David C Bell

List of Publications by Year
in descending order

105	9,274	66234	46693
papers	citations	42 h-index	89 g-index

118	118	118	14205
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlled Growth and Structures of Molecular-Scale Silicon Nanowires. Nano Letters, 2004, 4, 433-436.	4.5	892
2	Alkali-Stabilized Pt-OH _x Species Catalyze Low-Temperature Water-Gas Shift Reactions. Science, 2010, 329, 1633-1636.	6.0	639
3	Metal ion cycling of Cu foil for selective Câ€“C coupling in electrochemical CO2 reduction. Nature Catalysis, 2018, 1, 111-119.	16.1	600
4	Massive Dirac fermions in a ferromagnetic kagome metal. Nature, 2018, 555, 638-642.	13.7	544
5	Influence of iron doping on tetravalent nickel content in catalytic oxygen evolving films. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1486-1491.	3.3	488
6	Synthesis of CdS and ZnS Nanowires Using Single-Source Molecular Precursors. Journal of the American Chemical Society, 2003, 125, 11498-11499.	6.6	426
7	Dirac fermions and flat bands in the ideal kagome metal FeSn. Nature Materials, 2020, 19, 163-169.	13.3	367
8	Rapid Fabrication of Uniformly Sized Nanopores and Nanopore Arrays for Parallel DNA Analysis. Advanced Materials, 2006, 18, 3149-3153.	11.1	360
9	Single-crystalline kinked semiconductor nanowire superstructures. Nature Nanotechnology, 2009, 4, 824-829.	15.6	352
10	Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis. CheM, 2017, 3, 950-960.	5.8	326
11	Optical Properties of Rotationally Twinned InP Nanowire Heterostructures. Nano Letters, 2008, 8, 836-841.	4.5	303
12	Precision cutting and patterning of graphene with helium ions. Nanotechnology, 2009, 20, 455301.	1.3	303
13	Etching of Graphene Devices with a Helium Ion Beam. ACS Nano, 2009, 3, 2674-2676.	7.3	283
14	Coaxial multishell nanowires with high-quality electronic interfaces and tunable optical cavities for ultrathin photovoltaics. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1407-1412.	3.3	238
15	Core-Shell Nanowire Light-Emitting Diodes. Advanced Materials, 2005, 17, 701-704.	11.1	215
16	Slow DNA Transport through Nanopores in Hafnium Oxide Membranes. ACS Nano, 2013, 7, 10121-10128.	7.3	181
17	Reducing Intestinal Digestion and Absorption of Fat Using a Nature-Derived Biopolymer: Interference of Triglyceride Hydrolysis by Nanocellulose. ACS Nano, 2018, 12, 6469-6479.	7.3	148
18	Interfacial Polygonal Nanopatterning of Stable Microbubbles. Science, 2008, 320, 1198-1201.	6.0	137

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19	Layer Hall effect in a 2D topological axion antiferromagnet. Nature, 2021, 595, 521-525.	13.7	136
20	Plateauâ€“Rayleigh crystal growth of periodic shells on one-dimensional substrates. Nature Nanotechnology, 2015, 10, 345-352.	15.6	131
21	Probing the Low-Temperature Waterâ€“Gas Shift Activity of Alkali-Promoted Platinum Catalysts Stabilized on Carbon Supports. Journal of the American Chemical Society, 2014, 136, 3238-3245.	6.6	120
22	Contrast Mechanisms and Image Formation in Helium Ion Microscopy. Microscopy and Microanalysis, 2009, 15, 147-153.	0.2	114
23	Scanning-helium-ion-beam lithography with hydrogen silsesquioxane resist. Journal of Vacuum Science & Technology B, 2009, 27, 2702-2706.	1.3	95
24	Oxygen Gasâ€“Filled Microparticles Provide Intravenous Oxygen Delivery. Science Translational Medicine, 2012, 4, 140ra88.	5.8	95
25	Large protein organelles form a new iron sequestration system with high storage capacity. ELife, 2019, 8, .	2.8	92
26	Nanocomposite Gold-Silk Nanofibers. Nano Letters, 2012, 12, 5403-5406.	4.5	86
27	Cu₂IrO₃: A New Magnetically Frustrated Honeycomb Iridate. Journal of the American Chemical Society, 2017, 139, 15371-15376.	6.6	83
28	Synthetically Encoded Ultrashort-Channel Nanowire Transistors for Fast, Pointlike Cellular Signal Detection. Nano Letters, 2012, 12, 2639-2644.	4.5	82
29	Direct and Scalable Deposition of Atomically Thin Low-Noise MoS₂ Membranes on Apertures. ACS Nano, 2015, 9, 7352-7359.	7.3	79
30	Clean 2D superconductivity in a bulk van der Waals superlattice. Science, 2020, 370, 231-236.	6.0	64
31	Size-Dependent Charge Collection in Junctions Containing Single-Size and Multi-Size Arrays of Colloidal CdSe Quantum Dots. Journal of the American Chemical Society, 2008, 130, 74-82.	6.6	58
32	Preparation and Characterization of Macroporous Î±â€Alumina. Journal of the American Ceramic Society, 2003, 86, 1481-1486.	1.9	56
33	Activation of carbon-supported platinum catalysts by sodium for the low-temperature water-gas shift reaction. Applied Catalysis B: Environmental, 2014, 144, 243-251.	10.8	56
34	New approaches to nanoparticle sample fabrication for atom probe tomography. Ultramicroscopy, 2015, 159, 413-419.	0.8	56
35	Imaging and analysis of nanowires. Microscopy Research and Technique, 2004, 64, 373-389.	1.2	54
36	Precipitation processes in the Beta-Titanium alloy Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Cr. Journal of Alloys and Compounds, 2015, 646, 946-953.	2.8	54

