Juan-Carlos Idrobo

List of Publications by Year in Descending Order

222 papers	16,412 citations	55 h-index	126 g-index
234 ext. papers	18,297 ext. citations	9.4 avg, IF	6.54 L-index

#	Paper	IF	Citations
222	Atomically sharp domain walls in an antiferromagnet.. *Science Advances*, **2022**, 8, eabn3535	14.3	2
221	Experimental observation of localized interfacial phonon modes. *Nature Communications*, **2021**, 12, 6901	17.4	7
220	Imaging Infrared Plasmon Hybridization in Doped Semiconductor Nanocrystal Dimers. *Journal of Physical Chemistry Letters*, **2021**, 12, 10270-10276	6.4	2
219	Revealing the Brønsted-Evans-Polanyi relation in halide-activated fast MoS growth toward millimeter-sized 2D crystals. *Science Advances*, **2021**, 7, eabj3274	14.3	1
218	Direct visualization of anionic electrons in an electride reveals inhomogeneities. *Science Advances*, **2021**, 7,	14.3	7
217	Local electronic structure variation resulting in Li 'filament' formation within solid electrolytes. *Nature Materials*, **2021**, 20, 1485-1490	27	54
216	Electron effective mass determination across a β-(Al0.2Ga0.8)2O3//β-Ga2O3 interface by Kramers-Kronig analysis. *Microscopy and Microanalysis*, **2021**, 27, 1168-1169	0.5	
215	Exploring electronic coupling of optical and phonon excitations at the nanoscale. *Microscopy and Microanalysis*, **2021**, 27, 1202-1203	0.5	0
214	Van der Waals Nanowires with Continuously Variable Interlayer Twist and Twist Homojunctions. *Advanced Functional Materials*, **2021**, 31, 2006412	15.6	8
213	Isotope-Resolved Electron Energy Loss Spectroscopy in a Monochromated Scanning Transmission Electron Microscope. *Microscopy Today*, **2021**, 29, 36-41	0.4	1
212	Scalable synthesis of nanoporous atomically thin graphene membranes for dialysis and molecular separations facile isopropanol-assisted hot lamination. *Nanoscale*, **2021**, 13, 2825-2837	7.7	5
211	High spatial and energy resolution electron energy loss spectroscopy of the magnetic and electric excitations in plasmonic nanorod oligomers. *Optics Express*, **2021**, 29, 4661-4671	3.3	3
210	Electron energy loss spectroscopy of sub-10 nm 2D MoS2 crystals. *Microscopy and Microanalysis*, **2021**, 27, 1210-1211	0.5	
209	Metal-Nitrogen-Carbon Cluster-Decorated Titanium Carbide is a Durable and Inexpensive Oxygen Reduction Reaction Electrocatalyst. *ChemSusChem*, **2021**, 14, 4680-4689	8.3	
208	Theory of magnon diffuse scattering in scanning transmission electron microscopy. *Physical Review B*, **2021**, 104,	3.3	1
207	Atomic Electron Tomography: Past, Present and Future. *Microscopy and Microanalysis*, **2020**, 26, 652-654	0.5	1
206	2D Electrets of Ultrathin MoO with Apparent Piezoelectricity. *Advanced Materials*, **2020**, 32, e2000006	24	22

205	Vapor-Liquid-Solid Growth and Optoelectronics of Gallium Sulfide van der Waals Nanowires. *ACS Nano*, **2020**, 14, 6117-6126	16.7	13
204	Correlating the three-dimensional atomic defects and electronic properties of two-dimensional transition metal dichalcogenides. *Nature Materials*, **2020**, 19, 867-873	27	58
203	Facile Size-Selective Defect Sealing in Large-Area Atomically Thin Graphene Membranes for Sub-Nanometer Scale Separations. *Nano Letters*, **2020**, 20, 5951-5959	11.5	19
202	Local strain-driven migration of oxygen vacancies to apical sites in YBaCuO. *Nanoscale*, **2020**, 12, 5922-5931	7.7	6
