Nigel D Browning

List of Publications by Year in Descending Order

291 papers	13,585 citations	64 h-index	110 g-index
308 ext. papers	14,909 ext. citations	6.9 avg, IF	6.37 L-index

#	Paper	IF	Citations
291	A Pyrene-4,5,9,10-Tetraone-Based Covalent Organic Framework Delivers High Specific Capacity as a Li-Ion Positive Electrode.. *Journal of the American Chemical Society*, **2022**,	16.4	10
290	The Complex Role of Aluminium Contamination in Nickel-Rich Layered Oxide Cathodes for Lithium-Ion Batteries. *Batteries and Supercaps*, **2021**, 4, 1783-1784	5.6	
289	High temporal-resolution scanning transmission electron microscopy using sparse-serpentine scan pathways. *Scientific Reports*, **2021**, 11, 22722	4.9	0
288	Sub-Sampled Imaging for STEM: Maximising Image Speed, Resolution and Precision Through Reconstruction Parameter Refinement.. *Ultramicroscopy*, **2021**, 233, 113451	3.1	2
287	Controlling radiolysis chemistry on the nanoscale in liquid cell scanning transmission electron microscopy. *Physical Chemistry Chemical Physics*, **2021**, 23, 17766-17773	3.6	2
286	Enhanced Interface-Driven Perpendicular Magnetic Anisotropy by Symmetry Control in Oxide Superlattices. *Physical Review Applied*, **2021**, 15,	4.3	5
285	The Complex Role of Aluminium Contamination in Nickel-Rich Layered Oxide Cathodes for Lithium-Ion Batteries. *Batteries and Supercaps*, **2021**, 4, 1813	5.6	0
284	Integrated Covalent Organic Framework/Carbon Nanotube Composite as Li-Ion Positive Electrode with Ultra-High Rate Performance. *Advanced Energy Materials*, **2021**, 11, 2101880	21.8	12
283	The Potential Benefits of Compressed Sensing and Machine Learning for Advanced Imaging and Spectroscopy in the Electron Microscope. *Microscopy and Microanalysis*, **2020**, 26, 2458-2460	0.5	0
282	Quantifying the Effects of Beam Overlap on Radiation Damage via Radiolysis Products in the In-situ Liquid (S)TEM Cell. *Microscopy and Microanalysis*, **2020**, 26, 2572-2574	0.5	0
281	Event detection for undersampled electron microscopy experiments: A control chart case study. *Quality Engineering*, **2020**, 32, 244-254	1.4	1
280	Minimising damage in high resolution scanning transmission electron microscope images of nanoscale structures and processes. *Nanoscale*, **2020**, 12, 21248-21254	7.7	17
279	In situ electrochemical scanning/transmission electron microscopy of electrode□electrolyte interfaces. *MRS Bulletin*, **2020**, 45, 738-745	3.2	8
278	Design and synthesis of highly active MoVTeNb-oxides for ethane oxidative dehydrogenation. *Nature Communications*, **2019**, 10, 4012	17.4	32
277	Observing the colloidal stability of iron oxide nanoparticles in situ. *Nanoscale*, **2019**, 11, 13098-13107	7.7	17
276	Selective Methane Oxidation to Methanol on Cu-Oxo Dimers Stabilized by Zirconia Nodes of an NU-1000 Metal-Organic Framework. *Journal of the American Chemical Society*, **2019**, 141, 9292-9304	16.4	66
275	A Bismuth Metal-Organic Framework as a Contrast Agent for X-ray Computed Tomography.. *ACS Applied Bio Materials*, **2019**, 2, 1197-1203	4.1	40

274	Making Compressive Sensing Accessible in Scientific Imaging. *Microscopy and Microanalysis*, **2019**, 25, 1684-1685	0.5	
273	Magnetism and transport in transparent high-mobility BaSnO3 films doped with La, Pr, Nd, and Gd. *Physical Review Materials*, **2019**, 3,	3.2	6
