# Nigel D Browning

## List of Publications by Citations

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|---|---|---|---|
| 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 | Comet 81P/Wild 2 under a microscope. *Science*, **2006**, 314, 1711-6 | 33.3 | 739 |
| 290 | Formation of the spinel phase in the layered composite cathode used in Li-ion batteries. *ACS Nano*, **2013**, 7, 760-7 | 16.7 | 656 |
| 289 | High Energy Density Lithium-Sulfur Batteries: Challenges of Thick Sulfur Cathodes. *Advanced Energy Materials*, **2015**, 5, 1402290 | 21.8 | 424 |
| 288 | Direct in situ determination of the mechanisms controlling nanoparticle nucleation and growth. *ACS Nano*, **2012**, 6, 8599-610 | 16.7 | 322 |
| 287 | Controlled growth of nanoparticles from solution with in situ liquid transmission electron microscopy. *Nano Letters*, **2011**, 11, 2809-13 | 11.5 | 289 |
| 286 | Imaging of transient structures using nanosecond in situ TEM. *Science*, **2008**, 321, 1472-5 | 33.3 | 250 |
| 285 | Probing the failure mechanism of SnO2 nanowires for sodium-ion batteries. *Nano Letters*, **2013**, 13, 5203-11 | 11.5 | 244 |
| 284 | Structural and Chemical Evolution of Li- and Mn-Rich Layered Cathode Material. *Chemistry of Materials*, **2015**, 27, 1381-1390 | 9.6 | 240 |
| 283 | 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 |
| 282 | 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 |
| 281 | Bottom-up construction of a superstructure in a porous uranium-organic crystal. *Science*, **2017**, 356, 624-627 | 33.3 | 223 |
| 280 | 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 |
| 279 | Photocatalytic water oxidation with nonsensitized IrO2 nanocrystals under visible and UV light. *Journal of the American Chemical Society*, **2011**, 133, 7264-7 | 16.4 | 213 |
| 278 | Nanoscale strontium titanate photocatalysts for overall water splitting. *ACS Nano*, **2012**, 6, 7420-6 | 16.7 | 204 |
| 277 | Synthesis of phase-pure and monodisperse iron oxide nanoparticles by thermal decomposition. *Nanoscale*, **2015**, 7, 11142-54 | 7.7 | 199 |
| 276 | Conflicting roles of nickel in controlling cathode performance in lithium ion batteries. *Nano Letters*, **2012**, 12, 5186-91 | 11.5 | 199 |
| 275 | Growth Mechanisms and Oxidation Resistance of Gold-Coated Iron Nanoparticles. *Chemistry of Materials*, **2005**, 17, 3181-3186 | 9.6 | 195 |

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| 274 | Segregation Effects at Grain Boundaries in Fluorite-Structured Ceramics. *Journal of the American Ceramic Society*, **2002**, 85, 2359-2363 | 3.8 | 195 |
| 273 | Photocatalytic water oxidation with suspended alpha-Fe2O3 particles-effects of nanoscaling. *Energy and Environmental Science*, **2011**, 4, 4270 | 35.4 | 187 |
| 272 | Overall photocatalytic water splitting with NiOx/SrTiO3 a revised mechanism. *Energy and Environmental Science*, **2012**, 5, 9543 | 35.4 | 184 |
| 271 | Comparison of comet 81P/Wild 2 dust with interplanetary dust from comets. *Science*, **2008**, 319, 447-50 | 33.3 | 180 |
| 270 | Nonstoichiometry and the electrical activity of grain boundaries in SrTiO3. *Physical Review Letters*, **2001**, 86, 4056-9 | 7.4 | 165 |
| 269 | Experimental procedures to mitigate electron beam induced artifacts during in situ fluid imaging of nanomaterials. *Ultramicroscopy*, **2013**, 127, 53-63 | 3.1 | 159 |
| 268 | 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 |
| 267 | 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 |
| 266 | Direct imaging of single metal atoms and clusters in the pores of dealuminated HY zeolite. *Nature Nanotechnology*, **2010**, 5, 506-10 | 28.7 | 151 |
| 265 | 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 |
| 264 | Direct observation of aggregative nanoparticle growth: kinetic modeling of the size distribution and growth rate. *Nano Letters*, **2014**, 14, 373-8 | 11.5 | 146 |
| 263 | Evolution of Physical and Photocatalytic Properties in the Layered Titanates A2Ti4O9 (A = K, H) and in Nanosheets Derived by Chemical Exfoliation. *Chemistry of Materials*, **2010**, 22, 1220-1228 | 9.6 | 146 |
| 262 | Single-Crystal Tungsten Oxide Nanosheets: Photochemical Water Oxidation in the Quantum Confinement Regime. *Chemistry of Materials*, **2012**, 24, 698-704 | 9.6 | 145 |
| 261 | Imaging isolated gold atom catalytic sites in zeolite NaY. *Angewandte Chemie - International Edition*, **2012**, 51, 5842-6 | 16.4 | 140 |
| 260 | 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 |
| 259 | Plasmonic enhanced emissions from cubic NaYF(4):Yb: Er/Tm nanophosphors. *Chemistry of Materials*, **2011**, 23, 2987-2993 | 9.6 | 118 |
| 258 | Supported molecular iridium catalysts: resolving effects of metal nuclearity and supports as ligands. *Journal of the American Chemical Society*, **2011**, 133, 16186-95 | 16.4 | 117 |
| 257 | First demonstration of CdSe as a photocatalyst for hydrogen evolution from water under UV and visible light. *Chemical Communications*, **2008**, 2206-8 | 5.8 | 117 |