201	Infrared plasmonics: STEM-EELS characterization of Fabry-Pérot resonance damping in gold nanowires. *Physical Review B*, **2020**, 101,	3.3	9
200	Chemical Mapping of Unstained DNA Origami Using STEM/EDS and Graphene Supports. *ACS Applied Nano Materials*, **2020**, 3, 1123-1130	5.6	3
199	Radiation-induced segregation in a ceramic. *Nature Materials*, **2020**, 19, 992-998	27	22
198	Electroreduction of Carbon Dioxide into Selective Hydrocarbons at Low Overpotential Using Isomorphic Atomic Substitution in Copper Oxide. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 179-189	8.3	3
197	Leaning on a ledge. *Nature Materials*, **2020**, 19, 1260-1261	27	
196	Plasmon Hybridization in Nanorhombus Assemblies. *Journal of Physical Chemistry C*, **2020**, 124, 27009-27016	3.6	1
195	Synthesis and optoelectronic properties of ultrathin Ga2O3 nanowires. *Journal of Materials Chemistry C*, **2020**, 8, 11555-11562	7.1	6
194	Electron Beam Infrared Nano-Ellipsometry of Individual Indium Tin Oxide Nanocrystals. *Nano Letters*, **2020**, 20, 7987-7994	11.5	3
193	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. *Angewandte Chemie - International Edition*, **2020**, 59, 1384-1396	16.4	12
192	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. *Angewandte Chemie*, **2020**, 132, 1400-1412	3.6	3
191	Direct Observation of Infrared Plasmonic Fano Antiresonances by a Nanoscale Electron Probe. *Physical Review Letters*, **2019**, 123, 177401	7.4	17
190	Defect-Induced Electronic Structure Changes in Cesium Lead Halide Nanocrystals. *Microscopy and Microanalysis*, **2019**, 25, 660-661	0.5	
189	Prospect for detecting magnetism of a single impurity atom using electron magnetic chiral dichroism. *Physical Review B*, **2019**, 100,	3.3	4
188	Etching of transition metal dichalcogenide monolayers into nanoribbon arrays. *Nanoscale Horizons*, **2019**, 4, 689-696	10.8	7

187	Strain-Induced Structural Deformation Study of 2D MoxW(1-x) S2. *Advanced Materials Interfaces*, **2019**, 6, 1801262	4.6	9
186	Identification of site-specific isotopic labels by vibrational spectroscopy in the electron microscope. *Science*, **2019**, 363, 525-528	33.3	87
185	Controlling the Infrared Dielectric Function through Atomic-Scale Heterostructures. *ACS Nano*, **2019**, 13, 6730-6741	16.7	20
184	Atomic-Scale Spectroscopic Imaging of the Extreme-UV Optical Response of B- and N-Doped Graphene. *Advanced Functional Materials*, **2019**, 29, 1901819	15.6	6
183	Engineering single-atom dynamics with electron irradiation. *Science Advances*, **2019**, 5, eaav2252	14.3	39
182	Emergence of shallow energy levels in B-doped Q-carbon: A high-temperature superconductor. *Acta Materialia*, **2019**, 174, 153-159	8.4	7
181	High-K dielectric sulfur-selenium alloys. *Science Advances*, **2019**, 5, eaau9785	14.3	8
180	Spectroscopic signatures of edge states in hexagonal boron nitride. *Nano Research*, **2019**, 12, 1663-1667	10	6
179	Syntheses of Colloidal F:In2O3 Cubes: Fluorine-Induced Faceting and Infrared Plasmonic Response. *Chemistry of Materials*, **2019**, 31, 2661-2676	9.6	31
178	Spatially and spectrally resolved orbital angular momentum interactions in plasmonic vortex generators. *Light: Science and Applications*, **2019**, 8, 33	16.7	15