272	Liquid Cell Transmission Electron Microscopy Sheds Light on The Mechanism of Palladium Electrodeposition. *Langmuir*, **2019**, 35, 862-869	4	17
271	Subsampled STEM-ptychography. *Applied Physics Letters*, **2018**, 113, 033104	3.4	20
270	Directional Statistics of Preferential Orientations of Two Shapes in Their Aggregate and Its Application to Nanoparticle Aggregation. *Technometrics*, **2018**, 60, 332-344	1.4	5
269	Implementing Sparse Sub-Sampling Methods for Low-Dose/High Speed STEM. *Microscopy and Microanalysis*, **2018**, 24, 1952-1953	0.5	1
268	The Merits of In situ Environmental STEM for the Study of Complex Oxide Catalysts at Work. *Microscopy and Microanalysis*, **2018**, 24, 238-239	0.5	1
267	Nanoparticle Immobilization for Controllable Experiments in Liquid-Cell Transmission Electron Microscopy. *ACS Applied Materials & Interfaces*, **2018**, 10, 22801-22808	9.5	13
266	Quantitative Mapping of Nanoscale Chemical Dynamics in Sub-Sampled Operando (S)TEM Images using Spatio-Temporal Analytics. *ChemCatChem*, **2018**, 10, 3115-3120	5.2	1
265	DRILL Interface Makes Ion Soft Landing Broadly Accessible for Energy Science and Applications. *Batteries and Supercaps*, **2018**, 1, 97-101	5.6	11
264	Bottom-up construction of a superstructure in a porous uranium-organic crystal. *Science*, **2017**, 356, 624-627	33.3	223
263	Adsorption of a Catalytically Accessible Polyoxometalate in a Mesoporous Channel-type Metal□Organic Framework. *Chemistry of Materials*, **2017**, 29, 5174-5181	9.6	102
262	The Role of Gas in Determining Image Quality and Resolution During In Situ Scanning Transmission Electron Microscopy Experiments. *ChemCatChem*, **2017**, 9, 3478-3485	5.2	5
261	Direct Visualization of Aggregate Morphology and Dynamics in a Model Soil Organic□Mineral System. *Environmental Science and Technology Letters*, **2017**, 4, 186-191	11	15
260	Single-Site Osmium Catalysts on MgO: Reactivity and Catalysis of CO Oxidation. *Chemistry - A European Journal*, **2017**, 23, 2532-2536	4.8	14
259	Imaging Electrochemical Processes in Li Batteries by Operando STEM. *Microscopy and Microanalysis*, **2017**, 23, 1970-1971	0.5	1
258	Reliable Event Detection for Incomplete and Streaming (S)TEM Images. *Microscopy and Microanalysis*, **2017**, 23, 158-159	0.5	
257	Probing Dynamic Phase Transformations of Hydrated Iron Oxide Nanoparticles with in situ Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2017**, 23, 858-859	0.5	

256	Cryo-STEM Tomography with Inpainting. *Microscopy and Microanalysis*, **2017**, 23, 806-807	0.5	
255	The Effect of Gas on Image Quality and Resolution in In situ Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2017**, 23, 916-917	0.5	1
254	Formation of Oxygen Radical Sites on MoVNbTeOx by Cooperative Electron Redistribution. *Journal of the American Chemical Society*, **2017**, 139, 12342-12345	16.4	29
253	Implementing Sub-sampling Methods for Low-Dose (Scanning) Transmission Electron Microscopy (S/TEM). *Microscopy and Microanalysis*, **2017**, 23, 82-83	0.5	2
252	Quantifying Feature Uncertainty in Sub-sampled Low-dose (S)TEM Images. *Microscopy and Microanalysis*, **2017**, 23, 160-161	0.5	
251	Bridging Zirconia Nodes within a Metal-Organic Framework via Catalytic Ni-Hydroxo Clusters to Form Heterobimetallic Nanowires. *Journal of the American Chemical Society*, **2017**, 139, 10410-10418	16.4	64