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| 256 | The importance of nanometric passivating films on cathodes for Li-air batteries. *ACS Nano*, **2014**, 8, 12483693 | 13.7 | 116 |
| 255 | 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 |
| 254 | Atomic-scale imaging and spectroscopy for in situ liquid scanning transmission electron microscopy. *Microscopy and Microanalysis*, **2012**, 18, 621-7 | 0.5 | 104 |
| 253 | Adsorption of a Catalytically Accessible Polyoxometalate in a Mesoporous Channel-type Metal□Organic Framework. *Chemistry of Materials*, **2017**, 29, 5174-5181 | 9.6 | 102 |
| 252 | A site-isolated mononuclear iridium complex catalyst supported on MgO: Characterization by spectroscopy and aberration-corrected scanning transmission electron microscopy. *Journal of Catalysis*, **2010**, 269, 318-328 | 7.3 | 98 |
| 251 | Diffusion mechanisms of native point defects in rutile TiO2: Ab initio total-energy calculations. *Physical Review B*, **2007**, 75, | 3.3 | 96 |
| 250 | High-resolution low-dose scanning transmission electron microscopy. *Journal of Electron Microscopy*, **2010**, 59, 103-12 | | 95 |
| 249 | Nanosecond time-resolved investigations using the in situ of dynamic transmission electron microscope (DTEM). *Ultramicroscopy*, **2008**, 108, 1441-9 | 3.1 | 94 |
| 248 | Selective Hydrodeoxygenation of Guaiacol Catalyzed by Platinum Supported on Magnesium Oxide. *Catalysis Letters*, **2012**, 142, 1190-1196 | 2.8 | 92 |
| 247 | A "smart" catalyst: sinter-resistant supported iridium clusters visualized with electron microscopy. *Angewandte Chemie - International Edition*, **2012**, 51, 5929-34 | 16.4 | 88 |
| 246 | Adsorption and diffusion of Pt and Au on the stoichiometric and reduced TiO2 rutile (110) surfaces. *Physical Review B*, **2005**, 72, | 3.3 | 88 |
| 245 | Active and Stable Embedded [email□protected]2 Catalysts for Preferential Oxidation of CO. *Chemistry of Materials*, **2010**, 22, 4335-4345 | 9.6 | 85 |
| 244 | Practical considerations for high spatial and temporal resolution dynamic transmission electron microscopy. *Ultramicroscopy*, **2007**, 107, 356-67 | 3.1 | 85 |
| 243 | Direct in situ observation of nanoparticle synthesis in a liquid crystal surfactant template. *ACS Nano* , **2012**, 6, 3589-96 | 16.7 | 84 |
| 242 | K4Nb6O17-derived photocatalysts for hydrogen evolution from water: Nanoscrolls versus nanosheets. *Journal of Solid State Chemistry*, **2008**, 181, 1678-1683 | 3.3 | 84 |
| 241 | Valence electron energy-loss spectroscopy in monochromated scanning transmission electron microscopy. *Ultramicroscopy*, **2005**, 104, 176-92 | 3.1 | 84 |
| 240 | 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 |
| 239 | 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 |