177	Low Contact Barrier in 2H/1T′ MoTe In-Plane Heterostructure Synthesized by Chemical Vapor Deposition. *ACS Applied Materials & Interfaces*, **2019**, 11, 12777-12785	9.5	38
176	Two-Dimensional Gold Quantum Dots with Tunable Bandgaps. *ACS Nano*, **2019**, 13, 4347-4353	16.7	13
175	In-Situ Characterization of 2-Dim Materials at High Energy and Spatial Resolution. *Microscopy and Microanalysis*, **2019**, 25, 17-18	0.5	
174	Determining the 3D Atomic Coordinates and Crystal Defects in 2D Materials with Picometer Precision. *Microscopy and Microanalysis*, **2019**, 25, 404-405	0.5	
173	EELS in STEM: the Swiss Army Knife of Spectroscopy. *Microscopy and Microanalysis*, **2019**, 25, 620-621	0.5	
172	Elevated temperature microstructural stability in cast AlCuMnZr alloys through solute segregation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 765, 138279	5.3	49
171	Self-Assembly of Atomically Thin Chiral Copper Heterostructures Templated by Black Phosphorus. *Advanced Functional Materials*, **2019**, 29, 1903120	15.6	7
170	Two-Dimensional Lateral Epitaxy of 2H (MoSe)-1T′ (ReSe) Phases. *Nano Letters*, **2019**, 19, 6338-6345	11.5	18

169	Damage-Free Nanoscale Isotopic Analysis of Biological Materials with Vibrational Electron Spectroscopy. *Microscopy and Microanalysis*, **2019**, 25, 1088-1089	0.5	
168	Electron-Beam Manipulation of Lattice Impurities in Graphene and Single-Walled Carbon Nanotubes. *Microscopy and Microanalysis*, **2019**, 25, 938-939	0.5	
167	Single-Crystalline □GaS Nanotubes via Epitaxial Conversion of GaAs Nanowires. *Nano Letters*, **2019**, 19, 8903-8910	11.5	6
166	Focused Electron Beam Induced Deposition Synthesis of 3D Photonic and Magnetic Nanoresonators. *ACS Applied Nano Materials*, **2019**, 2, 8075-8082	5.6	9
165	Atomic-resolution visualization and doping effects of complex structures in intercalated bilayer graphene. *Physical Review Materials*, **2019**, 3,	3.2	5
164	Direct observation of apical oxygen vacancies in the high-temperature superconductor YBa2Cu3O7□. *Physical Review Materials*, **2019**, 3,	3.2	11
163	Graphene Optoelectronics: Atomic-Scale Spectroscopic Imaging of the Extreme-UV Optical Response of B- and N-Doped Graphene (Adv. Funct. Mater. 52/2019). *Advanced Functional Materials* , **2019**, 29, 1970356	15.6	
162	Progress in ultrahigh energy resolution EELS. *Ultramicroscopy*, **2019**, 203, 60-67	3.1	64
161	Atomic Structure and Electrical Activity of Grain Boundaries and Ruddlesden-Popper Faults in Cesium Lead Bromide Perovskite. *Advanced Materials*, **2019**, 31, e1805047	24	47
160	Structural Phase Transformation in Strained Monolayer MoWSe Alloy. *ACS Nano*, **2018**, 12, 3468-3476	16.7	38
159	Temperature Measurement by a Nanoscale Electron Probe Using Energy Gain and Loss Spectroscopy. *Physical Review Letters*, **2018**, 120, 095901	7.4	61
158	Exploring the capabilities of monochromated electron energy loss spectroscopy in the infrared regime. *Scientific Reports*, **2018**, 8, 5637	4.9	44
157	Deformation Mechanisms of Vertically Stacked WS /MoS Heterostructures: The Role of Interfaces. *ACS Nano*, **2018**, 12, 4036-4044	16.7	35
156	Local low rank denoising for enhanced atomic resolution imaging. *Ultramicroscopy*, **2018**, 187, 34-42	3.1	12
155	Probing the localization of magnetic dichroism by atomic-size astigmatic and vortex electron beams. *Scientific Reports*, **2018**, 8, 4019	4.9	14