250	Microstructure investigations of Yb- and Bi-doped Mg2Si prepared from metal hydrides for thermoelectric applications. *Journal of Solid State Chemistry*, **2017**, 245, 152-159	3.3	15
249	Resolution Versus Error for Computational Electron Microscopy. *Microscopy and Microanalysis*, **2017**, 23, 88-89	0.5	
248	Phase Imaging: A Compressive Sensing Approach. *Microscopy and Microanalysis*, **2017**, 23, 94-95	0.5	0
247	Acquisition of STEM Images by Adaptive Compressive Sensing. *Microscopy and Microanalysis*, **2017**, 23, 96-97	0.5	1
246	Controlling the Reaction Process in Operando STEM by Pixel Sub-Sampling. *Microscopy and Microanalysis*, **2017**, 23, 98-99	0.5	1
245	Compressive Classification for TEM-EELS. *Microscopy and Microanalysis*, **2017**, 23, 108-109	0.5	1
244	Digital Super-Resolution in EELS. *Microscopy and Microanalysis*, **2017**, 23, 146-147	0.5	
243	Less is More: Bigger Data from Compressive Measurements. *Microscopy and Microanalysis*, **2017**, 23, 166-167	0.5	1
242	Manipulation and Immobilization of Nanostructures for In-situ STEM. *Microscopy and Microanalysis*, **2017**, 23, 942-943	0.5	1
241	Imaging Dynamic Processes in Liquids: Application for Batteries **2016**, 680-681		
240	Dose-rate controlled energy dispersive x-ray spectroscopic mapping of the metallic components in a biohybrid nanosystem. *Semiconductor Science and Technology*, **2016**, 31, 084002	1.8	
239	Chemical Stabilization and Electrochemical Destabilization of the Iron Keggin Ion in Water. *Inorganic Chemistry*, **2016**, 55, 11078-11088	5.1	27

238	Rational design of efficient electrode-electrolyte interfaces for solid-state energy storage using ion soft landing. *Nature Communications*, **2016**, 7, 11399	17.4	66
237	The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. *Scientific Reports*, **2016**, 6, 34267	4.9	53
236	A Compressive Sensing based acquisition design for quantitative ultra-low dose high-resolution imaging and spectroscopy in the STEM **2016**, 324-325		1
235	Compressive Sensing in Microscopy: a Tutorial. *Microscopy and Microanalysis*, **2016**, 22, 2084-2085	0.5	1
234	The Mechanisms for Preferential Attachment of Nanoparticles in Liquid Determined Using Liquid Cell Electron Microscopy, Machine Learning, and Molecular Dynamics. *Microscopy and Microanalysis*, **2016**, 22, 812-813	0.5	0
233	Understanding the Effect of Additives in Li-ion and Li-Sulfur Batteries by Operando ec- (S)TEM. *Microscopy and Microanalysis*, **2016**, 22, 22-23	0.5	5
232	Tracking Rh Atoms in Zeolite HY: First Steps of Metal Cluster Formation and Influence of Metal Nuclearity on Catalysis of Ethylene Hydrogenation and Ethylene Dimerization. *Journal of Physical Chemistry Letters*, **2016**, 7, 2537-43	6.4	31
231	Understanding the Role of Solvation Forces on the Preferential Attachment of Nanoparticles in Liquid. *ACS Nano*, **2016**, 10, 181-7	16.7	43
230	Rhodium pair-sites on magnesium oxide: Synthesis, characterization, and catalysis of ethylene hydrogenation. *Journal of Catalysis*, **2016**, 338, 12-20	7.3	20
229	Gaining Control over Radiolytic Synthesis of Uniform Sub-3-nanometer Palladium Nanoparticles: Use of Aromatic Liquids in the Electron Microscope. *Langmuir*, **2016**, 32, 1468-77	4	41
228	Investigation of the Mechanism of Mg Insertion in Birnessite in Nonaqueous and Aqueous Rechargeable Mg-Ion Batteries. *Chemistry of Materials*, **2016**, 28, 534-542	9.6	226