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37	Effects of materials parameters on mineralization and degradation of sol-gel bioactive glasses with 3D-ordered macroporous structures. Journal of Biomedical Materials Research Part B, 2003, 66A, 860-869.	3.0	50
38	Quantum-Spillover-Enhanced Surface-Plasmonic Absorption at the Interface of Silver and High-Index Dielectrics. Physical Review Letters, 2015, 115, 193901.	2.9	49
39	Mapping reactive flow patterns in monolithic nanoporous catalysts. Microfluidics and Nanofluidics, 2016, 20, 1.	1.0	46
40	Development of high throughput, high precision synthesis platforms and characterization methodologies for toxicological studies of nanocellulose. Cellulose, 2018, 25, 2303-2319.	2.4	45
41	Swollen Vesicles and Multiple Emulsions from Block Copolymers. Macromolecules, 2004, 37, 2215-2218.	2.2	44
42	The Use of Size-Selective Excitation To Study Photocurrent through Junctions Containing Single-Size and Multi-Size Arrays of Colloidal CdSe Quantum Dots. Journal of the American Chemical Society, 2008, 130, 83-92.	6.6	43
43	40keV atomic resolution TEM. Ultramicroscopy, 2012, 114, 31-37.	0.8	42
44	Nanowireâ€Induced Wurtzite InAs Thin Film on Zincâ€Blende InAs Substrate. Advanced Materials, 2009, 21, 3654-3658.	11.1	36
45	DNA Base Identification by Electron Microscopy. Microscopy and Microanalysis, 2012, 18, 1049-1053.	0.2	36
46	Bulk Manufacture of Concentrated Oxygen Gasâ€Filled Microparticles for Intravenous Oxygen Delivery. Advanced Healthcare Materials, 2013, 2, 1131-1141.	3.9	35
47	Direct Imaging of Atomic-Scale Ripples in Few-Layer Graphene. Nano Letters, 2012, 12, 2278-2282.	4.5	33
48	Facet-Selective Epitaxy of Compound Semiconductors on Faceted Silicon Nanowires. Nano Letters, 2015, 15, 4776-4782.	4.5	27
49	Successful application of Low Voltage Electron Microscopy to practical materials problems. Ultramicroscopy, 2014, 145, 56-65.	0.8	26
50	Synthesis and variable temperature electrical conductivity studies of highly ordered TiO2 nanotubes. Journal of Materials Science, 2009, 44, 4613-4616.	1.7	25
51	Lowâ€Temperature Growth of Carbon Nanotubes Catalyzed by Sodiumâ€Based Ingredients. Angewandte Chemie - International Edition, 2019, 58, 9204-9209.	7.2	25
52	Effect of nanoscale flows on the surface structure of nanoporous catalysts. Journal of Chemical Physics, 2017, 146, 214703.	1.2	24
53	Multiscale Morphology of Nanoporous Copper Made from Intermetallic Phases. ACS Applied Materials & Interfaces, 2017, 9, 25615-25622.	4.0	24
54	Effects of Materialâ€“Tissue Interactions on Bone Regeneration Outcomes Using Baghdadite Implants in a Large Animal Model. Advanced Healthcare Materials, 2018, 7, e1800218.	3.9	24