154	Vibrational Spectroscopy of Water with High Spatial Resolution. *Advanced Materials*, **2018**, 30, e1802702	24	32
153	Atomic-Scale Identification of Planar Defects in Cesium Lead Bromide Perovskite Nanocrystals. *Microscopy and Microanalysis*, **2018**, 24, 100-101	0.5	2
152	Towards Nanometer-Scale Three-Dimensional Magnetic Studies with Atomic Size Electron Vortex Beams. *Microscopy and Microanalysis*, **2018**, 24, 918-919	0.5	1

151	Novel EELS Experiments in the Newly Opened Monochromated Regime. *Microscopy and Microanalysis*, **2018**, 24, 418-419	0.5	
150	Image and Spectrum Image Denoising under the local low Rank Assumption. *Microscopy and Microanalysis*, **2018**, 24, 578-579	0.5	1
149	Atomic-resolution electric field measurements with a universal detector. *Microscopy and Microanalysis*, **2018**, 24, 114-115	0.5	1
148	Probing the Proximity of Magnetic Dichroic Signal in Electron Magnetics Circular Dichroism by Atomic Sized Electron Vortex Beam and Four Fold Astigmatic Beams.. *Microscopy and Microanalysis*, **2018**, 24, 922-923	0.5	0
147	Sub-Ångstrom electric field measurements on a universal detector in a scanning transmission electron microscope. *Advanced Structural and Chemical Imaging*, **2018**, 4, 10	3.9	53
146	Quaternary Alloys: Thermally Induced 2D Alloy-Heterostructure Transformation in Quaternary Alloys (Adv. Mater. 45/2018). *Advanced Materials*, **2018**, 30, 1870344	24	1
145	Proposal for a three-dimensional magnetic measurement method with nanometer-scale depth resolution. *Physical Review B*, **2018**, 98,	3.3	4
144	Towards topological spectroscopy in the electron microscope with atomic resolution. *Microscopy and Microanalysis*, **2018**, 24, 926-927	0.5	0
143	Vibrational Spectroscopy of Liquid Water by Monochromated Aloof EELS. *Microscopy and Microanalysis*, **2018**, 24, 422-423	0.5	
142	Significantly Enhanced Emission Stability of CsPbBr3 Nanocrystals via Chemically Induced Fusion Growth for Optoelectronic Devices. *ACS Applied Nano Materials*, **2018**, 1, 6091-6098	5.6	30
141	Telluride-Based Atomically Thin Layers of Ternary Two-Dimensional Transition Metal Dichalcogenide Alloys. *Chemistry of Materials*, **2018**, 30, 7262-7268	9.6	23
140	Facile MoS2 Growth on Reduced Graphene-Oxide via Liquid Phase Method. *Frontiers in Materials*, **2018**, 5,	4	4
139	Thermally Induced 2D Alloy-Heterostructure Transformation in Quaternary Alloys. *Advanced Materials*, **2018**, 30, e1804218	24	19
138	Theoretical and Experimental Insight into the Mechanism for Spontaneous Vertical Growth of ReS2 Nanosheets. *Advanced Functional Materials*, **2018**, 28, 1801286	15.6	23
137	Cobalt-Molybdenum Single-Layered Nanocatalysts Decorated on Carbon Nanotubes and the Influence of Preparation Conditions on Their Hydrodesulfurization Catalytic Activity. *Energy & Fuels*, **2018**, 32, 7820-7826	4.1	7
136	A short story of imaging and spectroscopy of two-dimensional materials by scanning transmission electron microscopy. *Ultramicroscopy*, **2017**, 180, 156-162	3.1	10
135	Molecular Sieving Across Centimeter-Scale Single-Layer Nanoporous Graphene Membranes. *ACS Nano*, **2017**, 11, 5726-5736	16.7	82
134	Edge-Controlled Growth and Etching of Two-Dimensional GaSe Monolayers. *Journal of the American Chemical Society*, **2017**, 139, 482-491	16.4	50