227	Compressive STEM-EELS. *Microscopy and Microanalysis*, **2016**, 22, 560-561	0.5	5
226	The Determining Role of Solution Chemistry in Radiation-Induced Nanoparticles Synthesis in the STEM **2016**, 31-32		
225	Molecular Storage of Mg Ions with Vanadium Oxide Nanoclusters. *Advanced Functional Materials*, **2016**, 26, 3446-3453	15.6	50
224	Atomic-Scale Determination of Active Facets on the MoVTeNb Oxide M1 Phase and Their Intrinsic Catalytic Activity for Ethane Oxidative Dehydrogenation. *Angewandte Chemie - International Edition* , **2016**, 55, 8873-7	16.4	47
223	Practical Implementation of Compressive Sensing for High Resolution STEM. *Microscopy and Microanalysis*, **2016**, 22, 558-559	0.5	7
222	Fabrication of electrocatalytic Ta nanoparticles by reactive sputtering and ion soft landing. *Journal of Chemical Physics*, **2016**, 145, 174701	3.9	8
221	Tuning interfacial exchange interactions via electronic reconstruction in transition-metal oxide heterostructures. *Applied Physics Letters*, **2016**, 109, 152401	3.4	17

220	Revealing the Working Active Sites of M1 phase for Ethane Oxidation. *Microscopy and Microanalysis*, **2016**, 22, 790-791	0.5	1
219	Advantages of MgAlOx over Al2O3 as a Support Material for Potassium-Based High-Temperature Lean NOx Traps. *ACS Catalysis*, **2015**, 5, 4680-4689	13.1	13
218	Imaging individual lanthanum atoms in zeolite Y by scanning transmission electron microscopy: Evidence of lanthanum pair sites. *Microporous and Mesoporous Materials*, **2015**, 213, 95-99	5.3	6
217	Using molecular dynamics to quantify the electrical double layer and examine the potential for its direct observation in the in-situ TEM. *Advanced Structural and Chemical Imaging*, **2015**, 1,	3.9	27
216	Agglomerative Sintering of an Atomically Dispersed Ir1/Zeolite Y Catalyst: Compelling Evidence Against Ostwald Ripening but for Bimolecular and Autocatalytic Agglomeration Catalyst Sintering Steps. *ACS Catalysis*, **2015**, 5, 3514-3527	13.1	47
215	Tip-enhanced Raman nanographs: mapping topography and local electric fields. *Nano Letters*, **2015**, 15, 2385-90	11.5	25
214	High Energy Density LithiumSulfur Batteries: Challenges of Thick Sulfur Cathodes. *Advanced Energy Materials*, **2015**, 5, 1402290	21.8	424
213	Minimum Cost Multi-Way Data Association for Optimizing Multitarget Tracking of Interacting Objects. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2015**, 37, 611-24	13.3	44
212	TEM Video Compressive Sensing. *Microscopy and Microanalysis*, **2015**, 21, 1583-1584	0.5	4
211	Applying compressive sensing to TEM video: a substantial frame rate increase on any camera. *Advanced Structural and Chemical Imaging*, **2015**, 1,	3.9	44
210	Interface Promoted Reversible Mg Insertion in Nanostructured Tin-Antimony Alloys. *Advanced Materials*, **2015**, 27, 6598-605	24	67
209	Distribution of Metal Cations in Ni-Mo-W Sulfide Catalysts. *ChemCatChem*, **2015**, 7, 3692-3704	5.2	15
208	Ex Situ and In Situ (S)TEM of Iron Oxide Nanoparticles Synthesized by Decomposition of an Organometallic Precursor. *Microscopy and Microanalysis*, **2015**, 21, 965-966	0.5	1
207	Applications of Bicrystallography: Revealing Generic Similarities in Coincidence Site Lattice Boundaries of all Holohedral Cubic Materials and Facilitating the Design of 3D Printed Models of such Grain Boundaries. *Microscopy and Microanalysis*, **2015**, 21, 1453-1454	0.5	
