *Physical Review Letters*, **2018**, 120, 267601	7.4	55
237	Probing the Internal Atomic Charge Density Distributions in Real Space. *ACS Nano*, **2018**, 12, 8875-8881	16.7	24
236	Influence of Dislocations in Transition Metal Oxides on Selected Physical and Chemical Properties. *Crystals*, **2018**, 8, 241	2.3	31
235	Towards zero bias photoelectrochemical water splitting: onset potential improvement on a Mg:GaN modified-Ta3N5 photoanode. *Journal of Materials Chemistry A*, **2018**, 6, 15265-15273	13	22
234	Water Splitting: Stable Hydrogen Production from Water on an NIR-Responsive Photocathode under Harsh Conditions (Small Methods 5/2018). *Small Methods*, **2018**, 2, 1800029	12.8	
233	Surface and Electric Field Imaging by Newly Designed Atomic-Resolution STEM. *Microscopy and Microanalysis*, **2018**, 24, 118-119	0.5	
232	On the quantitativeness of grain boundary chemistry using STEM EDS: A ZrO model grain boundary case study. *Ultramicroscopy*, **2018**, 193, 33-38	3.1	6
231	Electron microscope control and image analysis by DigitalMicrograph. *Materia Japan*, **2018**, 57, 584-588	0.1	

230	Attainment of 40.5 pm spatial resolution using 300 kV scanning transmission electron microscope equipped with fifth-order aberration corrector. *Microscopy (Oxford, England)*, **2018**, 67, 46-50	1.3	33
229	Surface Protective and Catalytic Layer Consisting of RuO and Pt for Stable Production of Methylcyclohexane Using Solar Energy. *ACS Applied Materials & Interfaces*, **2018**, 10, 44396-44402	9.5	11
228	Unique fitting of electrochemical impedance spectra by random walk Metropolis Hastings algorithm. *Journal of Power Sources*, **2018**, 403, 184-191	8.9	10
227	Direct electric field imaging of graphene defects. *Nature Communications*, **2018**, 9, 3878	17.4	46
226	Resolution Achievement of 40.5 pm in Scanning Transmission Electron Microscopy using 300 kV Microscope with Delta Corrector. *Microscopy and Microanalysis*, **2018**, 24, 120-121	0.5	6
225	Probe Shaping for Quantitative DPC-STEM Using Segmented Detectors. *Microscopy and Microanalysis*, **2018**, 24, 916-917	0.5	
224	Dislocation Structures in Low-Angle Grain Boundaries of □Al2O3. *Crystals*, **2018**, 8, 133	2.3	9
223	Overall water splitting by Ta3N5 nanorod single crystals grown on the edges of KTaO3 particles. *Nature Catalysis*, **2018**, 1, 756-763	36.5	259
222	Efficient Solar-Driven Water Oxidation over Perovskite-Type BaNbO2N Photoanodes Absorbing Visible Light up to 740 nm. *Advanced Energy Materials*, **2018**, 8, 1800094	21.8	47
221	Theoretical framework of statistical noise in scanning transmission electron microscopy. *Ultramicroscopy*, **2018**, 193, 118-125	3.1	24
220	Atomic-Scale Tracking of a Phase Transition from Spinel to Rocksalt in Lithium Manganese Oxide. *Chemistry of Materials*, **2017**, 29, 1006-1013	9.6	19
219	Inversion domain boundaries in Mn and Al dual-doped ZnO: Atomic structure and electronic properties. *Journal of the American Ceramic Society*, **2017**, 100, 4252-4262	3.8	14
218	Direct Observation of Impurity Segregation at Dislocation Cores in an Ionic Crystal. *Nano Letters*, **2017**, 17, 2908-2912	11.5	16
217	Mechanical force involved multiple fields switching of both local ferroelectric and magnetic domain in a Bi5Ti3FeO15 thin film. *NPG Asia Materials*, **2017**, 9, e349-e349	10.3	33
216	Molten salt flux synthesis of La5Ti2CuS5O7 towards elongated single crystallites. *Japanese Journal of Applied Physics*, **2017**, 56, 055503	1.4	7
215	Relative Li-ion mobility mapping in Li0.33La0.56TiO3polycrystalline by electron backscatter diffraction and electrochemical strain microscopy. *Applied Physics Express*, **2017**, 10, 061102	2.4	11
214	Possible absence of critical thickness and size effect in ultrathin perovskite ferroelectric films. *Nature Communications*, **2017**, 8, 15549	17.4	74