133	Re Doping in 2D Transition Metal Dichalcogenides as a New Route to Tailor Structural Phases and Induced Magnetism. *Advanced Materials*, **2017**, 29, 1703754	24	130
132	Water and Solute Transport Governed by Tunable Pore Size Distributions in Nanoporous Graphene Membranes. *ACS Nano*, **2017**, 11, 10042-10052	16.7	65
131	Directly Identifying Phase Segregation in 2D Quaternary Alloys. *Microscopy and Microanalysis*, **2017**, 23, 1438-1439	0.5	1
130	Revealing the Bonding of Nitrogen Impurities in Monolayer Graphene. *Microscopy and Microanalysis* , **2017**, 23, 1750-1751	0.5	1
129	Phase Segregation Behavior of Two-Dimensional Transition Metal Dichalcogenide Binary Alloys Induced by Dissimilar Substitution. *Chemistry of Materials*, **2017**, 29, 7431-7439	9.6	22
128	2D Materials: Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap (Adv. Mater. 35/2017). *Advanced Materials*, **2017**, 29,	24	1
127	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. *Advanced Materials* , **2017**, 29, 1702457	24	124
126	Observing Nanoscale Orbital Angular Momentum in Plasmon Vortices with Cathodoluminescence. *Microscopy and Microanalysis*, **2017**, 23, 1694-1695	0.5	
125	Nanoporous Atomically Thin Graphene Membranes for Desalting and Dialysis Applications. *Advanced Materials*, **2017**, 29, 1700277	24	85
124	Acquisition and Fast Analysis of Multi-Dimensional STEM Data. *Microscopy and Microanalysis*, **2017**, 23, 168-169	0.5	
123	Near-Field Mid-Infrared Plasmonics in Complex Nanostructures with Monochromated Electron Energy Loss Spectroscopy. *Microscopy and Microanalysis*, **2017**, 23, 1532-1533	0.5	
122	Novel spectroscopy with atomic-size aberrated electron probes in stem **2016**, 986-987		
121	Polymerization of Acetonitrile via a Hydrogen Transfer Reaction from CH3 to CN under Extreme Conditions. *Angewandte Chemie - International Edition*, **2016**, 55, 12040-4	16.4	21
120	Transition-Metal Substitution Doping in Synthetic Atomically Thin Semiconductors. *Advanced Materials*, **2016**, 28, 9735-9743	24	145
119	Controllable growth of layered selenide and telluride heterostructures and superlattices using molecular beam epitaxy. *Journal of Materials Research*, **2016**, 31, 900-910	2.5	65
118	Aberrated electron probes for magnetic spectroscopy with atomic resolution: Theory and practical aspects. *Physical Review B*, **2016**, 93,	3.3	11
117	Isoelectronic Tungsten Doping in Monolayer MoSe for Carrier Type Modulation. *Advanced Materials* , **2016**, 28, 8240-8247	24	69
116	Vorticity in electron beams: Definition, properties, and its relationship with magnetism. *Physical Review B*, **2016**, 94,	3.3	2

115	Humidity sensing using vertically oriented arrays of ReS 2 nanosheets deposited on an interdigitated gold electrode. *2D Materials*, **2016**, 3, 045012	5.9	32
114	Signatures of distinct impurity configurations in atomic-resolution valence electron-energy-loss spectroscopy: Application to graphene. *Physical Review B*, **2016**, 94,	3.3	8
113	Detecting magnetic ordering with atomic size electron probes. *Advanced Structural and Chemical Imaging*, **2016**, 2,	3.9	32
112	Oxidative dehydrogenation of isobutane over vanadia catalysts supported by titania nanoshapes. *Catalysis Today*, **2016**, 263, 84-90	5.3	15