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| 238 | Visualizing macromolecular complexes with in situ liquid scanning transmission electron microscopy. *Micron*, **2012**, 43, 1085-90 | 2.3 | 79 |
| 237 | Femtosecond ligand/core dynamics of microwave-assisted synthesized silicon quantum dots in aqueous solution. *Journal of the American Chemical Society*, **2011**, 133, 20664-7 | 16.4 | 75 |
| 236 | Towards an integrated materials characterization toolbox. *Journal of Materials Research*, **2011**, 26, 1341-1383 | 2.3 | 75 |
| 235 | The impact of surface and retardation losses on valence electron energy-loss spectroscopy. *Ultramicroscopy*, **2008**, 108, 84-99 | 3.1 | 75 |
| 234 | 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 |
| 233 | Towards full-structure determination of bimetallic nanoparticles with an aberration-corrected electron microscope. *Nature Nanotechnology*, **2010**, 5, 843-7 | 28.7 | 69 |
| 232 | Interface Promoted Reversible Mg Insertion in Nanostructured Tin-Antimony Alloys. *Advanced Materials*, **2015**, 27, 6598-605 | 24 | 67 |
| 231 | Nanoclusters of gold on a high-area support: almost uniform nanoclusters imaged by scanning transmission electron microscopy. *ACS Nano*, **2009**, 3, 3691-5 | 16.7 | 67 |
| 230 | 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 |
| 229 | Rational design of efficient electrode-electrolyte interfaces for solid-state energy storage using ion soft landing. *Nature Communications*, **2016**, 7, 11399 | 17.4 | 66 |
| 228 | 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 |
| 227 | An astronomical 2175 angstrom feature in interplanetary dust particles. *Science*, **2005**, 307, 244-7 | 33.3 | 64 |
| 226 | Hydrogen encapsulation in a silicon clathrate type I structure: Na5.5(H2)2.15Si46: synthesis and characterization. *Journal of the American Chemical Society*, **2007**, 129, 13857-62 | 16.4 | 61 |
| 225 | Ferroelasticity in mixed conducting LaCoO3 based perovskites: a ferroelastic phase transition. *Acta Materialia*, **2003**, 51, 5063-5071 | 8.4 | 59 |
| 224 | Atomic Resolution Analysis of the Defect Chemistry and Microdomain Structure of Brownmillerite-Type Strontium Cobaltite. *Journal of the American Ceramic Society*, **2004**, 85, 969-976 | 3.8 | 57 |
| 223 | The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. *Scientific Reports*, **2016**, 6, 34267 | 4.9 | 53 |
| 222 | Atomic and electronic structure of mixed and partial dislocations in GaN. *Physical Review Letters*, **2005**, 94, 025504 | 7.4 | 53 |
| 221 | Direct evidence for cation non-stoichiometry and cottrell atmospheres around dislocation cores in functional oxide interfaces. *Advanced Materials*, **2010**, 22, 2430-4 | 24 | 52 |

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| 220 | Co:CdS Diluted Magnetic Semiconductor Nanoparticles: Radiation Synthesis, Dopant□Defect Complex Formation, and Unexpected Magnetism. *Chemistry of Materials*, **2008**, 20, 440-446 | 9.6 | 51 |
| 219 | Quantification of the size-dependent energy gap of individual CdSe quantum dots by valence electron energy-loss spectroscopy. *Ultramicroscopy*, **2007**, 107, 267-73 | 3.1 | 51 |
| 218 | Molecular Storage of Mg Ions with Vanadium Oxide Nanoclusters. *Advanced Functional Materials*, **2016**, 26, 3446-3453 | 15.6 | 50 |
| 217 | Room temperature synthesis of surface-functionalised boron nanoparticles. *Chemical Communications*, **2007**, 580-2 | 5.8 | 49 |
| 216 | Synthesis and characterization of Mg2Si/Si nanocomposites prepared from MgH2 and silicon, and their thermoelectric properties. *Journal of Materials Chemistry*, **2012**, 22, 24805 | | 48 |
| 215 | 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 |
| 214 | 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 |
| 213 | 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 |
| 212 | 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 |
| 211 | Growth and structure of PbVO3 thin films. *Applied Physics Letters*, **2007**, 90, 062903 | 3.4 | 45 |
| 210 | 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 |
| 209 | Applying compressive sensing to TEM video: a substantial frame rate increase on any camera. *Advanced Structural and Chemical Imaging*, **2015**, 1, | 3.9 | 44 |
| 208 | Tracking iridium atoms with electron microscopy: first steps of metal nanocluster formation in one-dimensional zeolite channels. *Nano Letters*, **2011**, 11, 5537-41 | 11.5 | 44 |
| 207 | Understanding the Role of Solvation Forces on the Preferential Attachment of Nanoparticles in Liquid. *ACS Nano*, **2016**, 10, 181-7 | 16.7 | 43 |
| 206 | Formation of interfacial layer and long-term cyclability of Li-O□batteries. *ACS Applied Materials & Interfaces*, **2014**, 6, 14141-51 | 9.5 | 43 |
| 205 | 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 |
| 204 | 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 |
| 203 | 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 |

