B C Regan

List of Publications by Year
in descending order

71	1,382	516215	329751
papers	citations	16 h-index	37 g-index

73	73	73	2507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Carbon nanotubes as nanoscale mass conveyors. Nature, 2004, 428, 924-927.	13.7	291
2	Nanoscale temperature mapping in operating microelectronic devices. Science, 2015, 347, 629-632.	6.0	253
3	Nanofilament Formation and Regeneration During Cu/Al₂O₃ Resistive Memory Switching. Nano Letters, 2015, 15, 3983-3987.	4.5	123
4	Charged Nanoparticle Dynamics in Water Induced by Scanning Transmission Electron Microscopy. Langmuir, 2012, 28, 3695-3698.	1.6	107
5	Spin and the Honeycomb Lattice: Lessons from Graphene. Physical Review Letters, 2011, 106, 116803.	2.9	97
6	Chemical Vapor Deposition of Graphene on Copper from Methane, Ethane and Propane: Evidence for Bilayer Selectivity. Small, 2012, 8, 1415-1422.	5.2	93
7	In situ coherent diffractive imaging. Nature Communications, 2018, 9, 1826.	5.8	52
8	Imaging the life story of nanotube devices. Applied Physics Letters, 2005, 87, 083103.	1.5	50
9	Probing Planckâ€™s Law with Incandescent Light Emission from a Single Carbon Nanotube. Physical Review Letters, 2009, 102, 187402.	2.9	39
10	Dark-field transmission electron microscopy and the Debye-Waller factor of graphene. Physical Review B, 2013, 87, 045417.	1.1	35
11	STEM Imaging with Beam-Induced Hole and Secondary Electron Currents. Physical Review Applied, 2018, 10, .	1.5	29
12	Polarized light emission from individual incandescent carbon nanotubes. Physical Review B, 2011, 83, .	1.1	24
13	Tree-level electron-photon interactions in graphene. Physical Review B, 2010, 81, .	1.1	23
14	Electron beam-induced current imaging with two-angstrom resolution. Ultramicroscopy, 2019, 207, 112852.	0.8	23
15	Intercalation events visualized in single microcrystals of graphite. Nature Communications, 2017, 8, 1969.	5.8	21
16	Imaging interfacial electrical transport in grapheneâ€“MoS2 heterostructures with electron-beam-induced-currents. Applied Physics Letters, 2015, 107, 223104.	1.5	18
17	Irreversibility at macromolecular scales in the flake graphite of the lithium-ion battery anode. Journal of Power Sources, 2019, 436, 226841.	4.0	16
18	Electron-Transparent Thermoelectric Coolers Demonstrated with Nanoparticle and Condensation Thermometry. ACS Nano, 2020, 14, 11510-11517.	7.3	11