111	Low-Loss Imaging of Defect Structures in Two Dimensional Materials Using Aberration Corrected Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2016**, 22, 1410-1411	0.5	
110	Fast Aberration Measurement in Multi-Dimensional STEM. *Microscopy and Microanalysis*, **2016**, 22, 252-253	0.5	1
109	Mapping Magnetic Ordering With Aberrated Electron Probes in STEM. *Microscopy and Microanalysis* , **2016**, 22, 1676-1677	0.5	1
108	Single Atom Imaging and Spectroscopy of Impurities in 2D Materials. *Microscopy and Microanalysis*, **2016**, 22, 862-863	0.5	
107	Atomic and electronic structure of Ti substitution in Ca3Co4O9. *Journal of Applied Physics*, **2016**, 120, 205105	2.5	0
106	Vertically Oriented Arrays of ReS2 Nanosheets for Electrochemical Energy Storage and Electrocatalysis. *Nano Letters*, **2016**, 16, 3780-7	11.5	201
105	Persistent photoconductivity in two-dimensional Mo1−xWxSe2−MoSe2 van der Waals heterojunctions. *Journal of Materials Research*, **2016**, 31, 923-930	2.5	14
104	Van der Waals Epitaxial Growth of Two-Dimensional Single-Crystalline GaSe Domains on Graphene. *ACS Nano*, **2015**, 9, 8078-88	16.7	87
103	Nanofiltration across Defect-Sealed Nanoporous Monolayer Graphene. *Nano Letters*, **2015**, 15, 3254-60	11.5	229
102	Low-Frequency Raman Fingerprints of Two-Dimensional Metal Dichalcogenide Layer Stacking Configurations. *ACS Nano*, **2015**, 9, 6333-42	16.7	121
101	Heterogeneous sub-continuum ionic transport in statistically isolated graphene nanopores. *Nature Nanotechnology*, **2015**, 10, 1053-7	28.7	158
100	Mapping Magnetic Properties of Materials At Atomic Spatial Resolution. *Microscopy and Microanalysis*, **2015**, 21, 499-500	0.5	2
99	Low-loss electron energy loss spectroscopy: An atomic-resolution complement to optical spectroscopies and application to graphene. *Physical Review B*, **2015**, 92,	3.3	24
98	The quest for inorganic fullerenes. *Journal of Applied Physics*, **2015**, 118, 134302	2.5	3

97	Intergranular Nanostructure Effects on Strength and Toughness of Si3N4. *Journal of the American Ceramic Society*, **2015**, 98, 1650-1657	3.8	14
96	Ptychographic Imaging in an Aberration Corrected STEM. *Microscopy and Microanalysis*, **2015**, 21, 1219-1220	2.5	4
95	Ultrahigh photo-responsivity and detectivity in multilayer InSe nanosheets phototransistors with broadband response. *Journal of Materials Chemistry C*, **2015**, 3, 7022-7028	7.1	162
94	The observation of square ice in graphene questioned. *Nature*, **2015**, 528, E1-2	50.4	80
93	Structural and superconducting features of Tl-1223 prepared at ambient pressure. *Superconductor Science and Technology*, **2015**, 28, 115006	3.1	2
92	Revealing the preferred interlayer orientations and stackings of two-dimensional bilayer gallium selenide crystals. *Angewandte Chemie - International Edition*, **2015**, 54, 2712-7	16.4	37
91	Controlled vapor phase growth of single crystalline, two-dimensional GaSe crystals with high photoresponse. *Scientific Reports*, **2014**, 4, 5497	4.9	194
90	Selective ionic transport through tunable subnanometer pores in single-layer graphene membranes. *Nano Letters*, **2014**, 14, 1234-41	11.5	569
89	p-type doping of MoS2 thin films using Nb. *Applied Physics Letters*, **2014**, 104, 092104	3.4	236