206	Observing the growth of metal-organic frameworks by in situ liquid cell transmission electron microscopy. *Journal of the American Chemical Society*, **2015**, 137, 7322-8	16.4	155
205	Synthesis of phase-pure and monodisperse iron oxide nanoparticles by thermal decomposition. *Nanoscale*, **2015**, 7, 11142-54	7.7	199
204	Microdomain Formation, Oxidation, and Cation Ordering in LaCa2Fe3O8+y. *Journal of the American Ceramic Society*, **2015**, 98, 2248-2254	3.8	5
203	Migration of Single Iridium Atoms and Tri-iridium Clusters on MgO Surfaces: Aberration-Corrected STEM Imaging and Ab Initio Calculations. *Journal of Physical Chemistry Letters*, **2015**, 6, 4675-9	6.4	10

202	Structural and Chemical Evolution of Li- and Mn-Rich Layered Cathode Material. *Chemistry of Materials*, **2015**, 27, 1381-1390	9.6	240
201	Realizing the full potential of insertion anodes for Mg-ion batteries through the nanostructuring of Sn. *Nano Letters*, **2015**, 15, 1177-82	11.5	70
200	In Situ Observation of Directed Nanoparticle Aggregation During the Synthesis of Ordered Nanoporous Metal in Soft Templates. *Chemistry of Materials*, **2014**, 26, 1426-1433	9.6	13
199	Direct visualization of initial SEI morphology and growth kinetics during lithium deposition by in situ electrochemical transmission electron microscopy. *Chemical Communications*, **2014**, 50, 2104-7	5.8	148
198	Direct observation of aggregative nanoparticle growth: kinetic modeling of the size distribution and growth rate. *Nano Letters*, **2014**, 14, 373-8	11.5	146
197	Dynamics of soft nanomaterials captured by transmission electron microscopy in liquid water. *Journal of the American Chemical Society*, **2014**, 136, 1162-5	16.4	81
196	The importance of nanometric passivating films on cathodes for Li-air batteries. *ACS Nano*, **2014**, 8, 1248-1693	13.7	116
195	Formation of interfacial layer and long-term cyclability of Li-O2 batteries. *ACS Applied Materials & Interfaces*, **2014**, 6, 14141-51	9.5	43
194	Iridium Complexes and Clusters in Dealuminated Zeolite HY: Distribution between Crystalline and Impurity Amorphous Regions. *ACS Catalysis*, **2014**, 4, 2662-2666	13.1	12
193	A single-site platinum CO oxidation catalyst in zeolite KLTL: microscopic and spectroscopic determination of the locations of the platinum atoms. *Angewandte Chemie - International Edition*, **2014**, 53, 8904-7	16.4	217
192	Segregation of Mn2+ Dopants as Interstitials in SrTiO3 Grain Boundaries. *Materials Research Letters* , **2014**, 2, 16-22	7.4	14
191	Probing the degradation mechanisms in electrolyte solutions for Li-ion batteries by in situ transmission electron microscopy. *Nano Letters*, **2014**, 14, 1293-9	11.5	119
190	In Situ Observation of Directed Nanoparticle Aggregation During the Synthesis of Ordered Nanoporous Metal in Soft Templates. *Microscopy and Microanalysis*, **2014**, 20, 1600-1601	0.5	0
189	Direct Observation of Li2O2 Nucleation and Growth with In-Situ Liquid ec-(S)TEM. *Microscopy and Microanalysis*, **2014**, 20, 1608-1609	0.5	
188	Direct Observation of Aggregative Nanoparticle Growth: Kinetic Modeling of the Size Distribution and Growth Rate. *Microscopy and Microanalysis*, **2014**, 20, 1612-1613	0.5	
187	In-Situ Liquid Transmission Electron Microscopy (TEM) for the analysis of Metal Organic Frameworks (MOFs). *Microscopy and Microanalysis*, **2014**, 20, 1614-1615	0.5	1