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| 202 | 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 |
| 201 | In-situ electrochemical transmission electron microscopy for battery research. *Microscopy and Microanalysis*, **2014**, 20, 484-92 | 0.5 | 39 |
| 200 | Charge separation in a niobate nanosheet photocatalyst studied with photochemical labeling. *Langmuir*, **2010**, 26, 7254-61 | 4 | 39 |
| 199 | Site-isolated iridium complexes on MgO powder: individual Ir atoms imaged by scanning transmission electron microscopy. *Chemical Communications*, **2009**, 4657-9 | 5.8 | 37 |
| 198 | Decomposition Pathway of Ammonia Borane on the Surface of Nano-BN. *Journal of Physical Chemistry C*, **2010**, 114, 13935-13941 | 3.8 | 36 |
| 197 | Low-dose aberration corrected cryo-electron microscopy of organic specimens. *Ultramicroscopy*, **2008**, 108, 1636-44 | 3.1 | 36 |
| 196 | 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 |
| 195 | Improved niobate nanoscroll photocatalysts for partial water splitting. *ChemSusChem*, **2011**, 4, 185-90 | 8.3 | 35 |
| 194 | Anomalous Electrical Conductivity of Nanosheaves of CeO2. *Chemistry of Materials*, **2009**, 21, 1182-1186 | 9.6 | 35 |
| 193 | Imaging Isolated Gold Atom Catalytic Sites in Zeolite NaY. *Angewandte Chemie*, **2012**, 124, 5944-5948 | 3.6 | 33 |
| 192 | Structural variability of edge dislocations in a SrTiO3 low-angle [001] tilt grain boundary. *Journal of Materials Research*, **2009**, 24, 2191-2199 | 2.5 | 33 |
| 191 | Design and synthesis of highly active MoVTeNb-oxides for ethane oxidative dehydrogenation. *Nature Communications*, **2019**, 10, 4012 | 17.4 | 32 |
| 190 | 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 |
| 189 | Prospects for electron imaging with ultrafast time resolution. *Applied Physics Letters*, **2007**, 90, 114101 | 3.4 | 31 |
| 188 | Formation of Oxygen Radical Sites on MoVNbTeOx by Cooperative Electron Redistribution. *Journal of the American Chemical Society*, **2017**, 139, 12342-12345 | 16.4 | 29 |
| 187 | The origin of refractory minerals in comet 81P/Wild 2. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 7150-7161 | 5.5 | 29 |
| 186 | Preferential growth of Pt on rutile TiO2. *Physical Review B*, **2006**, 73, | 3.3 | 29 |
| 185 | Ab initio structural energetics of β-Si3N4 surfaces. *Physical Review B*, **2005**, 72, | 3.3 | 29 |