88	Flexible metallic nanowires with self-adaptive contacts to semiconducting transition-metal dichalcogenide monolayers. *Nature Nanotechnology*, **2014**, 9, 436-42	28.7	185
87	Direct visualization of the Jahn-Teller effect coupled to Na ordering in Na5/8MnO2. *Nature Materials*, **2014**, 13, 586-92	27	191
86	Electronic and Quantum Transport Properties of Atomically Identified Si Point Defects in Graphene. *Journal of Physical Chemistry Letters*, **2014**, 5, 1711-8	6.4	12
85	Heteroepitaxial growth of two-dimensional hexagonal boron nitride templated by graphene edges. *Science*, **2014**, 343, 163-7	33.3	415
84	Interlaced crystals having a perfect Bravais lattice and complex chemical order revealed by real-space crystallography. *Nature Communications*, **2014**, 5, 5431	17.4	22
83	Orbital occupancy and charge doping in iron-based superconductors. *Advanced Materials*, **2014**, 26, 6193-8	19.4	12
82	Electrode architectures for high capacity multivalent conversion compounds: iron (II and III) fluoride. *RSC Advances*, **2014**, 4, 6730	3.7	32
81	Achieving atomic resolution magnetic dichroism by controlling the phase symmetry of an electron probe. *Physical Review Letters*, **2014**, 113, 145501	7.4	49
80	Atomic-scale characterization of oxide thin films gated by ionic liquid. *ACS Applied Materials & Interfaces*, **2014**, 6, 17018-23	9.5	9

79	High-performance Ag-Co alloy catalysts for electrochemical oxygen reduction. *Nature Chemistry*, **2014**, 6, 828-34	17.6	331
78	Highly sensitive phototransistors based on two-dimensional GaTe nanosheets with direct bandgap. *Nano Research*, **2014**, 7, 694-703	10	124
77	Thickness-dependent crossover from charge- to strain-mediated magnetoelectric coupling in ferromagnetic/piezoelectric oxide heterostructures. *ACS Nano*, **2014**, 8, 894-903	16.7	54
76	Evidence for superconductivity at Tc=12 K in oxygen-deficient MoO2−δ and properties of molybdenum arsenide and oxide binaries. *Physical Review B*, **2014**, 90,	3.3	7
75	Electronic excitations in graphene in the 1-50 eV range: the π and π + σ peaks are not plasmons. *Nano Letters*, **2014**, 14, 3827-31	11.5	58
74	Atomic Imaging and Spectroscopy of Two-Dimensional Materials. *Microscopy and Microanalysis*, **2014**, 20, 92-93	0.5	
73	Imaging and Spectroscopy of Graphene/Hexagonal Boron Nitride Lateral Heterostructure Interfaces. *Microscopy and Microanalysis*, **2014**, 20, 94-95	0.5	
72	Monochromatic STEM-EELS for Correlating the Atomic Structure and Optical Properties of Two-Dimensional Materials. *Microscopy and Microanalysis*, **2014**, 20, 96-97	0.5	3
71	Toward single mode, atomic size electron vortex beams. *Microscopy and Microanalysis*, **2014**, 20, 832-6	0.5	15
70	Engineered Porous Carbon for High Volumetric Methane Storage. *Adsorption Science and Technology*, **2014**, 32, 681-691	3.6	12
69	Modeling ellipsometry and electron energy loss spectroscopy of graphene **2014**,		1
68	Facet-dependent disorder in pristine high-voltage lithium-manganese-rich cathode material. *ACS Nano*, **2014**, 8, 12710-6	16.7	55
67	Simulation of Charge Transport in Disordered Assemblies of Metallic Nano-Islands: Application to Boron-Nitride Nanotubes Functionalized with Gold Quantum Dots. *Materials Research Society Symposia Proceedings*, **2014**, 1700, 17-28		3
66	Defect chemistry of phospho-olivine nanoparticles synthesized by a microwave-assisted solvothermal process. *Journal of Solid State Chemistry*, **2013**, 205, 197-204	3.3	8