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19	Imaging Dielectric Breakdown in Valence Change Memory. Advanced Functional Materials, 2022, 32, 2102313.	7.8	10
20	Single-color pyrometry of individual incandescent multiwalled carbon nanotubes. Physical Review B, 2011, 84, .	1.1	9
21	In Situ Transmission Electron Microscopy of the Electrochemical Intercalation of Graphite in Concentrated Sulfuric Acid. Microscopy and Microanalysis, 2014, 20, 1528-1529.	0.2	9
22	Measuring nanoscale thermal gradients in suspended MoS2 with STEM-EELS. Applied Physics Letters, 2019, 115, .	1.5	9
23	Visualizing the Electron Wind Force in the Elastic Regime. Nano Letters, 2021, 21, 10172-10177.	4.5	8
24	In Situ STEM of Ag and Cu Conducting Bridge Formation through Al2O3 in Nanoscale Resistive Memory Devices. Microscopy and Microanalysis, 2014, 20, 1550-1551.	0.2	3
25	Secondary Electron Contrast in STEM Electron Beam-Induced Current (EBIC): a Path Towards Mapping Electronic Structure. Microscopy and Microanalysis, 2018, 24, 1846-1847.	0.2	3
26	STEM Video of Electronically-Driven Metal-Insulator Transitions in Nanoscale NbO 2 Devices. Microscopy and Microanalysis, 2016, 22, 1254-1255.	0.2	2
27	In Situ Optical Microscopy of the Electrochemical Intercalation of Lithium into Single Crystal Graphite. Microscopy and Microanalysis, 2017, 23, 1982-1983.	0.2	2
28	Adjusting the STEM Sample Holder Potential for Improved EBIC Contrast. Microscopy and Microanalysis, 2019, 25, 2354-2355.	0.2	2
29	STEM of a Single Crystal Lithium Ion Battery Anode during Electrochemical Cycling. Microscopy and Microanalysis, 2019, 25, 2060-2061.	0.2	2
30	Differential electron yield imaging with STXM. Ultramicroscopy, 2021, 222, 113198.	0.8	2
31	STEM EBIC to Study 2D Materials. Microscopy and Microanalysis, 2014, 20, 172-173.	0.2	1
32	In Situ Scanning Transmission Electron Microscopy (STEM) of Individual Electrochemical Intercalation Events in Graphite. Microscopy and Microanalysis, 2015, 21, 1193-1194.	0.2	1
33	Aluminum Nanoparticles as Fiducials for Nanoscale Temperature Measurements. Microscopy and Microanalysis, 2016, 22, 830-831.	0.2	1
34	Aloof Beam Plasmons in Silver Nanoparticles. Microscopy and Microanalysis, 2016, 22, 1642-1643.	0.2	1
35	Temperature Dependence of the Silicon Nitride Volume Plasmon. Microscopy and Microanalysis, 2016, 22, 1574-1575.	0.2	1
36	In Situ Video Observations of the Lithiation of Single Microcrystal Graphite. Microscopy and Microanalysis, 2016, 22, 1384-1385.	0.2	1

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37	STEM EBIC Mapping of the Metal-Insulator Transition in Thin-film NbO₂. Microscopy and Microanalysis, 2017, 23, 1428-1429.	0.2	1
38	Scanning TEM EBIC Imaging of Resistive Memory Switching Processes. Microscopy and Microanalysis, 2018, 24, 1806-1807.	0.2	1
39	Secondary-Electron Electron-Beam-Induced Current Measurements at Lattice Resolution. Microscopy and Microanalysis, 2019, 25, 1656-1657.	0.2	1
40	Mean Angular Deviation Minimization To Determine Lattice Parameters in Transmission Kikuchi Diffraction. Microscopy and Microanalysis, 2021, 27, 1608-1609.	0.2	1
41	Mapping Charge Recombination and the Effect of Point-Defect Insertion in GaAs Nanowire Heterojunctions. Physical Review Applied, 2021, 16, .	1.5	1
42	STEM EBIC Thermometry Calibration with PEET on Al Nanoparticles. Microscopy and Microanalysis, 2020, 26, 3124-3125.	0.2	1
43	Three-Dimensional Imaging of Dislocations and Defects in Materials at Atomic Resolution Using Electron Tomography. Microscopy and Microanalysis, 2014, 20, 1062-1063.	0.2	0
44	Nanobubbles on Electron Transparent Electrodes. Microscopy and Microanalysis, 2014, 20, 1610-1611.	0.2	0
45	Impedance matching of inverted conductors: Two-dimensional beam splitters with divergent gain. Physical Review A, 2015, 92, .	1.0	0
46	Time-Resolved Imaging of Electrochemical Switching in Nanoscale Resistive Memory Elements. Microscopy and Microanalysis, 2015, 21, 1911-1912.	0.2	0
47	Applications of Plasmon Energy Expansion Thermometry. Microscopy and Microanalysis, 2015, 21, 663-664.	0.2	0
48	Introduction to Plasmon Energy Expansion Thermometry. Microscopy and Microanalysis, 2015, 21, 1907-1908.	0.2	0
49	Nanoscale Mapping of Interfacial Electrical Transport in Graphene-MoS 2 Heterostructures with STEM-EBIC. Microscopy and Microanalysis, 2016, 22, 1552-1553.	0.2	0
50	Temperature Dependence of the Volume Plasmon in Silicon Nanoparticles. Microscopy and Microanalysis, 2016, 22, 296-297.	0.2	0
51	Asymmetric Temperature Profiles in Joule-Heated in Aluminum Nanowires. Microscopy and Microanalysis, 2016, 22, 772-773.	0.2	0
52	Plasmon Energy Mapping in Aluminum and Indium with Sub-Nanometer Resolution. Microscopy and Microanalysis, 2017, 23, 378-379.	0.2	0
53	Temperature-dependent signals in STEM Electron Beam-Induced Current (EBIC) Imaging. Microscopy and Microanalysis, 2017, 23, 1506-1507.	0.2	0
54	Detailed In Situ Observations of Electromigration in Aluminum Wires. Microscopy and Microanalysis, 2017, 23, 1450-1451.	0.2	0