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55	Precision material modification and patterning with He ions. Journal of Vacuum Science & Technology B, 2009, 27, 2755.	1.3	22
56	Macroscopic 3D Nanoporosity Formation by Dry Oxidation of AgAu Alloys. Journal of Physical Chemistry C, 2017, 121, 5115-5122.	1.5	18
57	Sub-Ã...ngstrom Low-Voltage Performance of a Monochromated, Aberration-Corrected Transmission Electron Microscope. Microscopy and Microanalysis, 2010, 16, 386-392.	0.2	17
58	Epitaxial Catalyst-Free Growth of InN Nanorods onc-Plane Sapphire. Nanoscale Research Letters, 2009, 4, 532-537.	3.1	16
59	Strengthening of Ceramic-based Artificial Nacre via Synergistic Interactions of 1D Vanadium Pentoxide and 2D Graphene Oxide Building Blocks. Scientific Reports, 2017, 7, 40999.	1.6	15
60	Atom Probe Tomography for Catalysis Applications: A Review. Applied Sciences (Switzerland), 2019, 9, 2721.	1.3	15
61	Superconductivity in Bi/Ni bilayer system: Clear role of superconducting phases found at Bi/Ni interface. Physical Review Materials, 2018, 2, .	0.9	14
62	Dopant contrast in the helium ion microscope. Europhysics Letters, 2009, 85, 46001.	0.7	13
63	Development of high throughput, high precision synthesis platforms and characterization methodologies for toxicological studies of nanocellulose. Cellulose, 2018, 25, 2303-2319.	2.4	13
64	Resolution Limits of Secondary Electron Dopant Contrast in Helium Ion and Scanning Electron Microscopy. Microscopy and Microanalysis, 2011, 17, 637-642.	0.2	12
65	Large Photothermal Effect in Subâ€40 nm hâ€BN Nanostructures Patterned Via Highâ€Resolution Ion Beam. Small, 2018, 14, 1800072.	5.2	12
66	Angular-resolved electron energy loss spectroscopy on a split-ring resonator. Physical Review B, 2014, 89, .	1.1	11
67	Alkali concentration effects on the composition, morphology and magnetic properties of magnetite, maghemite and iron oxyhydroxide nanoparticles. Solid State Sciences, 2020, 106, 106295.	1.5	11
68	On the Origin of Sinterâ€Resistance and Catalyst Accessibility in Raspberryâ€Colloidâ€Templated Catalyst Design. Advanced Functional Materials, 2021, 31, 2106876.	7.8	10
69	Biotransformations and cytotoxicity of graphene and inorganic two-dimensional nanomaterials using simulated digestions coupled with a triculture in vitro model of the human gastrointestinal epithelium. Environmental Science: Nano, 2021, 8, 3233-3249.	2.2	10
70	Nanoscale Investigation of Belgian Chocolate by Atom Probe Tomography.. Microscopy and Microanalysis, 2017, 23, 708-709.	0.2	9
71	Aggregated nanoparticles: Sample preparation and analysis by atom probe tomography. Ultramicroscopy, 2020, 218, 113082.	0.8	9
72	Inner-shell ionization cross sections and aperture size in electron energy-loss spectroscopy. Physical Review B, 1997, 56, 9-11.	1.1	8