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| 184 | Chemical Inhomogeneity and Mixed-State Ferromagnetism in Diluted Magnetic Semiconductor Co:TiO2. *Chemistry of Materials*, **2008**, 20, 1344-1352 | 9.6 | 28 |
| 183 | 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 |
| 182 | Chemical Stabilization and Electrochemical Destabilization of the Iron Keggin Ion in Water. *Inorganic Chemistry*, **2016**, 55, 11078-11088 | 5.1 | 27 |
| 181 | Three-dimensionally intercrossing Mn3O4 nanowires. *Acta Materialia*, **2008**, 56, 3516-3522 | 8.4 | 27 |
| 180 | Intact and fragmented triosmium clusters on MgO: characterization by X-ray absorption spectroscopy and high-resolution transmission electron microscopy. *Journal of Physical Chemistry B*, **2005**, 109, 12738-41 | 3.4 | 26 |
| 179 | Tip-enhanced Raman nanographs: mapping topography and local electric fields. *Nano Letters*, **2015**, 15, 2385-90 | 11.5 | 25 |
| 178 | Synthesis and characterization of K(8-x)(H2)ySi46. *Inorganic Chemistry*, **2010**, 49, 815-22 | 5.1 | 25 |
| 177 | Enabling direct nanoscale observations of biological reactions with dynamic TEM. *Microscopy (Oxford, England)*, **2013**, 62, 147-56 | 1.3 | 24 |
| 176 | Imaging Gold Atoms in Site-Isolated MgO-Supported Mononuclear Gold Complexes. *Journal of Physical Chemistry C*, **2009**, 113, 16847-16849 | 3.8 | 24 |
| 175 | Atomic resolution of the structure of a metal-support interface: triosmium clusters on MgO(110). *Angewandte Chemie - International Edition*, **2010**, 49, 10089-92 | 16.4 | 24 |
| 174 | Prospects for analyzing the electronic properties in nanoscale systems by VEELS. *Ultramicroscopy*, **2008**, 108, 270-6 | 3.1 | 24 |
| 173 | A (S)TEM gas cell holder with localized laser heating for in situ experiments. *Microscopy and Microanalysis*, **2013**, 19, 470-8 | 0.5 | 23 |
| 172 | Quantifying transient states in materials with the dynamic transmission electron microscope. *Journal of Electron Microscopy*, **2010**, 59 Suppl 1, S67-74 | | 23 |
| 171 | Probing 3-D Structural Distortions and Coordination Changes at SrTiO3 Grain Boundaries Using Electron Energy Loss Spectroscopy. *Journal of the American Ceramic Society*, **1997**, 80, 781-785 | 3.8 | 22 |
| 170 | Ultralow contact resistance at an epitaxial metal/oxide heterojunction through interstitial site doping. *Advanced Materials*, **2013**, 25, 4001-5 | 24 | 21 |
| 169 | Ir6 Clusters Compartmentalized in the Supercages of Zeolite NaY: Direct Imaging of a Catalyst with Aberration-Corrected Scanning Transmission Electron Microscopy. *ACS Catalysis*, **2011**, 1, 1613-1620 | 13.1 | 21 |
| 168 | Strongly driven crystallization processes in a metallic glass. *Applied Physics Letters*, **2009**, 94, 184101 | 3.4 | 21 |
| 167 | Automatic recovery of missing amplitudes and phases in tilt-limited electron crystallography of two-dimensional crystals. *Physical Review E*, **2011**, 84, 011916 | 2.4 | 21 |