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55	In Situ Observation of Cooling in a Bismuth Telluride and Bismuth-Antimony Telluride Nanoscale Heterojunction. Microscopy and Microanalysis, 2017, 23, 1996-1997.	0.2	0
56	Scanning TEM Electron Beam Induced Current Imaging in Water. Microscopy and Microanalysis, 2018, 24, 252-253.	0.2	0
57	Electromigration of Copper in Lithographically-Defined Aluminum Nanowires. Microscopy and Microanalysis, 2018, 24, 2190-2191.	0.2	0
58	Total Electron Yield Mapping of Electronic Device Features via Measurement of X-Ray Beam-Induced Currents. Microscopy and Microanalysis, 2019, 25, 256-257.	0.2	0
59	Mapping Electronic State Changes with STEM EBIC. Microscopy and Microanalysis, 2019, 25, 1396-1397.	0.2	0
60	Inducing Electrically-Active Defects in a Gallium Arsenide Nanowire with an Electron Beam. Microscopy and Microanalysis, 2019, 25, 1618-1619.	0.2	0
61	Mapping Ferroelectricity in Hafnia Thin Films with STEM EBIC. Microscopy and Microanalysis, 2019, 25, 1846-1847.	0.2	0
62	Correlation of Joule Heating and Electromigration-induced Mass Transport within Nanoscale Co Interconnects by In Situ STEM. Microscopy and Microanalysis, 2020, 26, 152-154.	0.2	0
63	Electrical Isolation Preserved by Plasma Focused Ion Beam TEM Sample Preparation and Verified with STEM SEEBIC Imaging. Microscopy and Microanalysis, 2020, 26, 194-195.	0.2	0
64	Nanoparticle Temperature Measurements for MEMS Heater Calibration. Microscopy and Microanalysis, 2020, 26, 1226-1227.	0.2	0
65	In Situ STEM Observations of Elemental Segregation in Phase Change Material GST Under Electrical and Thermal Stress. Microscopy and Microanalysis, 2021, 27, 168-169.	0.2	0
66	Modern STEM EBIC: Emerging Modes and Methods. Microscopy and Microanalysis, 2021, 27, 2350-2352.	0.2	0
67	Technique and Computational Improvements in 4D STEM and Cross-Correlation Analysis. Microscopy and Microanalysis, 2021, 27, 1540-1541.	0.2	0
68	Imaging Soft and Hard Dielectric Breakdown in Resistive Switching. Microscopy and Microanalysis, 2021, 27, 2354-2355.	0.2	0
69	Determining Lattice Parameters by Curve-Fitting Transmission Kikuchi Diffraction Patterns. Microscopy and Microanalysis, 2021, 27, 2020-2021.	0.2	0
70	In Situ Visualization of the Electron Wind Force in the Elastic Regime. Microscopy and Microanalysis, 2021, 27, 106-107.	0.2	0
71	Chemical Shift Detection with Energy Dispersive Spectroscopy (EDS). Microscopy and Microanalysis, 2021, 27, 2068-2069.	0.2	0