213	Highly Active GaN-Stabilized Ta3N5 Thin-Film Photoanode for Solar Water Oxidation. *Angewandte Chemie*, **2017**, 129, 4817-4821	3.6	22

212	Highly Active GaN-Stabilized Ta N Thin-Film Photoanode for Solar Water Oxidation. *Angewandte Chemie - International Edition*, **2017**, 56, 4739-4743	16.4	110
211	A Novel Class of Multiferroic Material, Bi4Ti3O12□hBiFeO3 with Localized Magnetic Ordering Evaluated from Their Single Crystals. *Advanced Electronic Materials*, **2017**, 3, 1600254	6.4	22
210	Enhancement of Charge Separation and Hydrogen Evolution on Particulate LaTiCuSO Photocathodes by Surface Modification. *Journal of Physical Chemistry Letters*, **2017**, 8, 375-379	6.4	14
209	Ultrastable low-bias water splitting photoanodes via photocorrosion inhibition and in situ catalyst regeneration. *Nature Energy*, **2017**, 2,	62.3	206
208	A particulate (ZnSe)0.85(CuIn0.7Ga0.3Se2)0.15 photocathode modified with CdS and ZnS for sunlight-driven overall water splitting. *Journal of Materials Chemistry A*, **2017**, 5, 21242-21248	13	21
207	Direct Observation of Oxygen Vacancy Distribution across Yttria-Stabilized Zirconia Grain Boundaries. *ACS Nano*, **2017**, 11, 11376-11382	16.7	37
206	Numerical Procedures to determine Potential Distribution from Electronic Field Vectors observed in Differential Phase Contrast (DPC) imaging. *Microscopy and Microanalysis*, **2017**, 23, 34-35	0.5	8
205	Atomic-Scale Structural Analysis of Metal/Nitride Interfaces Using Advanced Atomic-Resolution Analytical Electron Microscopy. *Nihon Kessho Gakkaishi*, **2017**, 59, 246-251	0	
204	New STEM/TEM Objective Lens for Atomic Resolution Lorentz Imaging. *Microscopy and Microanalysis*, **2017**, 23, 456-457	0.5	2
203	Room-temperature dilute ferromagnetic dislocations in Sr1□MnxTiO3□ *Physical Review B*, **2017**, 96,	3.3	5
202	Quantitative electric field mapping in thin specimens using a segmented detector: Revisiting the transfer function for differential phase contrast. *Ultramicroscopy*, **2017**, 182, 258-263	3.1	26
201	Better Contrast for Imaging Defects by ABF. *Microscopy and Microanalysis*, **2017**, 23, 480-481	0.5	
200	Three-Dimensional Point Defect Imaging by Large-angle Illumination STEM. *Microscopy and Microanalysis*, **2017**, 23, 424-425	0.5	1
199	Structure of (langle 110 rangle)-tilt boundaries in cubic zirconia. *Journal of Materials Science*, **2017**, 52, 4278-4287	4.3	5
198	Measuring nanometre-scale electric fields in scanning transmission electron microscopy using segmented detectors. *Ultramicroscopy*, **2017**, 182, 169-178	3.1	16
197	Direct Visualization of Local Electromagnetic Field Structures by Scanning Transmission Electron Microscopy. *Accounts of Chemical Research*, **2017**, 50, 1502-1512	24.3	49
196	Another origin of yield drop behavior in sapphire deformed via basal slip: Recombination of climb-dissociated partial dislocations. *Scripta Materialia*, **2017**, 138, 109-113	5.6	3
195	True Vapor-Liquid-Solid Process Suppresses Unintentional Carrier Doping of Single Crystalline Metal Oxide Nanowires. *Nano Letters*, **2017**, 17, 4698-4705	11.5	16

194	A new method to detect and correct sample tilt in scanning transmission electron microscopy bright-field imaging. *Ultramicroscopy*, **2017**, 173, 76-83	3.1	21
193	Quantitative Relation Between Differential Phase Contrast Images Obtained by Segmented and Pixelated Detectors. *Microscopy and Microanalysis*, **2017**, 23, 440-441	0.5	
192	Quantitative Specimen Electric Potential Maps Using Segmented and Pixel Detectors in Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2017**, 23, 442-443	0.5	1
191	Differential Phase Contrast Imaging with Reduced Dynamical Diffraction Effect. *Microscopy and Microanalysis*, **2017**, 23, 1412-1413	0.5	10