186	Direct Observation of Electrolyte Degradation Mechanisms in Li-Ion Batteries. *Microscopy and Microanalysis*, **2014**, 20, 1624-1625	0.5	
185	Implementing in situ Experiments in Liquids in the (Scanning) Transmission Electron Microscope ((S)TEM) and Dynamic TEM (DTEM). *Microscopy and Microanalysis*, **2014**, 20, 1648-1649	0.5	1

184	Quantitative Z-contrast Imaging in Scanning Transmission Electron Microscopy of Zeolite-supported Metal Clusters and Single-metal-atom Complexes With Single-Atom Sensitivity. *Microscopy and Microanalysis*, **2014**, 20, 148-149	0.5	1
183	Mesoscale origin of the enhanced cycling-stability of the Si-conductive polymer anode for Li-ion batteries. *Scientific Reports*, **2014**, 4, 3684	4.9	40
182	Ex-situ and In-situ Analysis of MoVTeNb Oxide by Aberration-Corrected Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2014**, 20, 108-109	0.5	
181	Electric field enhancement in a self-assembled 2D array of silver nanospheres. *Journal of Chemical Physics*, **2014**, 141, 214308	3.9	18
180	The potential for Bayesian compressive sensing to significantly reduce electron dose in high-resolution STEM images. *Microscopy (Oxford, England)*, **2014**, 63, 41-51	1.3	111
179	Symmetries of migration-related segments of all [001] coincidence site lattice tilt boundaries in (001) projection for all holohedral cubic materials. *Crystal Research and Technology*, **2014**, 49, 708-720	1.3	5
178	A Single-Site Platinum CO Oxidation Catalyst in Zeolite KLTL: Microscopic and Spectroscopic Determination of the Locations of the Platinum Atoms. *Angewandte Chemie*, **2014**, 126, 9050-9053	3.6	45
177	Complete Water Splitting with Multi-Component Catalysts: Proposed Mechanism of Charge Transport in NiOx Loaded SrTiO3 Photocatalyst for Complete Water Splitting. *Springer Theses*, **2014** , 53-66	0.1	1
176	In-situ electrochemical transmission electron microscopy for battery research. *Microscopy and Microanalysis*, **2014**, 20, 484-92	0.5	39
175	The Hydrogen Evolution Reaction: Water Reduction Photocatalysis Improved Niobate Nanoscroll Photocatalysts for Partial Water Splitting. *Springer Theses*, **2014**, 9-25	0.1	1
174	The Oxygen Evolution Reaction: Water Oxidation Photocatalysis Photocatalytic Water Oxidation with Suspended alpha-Fe2O3 Particles Effects of Nanoscaling. *Springer Theses*, **2014**, 27-37	0.1	
173	Overall Photocatalytic Water Splitting with Suspended NiO-SrTiO3 Nanocrystals. *Springer Theses*, **2014**, 39-51	0.1	
172	Quantitative Z-Contrast Imaging of Supported Metal Complexes and Clusters A Gateway to Understanding Catalysis on the Atomic Scale. *ChemCatChem*, **2013**, 5, 2673-2683	5.2	11
171	Probing the failure mechanism of SnO2 nanowires for sodium-ion batteries. *Nano Letters*, **2013**, 13, 5203-11	11.5	244
170	Demonstration of an electrochemical liquid cell for operando transmission electron microscopy observation of the lithiation/delithiation behavior of Si nanowire battery anodes. *Nano Letters*, **2013**, 13, 6106-12	11.5	232
169	Enabling direct nanoscale observations of biological reactions with dynamic TEM. *Microscopy (Oxford, England)*, **2013**, 62, 147-56	1.3	24
168	Quantifying the low-energy limit and spectral resolution in valence electron energy loss spectroscopy. *Ultramicroscopy*, **2013**, 124, 130-8	3.1	13