65	Ultrathin high-temperature oxidation-resistant coatings of hexagonal boron nitride. *Nature Communications*, **2013**, 4, 2541	17.4	418
64	Long-range ferromagnetic ordering in manganese-doped two-dimensional dichalcogenides. *Physical Review B*, **2013**, 88,	3.3	234
63	Formation of Iron Oxyfluoride Phase on the Surface of Nano-Fe3O4 Conversion Compound for Electrochemical Energy Storage. *Journal of Physical Chemistry Letters*, **2013**, 4, 3798-3805	6.4	26
62	Temperature Dependence of Aliovalent-Vanadium Doping in LiFePO4 Cathodes. *Chemistry of Materials*, **2013**, 25, 768-781	9.6	75

61	In-plane heterostructures of graphene and hexagonal boron nitride with controlled domain sizes. *Nature Nanotechnology*, **2013**, 8, 119-24	28.7	687
60	Synthesis of patched or stacked graphene and hBN flakes: a route to hybrid structure discovery. *Nano Letters*, **2013**, 13, 933-41	11.5	162
59	Platinum-modulated cobalt nanocatalysts for low-temperature aqueous-phase Fischer-Tropsch synthesis. *Journal of the American Chemical Society*, **2013**, 135, 4149-58	16.4	98
58	Selenium segregation in femtosecond-laser hyperdoped silicon revealed by electron tomography. *Microscopy and Microanalysis*, **2013**, 19, 716-25	0.5	6
57	Highly responsive ultrathin GaS nanosheet photodetectors on rigid and flexible substrates. *Nano Letters*, **2013**, 13, 1649-54	11.5	573
56	Direct visualization of reversible dynamics in a Si□cluster embedded in a graphene pore. *Nature Communications*, **2013**, 4, 1650	17.4	87
55	AC/AB stacking boundaries in bilayer graphene. *Nano Letters*, **2013**, 13, 3262-8	11.5	112
54	Room-temperature tunneling behavior of boron nitride nanotubes functionalized with gold quantum dots. *Advanced Materials*, **2013**, 25, 4544-8	24	46
53	Intrinsic structural defects in monolayer molybdenum disulfide. *Nano Letters*, **2013**, 13, 2615-22	11.5	1418
52	Vapour phase growth and grain boundary structure of molybdenum disulphide atomic layers. *Nature Materials*, **2013**, 12, 754-9	27	1384
51	Effect of confined space reduction of graphite oxide followed by sulfur doping on oxygen reduction reaction in neutral electrolyte. *Journal of Materials Chemistry A*, **2013**, 1, 7059	13	52
50	Direct determination of the chemical bonding of individual impurities in graphene. *Physical Review Letters*, **2012**, 109, 206803	7.4	189
49	Localization of inelastic electron scattering in the low-loss energy regime. *Ultramicroscopy*, **2012**, 119, 51-6	3.1	32
48	Identification of light elements in silicon nitride by aberration-corrected scanning transmission electron microscopy. *Ultramicroscopy*, **2012**, 123, 74-9	3.1	2
47	Probing the electronic structure and optical response of a graphene quantum disk supported on monolayer graphene. *Journal of Physics Condensed Matter*, **2012**, 24, 314213	1.8	9
46	Selective molecular transport through intrinsic defects in a single layer of CVD graphene. *ACS Nano*, **2012**, 6, 10130-8	16.7	285
45	van der Waals epitaxy of MoS□layers using graphene as growth templates. *Nano Letters*, **2012**, 12, 2784-91	11.5	788
44	Atomically localized plasmon enhancement in monolayer graphene. *Nature Nanotechnology*, **2012**, 7, 161-5	28.7	173

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