190	Direct-bonded aluminum on aluminum nitride substrates by transient liquid phase bonding. *Journal of the Ceramic Society of Japan*, **2017**, 125, 165-167	1	8
189	Boundary-artifact-free determination of potential distribution from differential phase contrast signals. *Journal of Electron Microscopy*, **2017**, 66, 397-405		12
188	Electric field imaging of single atoms. *Nature Communications*, **2017**, 8, 15631	17.4	107
187	Direct visualization of lithium via annular bright field scanning transmission electron microscopy: a review. *Microscopy (Oxford, England)*, **2017**, 66, 3-14	1.3	20
186	ABF-STEM Characterization of the {1100} Stacking Fault in Alumina. *Materia Japan*, **2016**, 55, 610-610	0.1	
185	Analysis of GaAs compound semiconductors and the semiconductor laser diode using electron holography, Lorentz microscopy, electron diffraction microscopy and differential phase contrast STEM **2016**, 719-720		
184	Highly Efficient Water Oxidation Photoanode Made of Surface Modified LaTiO N Particles. *Small*, **2016**, 12, 5468-5476	11	33
183	Photoreduced Graphene Oxide as a Conductive Binder to Improve the Water Splitting Activity of Photocatalyst Sheets. *Advanced Functional Materials*, **2016**, 26, 7011-7019	15.6	47
182	Sintering characteristics and thermoelectric properties of Mn–Al co-doped ZnO ceramics. *Journal of the Ceramic Society of Japan*, **2016**, 124, 515-522	1	15
181	Visible Light-Driven Z-Scheme Water Splitting Using Oxysulfide H Evolution Photocatalysts. *Journal of Physical Chemistry Letters*, **2016**, 7, 3892-3896	6.4	78
180	Enhanced Hydrogen Evolution under Simulated Sunlight from Neutral Electrolytes on (ZnSe)0.85(CuIn0.7Ga0.3Se2)0.15 Photocathodes Prepared by a Bilayer Method. *Angewandte Chemie*, **2016**, 128, 15555-15559	3.6	7
179	Enhanced Hydrogen Evolution under Simulated Sunlight from Neutral Electrolytes on (ZnSe) (CuIn Ga Se) Photocathodes Prepared by a Bilayer Method. *Angewandte Chemie - International Edition*, **2016**, 55, 15329-15333	16.4	35
178	Direct observation of individual dislocation interaction processes with grain boundaries. *Science Advances*, **2016**, 2, e1501926	14.3	85
177	Atomic mechanism of polarization-controlled surface reconstruction in ferroelectric thin films. *Nature Communications*, **2016**, 7, 11318	17.4	48

176	Atomic structures of a liquid-phase bonded metal/nitride heterointerface. *Scientific Reports*, **2016**, 6, 22936	4.9	17
175	Atomically ordered solute segregation behaviour in an oxide grain boundary. *Nature Communications*, **2016**, 7, 11079	17.4	70
174	Direct Visualization of the Grain Boundary Solute Segregation in Oxide Material at Atomic Resolution Using STEM-EDS. *Microscopy and Microanalysis*, **2016**, 22, 1340-1341	0.5	
173	Misalignment Induced Artifacts in Quantitative Annular Bright-Field Imaging. *Microscopy and Microanalysis*, **2016**, 22, 888-889	0.5	7
172	A Novel Photocathode Material for Sunlight-Driven Overall Water Splitting: Solid Solution of ZnSe and Cu(In,Ga)Se2. *Advanced Functional Materials*, **2016**, 26, 4570-4577	15.6	91
171	Direct observation of 𝝅 domain boundary core structure in magnetic skyrmion lattice. *Science Advances*, **2016**, 2, e1501280	14.3	80
170	Band engineering of perovskite-type transition metal oxynitrides for photocatalytic overall water splitting. *Journal of Materials Chemistry A*, **2016**, 4, 4544-4552	13	52
169	Scalable water splitting on particulate photocatalyst sheets with a solar-to-hydrogen energy conversion efficiency exceeding 1. *Nature Materials*, **2016**, 15, 611-5	27	979
168	Strain Field Analysis of High Electron Mobility-inducing Sr Vacancy Clusters in SrTiO3 Films. *Materia Japan*, **2016**, 55, 613-613	0.1	
167	Atom-resolved STEM-EDS Mapping of a Liquid-phase Bonded Metal/Nitride Heterointerface. *Materia Japan*, **2016**, 55, 611-611	0.1	
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