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| 166 | Determination of Nanocluster Sizes from Dark-Field Scanning Transmission Electron Microscopy Images. *Journal of Physical Chemistry C*, **2008**, 112, 1759-1763 | 3.8 | 21 |
| 165 | Pyromorphite growth on lead-sulfide surfaces. *Environmental Science & Technology*, **2004**, 38, 5529-34 | 10.3 | 21 |
| 164 | Rhodium pair-sites on magnesium oxide: Synthesis, characterization, and catalysis of ethylene hydrogenation. *Journal of Catalysis*, **2016**, 338, 12-20 | 7.3 | 20 |
| 163 | Subsampled STEM-ptychography. *Applied Physics Letters*, **2018**, 113, 033104 | 3.4 | 20 |
| 162 | Measuring the hole-state anisotropy in MgB2 by electron energy-loss spectroscopy. *Physical Review B*, **2003**, 67, | 3.3 | 20 |
| 161 | Examining Elemental Surface Enrichment in Ultrafine Aerosol Particles Using Analytical Scanning Transmission Electron Microscopy. *Aerosol Science and Technology*, **2004**, 38, 365-381 | 3.4 | 20 |
| 160 | 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 |
| 159 | Electric field enhancement in a self-assembled 2D array of silver nanospheres. *Journal of Chemical Physics*, **2014**, 141, 214308 | 3.9 | 18 |
| 158 | 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 |
| 157 | Direct formation of mesoporous coesite single crystals from periodic mesoporous silica at extreme pressure. *Angewandte Chemie - International Edition*, **2010**, 49, 4301-5 | 16.4 | 18 |
| 156 | Observing the colloidal stability of iron oxide nanoparticles in situ. *Nanoscale*, **2019**, 11, 13098-13107 | 7.7 | 17 |
| 155 | Sinter-Resistant Catalysts: Supported Iridium Nanoclusters with Intrinsically Limited Sizes. *Catalysis Letters*, **2012**, 142, 1445-1451 | 2.8 | 17 |
| 154 | Investigation of the effect of varying growth pauses on the structural and optical properties of InAs/GaAs quantum dot heterostructures. *Superlattices and Microstructures*, **2009**, 46, 611-617 | 2.8 | 17 |
| 153 | DC photoelectron gun parameters for ultrafast electron microscopy. *Microscopy and Microanalysis*, **2009**, 15, 298-313 | 0.5 | 17 |
| 152 | Direct atomic scale analysis of the distribution of Cu valence states in Cu/Al2O3 catalysts. *Applied Catalysis B: Environmental*, **2002**, 38, 271-281 | 21.8 | 17 |
| 151 | Minimising damage in high resolution scanning transmission electron microscope images of nanoscale structures and processes. *Nanoscale*, **2020**, 12, 21248-21254 | 7.7 | 17 |
| 150 | Tuning interfacial exchange interactions via electronic reconstruction in transition-metal oxide heterostructures. *Applied Physics Letters*, **2016**, 109, 152401 | 3.4 | 17 |
| 149 | Liquid Cell Transmission Electron Microscopy Sheds Light on The Mechanism of Palladium Electrodeposition. *Langmuir*, **2019**, 35, 862-869 | 4 | 17 |

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| 148 | 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 |
| 147 | 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 |
| 146 | Simulating realistic imaging conditions for in situ liquid microscopy. *Ultramicroscopy*, **2013**, 135, 36-42 | 3.1 | 15 |
| 145 | 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 |
| 144 | Distribution of Metal Cations in Ni-Mo-W Sulfide Catalysts. *ChemCatChem*, **2015**, 7, 3692-3704 | 5.2 | 15 |
| 143 | A "Smart" Catalyst: Sinter-Resistant Supported Iridium Clusters Visualized with Electron Microscopy. *Angewandte Chemie*, **2012**, 124, 6031-6036 | 3.6 | 15 |
| 142 | Laser-based in situ techniques: novel methods for generating extreme conditions in TEM samples. *Microscopy Research and Technique*, **2009**, 72, 122-30 | 2.8 | 15 |
| 141 | Analysis of extraterrestrial particles using monochromated electron energy-loss spectroscopy. *Micron*, **2005**, 36, 369-79 | 2.3 | 15 |
| 140 | Single-Site Osmium Catalysts on MgO: Reactivity and Catalysis of CO Oxidation. *Chemistry - A European Journal*, **2017**, 23, 2532-2536 | 4.8 | 14 |
| 139 | Segregation of Mn2+ Dopants as Interstitials in SrTiO3 Grain Boundaries. *Materials Research Letters* , **2014**, 2, 16-22 | 7.4 | 14 |
| 138 | Atomic and electronic structures of the SrVO3-LaAlO3 interface. *Journal of Applied Physics*, **2011**, 110, 046104 | 2.5 | 14 |
| 137 | Point defect characterization in HAADF-STEM images using multivariate statistical analysis. *Ultramicroscopy*, **2011**, 111, 251-7 | 3.1 | 14 |
| 136 | Gold Cluster Diffusion Kinetics on Stoichiometric and Reduced Surfaces of Rutile TiO2(110). *Journal of Physical Chemistry C*, **2011**, 115, 11611-11617 | 3.8 | 14 |
| 135 | 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 |
| 134 | In situ laser synthesis of Si nanowires in the dynamic TEM. *Small*, **2008**, 4, 2187-90 | 11 | 14 |
| 133 | Advantages of MgAlOx over γ-Al2O3 as a Support Material for Potassium-Based High-Temperature Lean NOx Traps. *ACS Catalysis*, **2015**, 5, 4680-4689 | 13.1 | 13 |
| 132 | Nanoparticle Immobilization for Controllable Experiments in Liquid-Cell Transmission Electron Microscopy. *ACS Applied Materials & Interfaces*, **2018**, 10, 22801-22808 | 9.5 | 13 |
| 131 | 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 |

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