167	Experimental procedures to mitigate electron beam induced artifacts during in situ fluid imaging of nanomaterials. *Ultramicroscopy*, **2013**, 127, 53-63	3.1	159

166	General schema for [001] tilt grain boundaries in dense packing cubic crystals. *Acta Materialia*, **2013**, 61, 3392-3398	8.4	10
165	Simulating realistic imaging conditions for in situ liquid microscopy. *Ultramicroscopy*, **2013**, 135, 36-42	3.1	15
164	Antisite defects in La0.7Sr0.3MnO3 and La0.7Sr0.3FeO3. *Applied Physics Letters*, **2013**, 102, 151911	3.4	6
163	Formation of the spinel phase in the layered composite cathode used in Li-ion batteries. *ACS Nano*, **2013**, 7, 760-7	16.7	656
162	Nanoscale Phase Separation, Cation Ordering, and Surface Chemistry in Pristine Li1.2Ni0.2Mn0.6O2 for Li-Ion Batteries. *Chemistry of Materials*, **2013**, 25, 2319-2326	9.6	157
161	Zeolite-supported bimetallic catalyst: controlling selectivity of rhodium complexes by nearby iridium complexes. *Catalysis Science and Technology*, **2013**, 3, 2199	5.5	9
160	Cation uniformity and magnetic properties of La0.7Sr0.3Mn0.5Fe0.5O3 thin films. *Journal of Magnetism and Magnetic Materials*, **2013**, 325, 69-74	2.8	4
159	Catalytic Consequences of Particle Size and Chloride Promotion in the Ring-Opening of Cyclopentane on Pt/Al2O3. *ACS Catalysis*, **2013**, 3, 328-338	13.1	16
158	Synthesis and characterization of P-doped amorphous and nanocrystalline Si. *Polyhedron*, **2013**, 58, 156-161	2.7	11
157	Ultralow contact resistance at an epitaxial metal/oxide heterojunction through interstitial site doping. *Advanced Materials*, **2013**, 25, 4001-5	24	21
156	A (S)TEM gas cell holder with localized laser heating for in situ experiments. *Microscopy and Microanalysis*, **2013**, 19, 470-8	0.5	23
155	Three-dimensional structural analysis of MgO-supported osmium clusters by electron microscopy with single-atom sensitivity. *Angewandte Chemie - International Edition*, **2013**, 52, 5262-5	16.4	12
154	Three-Dimensional Structural Analysis of MgO-Supported Osmium Clusters by Electron Microscopy with Single-Atom Sensitivity. *Angewandte Chemie*, **2013**, 125, 5370-5373	3.6	2
153	Nanoscale strontium titanate photocatalysts for overall water splitting. *ACS Nano*, **2012**, 6, 7420-6	16.7	204
152	Synthesis and characterization of Mg2Si/Si nanocomposites prepared from MgH2 and silicon, and their thermoelectric properties. *Journal of Materials Chemistry*, **2012**, 22, 24805		48
151	Photocatalytic Water Splitting with Suspended Calcium Niobium Oxides: Why Nanoscale is Better than Bulk □A Kinetic Analysis. *Journal of Physical Chemistry C*, **2012**, 116, 3161-3170	3.8	79
150	Selective Hydrodeoxygenation of Guaiacol Catalyzed by Platinum Supported on Magnesium Oxide. *Catalysis Letters*, **2012**, 142, 1190-1196	2.8	92
149	Sinter-Resistant Catalysts: Supported Iridium Nanoclusters with Intrinsically Limited Sizes. *Catalysis Letters*, **2012**, 142, 1445-1451	2.8	17

148	Atomically Resolved Site-Isolated Catalyst on MgO: Mononuclear Osmium Dicarbonyls formed from Os3(CO)12. *Journal of Physical Chemistry Letters*, **2012**, 3, 1865-71	6.4	19
147	Direct in situ observation of nanoparticle synthesis in a liquid crystal surfactant template. *ACS Nano* , **2012**, 6, 3589-96	16.7	84