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73	Ion-sculpting of nanopores in amorphous metals, semiconductors, and insulators. Applied Physics Letters, 2010, 96, .	1.5	8
74	Significant decrease of electrical resistivity by carbon nanotube networks in copper-MWCNTs nanocomposites: A detailed microstructure study. Diamond and Related Materials, 2020, 110, 108083.	1.8	7
75	Transmission Electron Microscopy; Diffraction, Imaging, and Spectrometry C. Barry Carter and David B. Williams (Eds.). Springer International Publishing, Switzerland 2016, 518 pp. ISBN: 978-3-3-319-26649-7.. Microscopy and Microanalysis, 2018, 24, 324-324.	0.2	6
76	Pre-sharpened Microtips: An Efficient Sample Preparation Method for Atom Probe Tomography. Microscopy and Microanalysis, 2009, 15, 296-297.	0.2	4
77	Surface Modifications during a Catalytic Reaction: a Combined APT and FIB/SEM Analysis of Surface Segregation. Microscopy and Microanalysis, 2016, 22, 356-357.	0.2	4
78	Ultrathin Graphene-Like Carbon-Coated Iron Oxide Nanocrystals for Applications in Corrosive Environments. ACS Applied Nano Materials, 2019, 2, 667-672.	2.4	3
79	Catalysis and Atom Probe Tomography: Recent Progresses and Future Developments towards the Analysis of Nanoporous Samples. Microscopy and Microanalysis, 2015, 21, 855-856.	0.2	2
80	Frozen Phase in Situ Multi-Modal Microscopy of Liquid Metal Eutectics. Microscopy and Microanalysis, 2018, 24, 316-317.	0.2	2
81	Nanoscale crystallographic characterization of nanoporous catalyst by TKD. Applied Surface Science, 2019, 487, 1362-1365.	3.1	2
82	Imaging Nanotechnology. Microscopy and Microanalysis, 2003, 9, 284-285.	0.2	1
83	Single Crystal Three-Armed Cadmium Sulfide Nanowires (Nano-Tripods). Microscopy and Microanalysis, 2004, 10, 386-387.	0.2	1
84	EDITORIAL: SPECIAL ISSUE ON HELIUM ION MICROSCOPY. Scanning, 2012, 34, 81-82.	0.7	1
85	Preparation and Characterization of Eu-Doped Diamond Samples by Atom Probe Tomography. Microscopy and Microanalysis, 2016, 22, 694-695.	0.2	1
86	Interlaboratory Study: Laser-assisted Atom Probe Tomography (APT) of a Phosporous-Doped Silicon Specimen. Microscopy and Microanalysis, 2017, 23, 624-625.	0.2	1
87	Advancing Correlative STEM Analysis Methods for FE-SEM. Microscopy and Microanalysis, 2017, 23, 560-561.	0.2	1
88	Sample Preparation and Analysis of Aggregated â€˜Single Atom Alloyâ€™ Nanoparticles by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 1906-1907.	0.2	1
89	Nano-Tomography: Tomography to Understand the Full Structure of Nanowire. Microscopy and Microanalysis, 2004, 10, 1202-1203.	0.2	0
90	Coreâ€”Shell Nanowire Light-Emitting Diodes.. ChemInform, 2005, 36, no.	0.1	0

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91	Imaging Defects in Quantum Materials. Microscopy and Microanalysis, 2014, 20, 1086-1087.	0.2	0
92	New Microscopy â€“ the Imaging of Quantum Materials. Microscopy and Microanalysis, 2014, 20, 1764-1765.	0.2	0
93	Microscopy & Microanalysis 2014 in Hartford. Microscopy Today, 2014, 22, 38-41.	0.2	0
94	Imaging of Quantum Materials. Microscopy and Microanalysis, 2015, 21, 1325-1326.	0.2	0
95	Microscopy & Microanalysis 2014. Microscopy Today, 2015, 23, 38-41.	0.2	0
96	Visualizing Plasmonic Coupling in Metamaterials and Applying Angular Resolved EELS. Microscopy and Microanalysis, 2015, 21, 2385-2386.	0.2	0
97	Monochromated Low-Voltage EELS of Optical Resonances in Quantum Materials. Microscopy and Microanalysis, 2016, 22, 968-969.	0.2	0
98	Microstructure and Crystallographic Determination of Nanoporous Catalysts.. Microscopy and Microanalysis, 2017, 23, 2108-2109.	0.2	0
99	Modeling and design of Al<inf>0.25</inf>Ga<inf>0.75</inf>As/GaAs terahertz quantum cascade lasers with a realistic band structure. , 2017, , .		0
100	Electron Microscopy Studies Superconducting BaMX3 Family Materials. Microscopy and Microanalysis, 2018, 24, 2042-2043.	0.2	0
101	Enhanced Environmental Design for a New Integrated Hyper-Modal Microscope. Microscopy and Microanalysis, 2018, 24, 124-125.	0.2	0
102	Crystallography at the Nanoscale: t-EBSD Study of npAu Catalysts. Microscopy and Microanalysis, 2018, 24, 816-817.	0.2	0
103	Low Voltage Imaging of Quantum Materials Imaging the Surface Plasmon Polaritons in Chalcogenides. Microscopy and Microanalysis, 2019, 25, 460-461.	0.2	0
104	New Advanced Electron Microscopy to Discover New Quantum Materials. Microscopy and Microanalysis, 2019, 25, 932-933.	0.2	0
105	Chapter 7. Scanning Electron and Ion Microscopy of Nanostructures. RSC Nanoscience and Nanotechnology, 2015, , 300-350.	0.2	0