146	Direct in situ determination of the mechanisms controlling nanoparticle nucleation and growth. *ACS Nano*, **2012**, 6, 8599-610	16.7	322
145	Mononuclear Zeolite-Supported Iridium: Kinetic, Spectroscopic, Electron Microscopic, and Size-Selective Poisoning Evidence for an Atomically Dispersed True Catalyst at 22 °C. *ACS Catalysis*, **2012**, 2, 1947-1957	13.1	45
144	Site-Isolated Molecular Iridium Complex Catalyst Supported in the 1-Dimensional Channels of Zeolite HSSZ-53: Characterization by Spectroscopy and Aberration-Corrected Scanning Transmission Electron Microscopy. *ACS Catalysis*, **2012**, 2, 1002-1012	13.1	18
143	Visualizing macromolecular complexes with in situ liquid scanning transmission electron microscopy. *Micron*, **2012**, 43, 1085-90	2.3	79
142	Overall photocatalytic water splitting with NiOx□SrTiO3 □a revised mechanism. *Energy and Environmental Science*, **2012**, 5, 9543	35.4	184
141	Conflicting roles of nickel in controlling cathode performance in lithium ion batteries. *Nano Letters*, **2012**, 12, 5186-91	11.5	199
140	Dynamic Transmission Electron Microscopy **2012**, 1		1
139	Hydrogen activation and metal hydride formation trigger cluster formation from supported iridium complexes. *Journal of the American Chemical Society*, **2012**, 134, 5022-5	16.4	40
138	Single-Crystal Tungsten Oxide Nanosheets: Photochemical Water Oxidation in the Quantum Confinement Regime. *Chemistry of Materials*, **2012**, 24, 698-704	9.6	145
137	Oxide- and zeolite-supported isostructural Ir(C2H4)2 complexes: molecular-level observations of electronic effects of supports as ligands. *Langmuir*, **2012**, 28, 12806-15	4	35
136	Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY. *Angewandte Chemie*, **2012**, 124, 5944-5948	3.6	33
135	A □smart□Catalyst: Sinter-Resistant Supported Iridium Clusters Visualized with Electron Microscopy. *Angewandte Chemie*, **2012**, 124, 6031-6036	3.6	15
134	R□ktitelbild: Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY (Angew. Chem. 24/2012). *Angewandte Chemie*, **2012**, 124, 6120-6120	3.6	
133	Imaging isolated gold atom catalytic sites in zeolite NaY. *Angewandte Chemie - International Edition*, **2012**, 51, 5842-6	16.4	140
132	A "smart" catalyst: sinter-resistant supported iridium clusters visualized with electron microscopy. *Angewandte Chemie - International Edition*, **2012**, 51, 5929-34	16.4	88
131	Back Cover: Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY (Angew. Chem. Int. Ed. 24/2012). *Angewandte Chemie - International Edition*, **2012**, 51, 6016-6016	16.4	

130	Strain relaxation defects in perovskite oxide superlattices. *Journal of Materials Research*, **2012**, 27, 1436-1444	2.5	6
129	Tuning magnetic and transport properties through strain engineering in La0.7Sr0.3MnO3/La0.5Sr0.5TiO3 superlattices. *Journal of Applied Physics*, **2012**, 111, 084906	2.5	14
128	Yttria-stabilized zirconia crystallization in Al2O3/YSZ multilayers. *Journal of Materials Research*, **2012**, 27, 939-943	2.5	5
127	Atomic-scale imaging and spectroscopy for in situ liquid scanning transmission electron microscopy. *Microscopy and Microanalysis*, **2012**, 18, 621-7	0.5	104
126	Photocatalytic water oxidation with suspended alpha-Fe2O3 particles-effects of nanoscaling. *Energy and Environmental Science*, **2011**, 4, 4270	35.4	187
125	Low-Loss EELS in the STEM **2011**, 659-688		4
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