

David C Bell

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

9,274
citations

66234

42
h-index

46693

89
g-index

118
all docs

118
docs citations

118
times ranked

14205
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Layer Hall effect in a 2D topological axion antiferromagnet. <i>Nature</i> , 2021, 595, 521-525. | 13.7 | 136 |
| 2 | On the Origin of Sinter Resistance and Catalyst Accessibility in Raspberry Colloid Templated Catalyst Design. <i>Advanced Functional Materials</i> , 2021, 31, 2106876. | 7.8 | 10 |
| 3 | Biotransformations and cytotoxicity of graphene and inorganic two-dimensional nanomaterials using simulated digestions coupled with a triculture <i>in vitro</i> model of the human gastrointestinal epithelium. <i>Environmental Science: Nano</i> , 2021, 8, 3233-3249. | 2.2 | 10 |
| 4 | Dirac fermions and flat bands in the ideal kagome metal FeSn. <i>Nature Materials</i> , 2020, 19, 163-169. | 13.3 | 367 |
| 5 | Clean 2D superconductivity in a bulk van der Waals superlattice. <i>Science</i> , 2020, 370, 231-236. | 6.0 | 64 |
| 6 | Significant decrease of electrical resistivity by carbon nanotube networks in copper-MWCNTs nanocomposites: A detailed microstructure study. <i>Diamond and Related Materials</i> , 2020, 110, 108083. | 1.8 | 7 |
| 7 | Aggregated nanoparticles: Sample preparation and analysis by atom probe tomography. <i>Ultramicroscopy</i> , 2020, 218, 113082. | 0.8 | 9 |
| 8 | Alkali concentration effects on the composition, morphology and magnetic properties of magnetite, maghemite and iron oxyhydroxide nanoparticles. <i>Solid State Sciences</i> , 2020, 106, 106295. | 1.5 | 11 |
| 9 | Low Voltage Imaging of Quantum Materials Imaging the Surface Plasmon Polaritons in Chalcogenides. <i>Microscopy and Microanalysis</i> , 2019, 25, 460-461. | 0.2 | 0 |
| 10 | Atom Probe Tomography for Catalysis Applications: A Review. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2721. | 1.3 | 15 |
| 11 | New Advanced Electron Microscopy to Discover New Quantum Materials. <i>Microscopy and Microanalysis</i> , 2019, 25, 932-933. | 0.2 | 0 |
| 12 | Low Temperature Growth of Carbon Nanotubes Catalyzed by Sodium Based Ingredients. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9204-9209. | 7.2 | 25 |
| 13 | Nanoscale crystallographic characterization of nanoporous catalyst by TKD. <i>Applied Surface Science</i> , 2019, 487, 1362-1365. | 3.1 | 2 |
| 14 | Ultrathin Graphene-Like Carbon-Coated Iron Oxide Nanocrystals for Applications in Corrosive Environments. <i>ACS Applied Nano Materials</i> , 2019, 2, 667-672. | 2.4 | 3 |
| 15 | Large protein organelles form a new iron sequestration system with high storage capacity. <i>ELife</i> , 2019, 8, . | 2.8 | 92 |
| 16 | Development of high throughput, high precision synthesis platforms and characterization methodologies for toxicological studies of nanocellulose. <i>Cellulose</i> , 2018, 25, 2303-2319. | 2.4 | 45 |
| 17 | Metal ion cycling of Cu foil for selective C-C coupling in electrochemical CO ₂ reduction. <i>Nature Catalysis</i> , 2018, 1, 111-119. | 16.1 | 600 |
| 18 | Large Photothermal Effect in Sub-40 nm BN Nanostructures Patterned Via High-Resolution Ion Beam. <i>Small</i> , 2018, 14, 1800072. | 5.2 | 12 |

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|----|--|------|-----------|
| 19 | Massive Dirac fermions in a ferromagnetic kagome metal. <i>Nature</i> , 2018, 555, 638-642. | 13.7 | 544 |
| 20 | Electron Microscopy Studies Superconducting BaMX ₃ Family Materials. <i>Microscopy and Microanalysis</i> , 2018, 24, 2042-2043. | 0.2 | 0 |
| 21 | Enhanced Environmental Design for a New Integrated Hyper-Modal Microscope. <i>Microscopy and Microanalysis</i> , 2018, 24, 124-125. | 0.2 | 0 |
| 22 | Frozen Phase in Situ Multi-Modal Microscopy of Liquid Metal Eutectics. <i>Microscopy and Microanalysis</i> , 2018, 24, 316-317. | 0.2 | 2 |
| 23 | Crystallography at the Nanoscale: μ -EBSD Study of npAu Catalysts. <i>Microscopy and Microanalysis</i> , 2018, 24, 816-817. | 0.2 | 0 |
| 24 | 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.. <i>Microscopy and Microanalysis</i> , 2018, 24, 324-324. | 0.2 | 6 |
| 25 | Effects of Material-Tissue Interactions on Bone Regeneration Outcomes Using Baghdadite Implants in a Large Animal Model. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800218. | 3.9 | 24 |
| 26 | Reducing Intestinal Digestion and Absorption of Fat Using a Nature-Derived Biopolymer: Interference of Triglyceride Hydrolysis by Nanocellulose. <i>ACS Nano</i> , 2018, 12, 6469-6479. | 7.3 | 148 |
| 27 | Superconductivity in Bi/Ni bilayer system: Clear role of superconducting phases found at Bi/Ni interface. <i>Physical Review Materials</i> , 2018, 2, . | 0.9 | 14 |
| 28 | Development of high throughput, high precision synthesis platforms and characterization methodologies for toxicological studies of nanocellulose. <i>Cellulose</i> , 2018, 25, 2303-2319. | 2.4 | 13 |
| 29 | Influence of iron doping on tetravalent nickel content in catalytic oxygen evolving films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 1486-1491. | 3.3 | 488 |
| 30 | Macroscopic 3D Nanoporosity Formation by Dry Oxidation of AgAu Alloys. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5115-5122. | 1.5 | 18 |
| 31 | Strengthening of Ceramic-based Artificial Nacre via Synergistic Interactions of 1D Vanadium Pentoxide and 2D Graphene Oxide Building Blocks. <i>Scientific Reports</i> , 2017, 7, 40999. | 1.6 | 15 |
| 32 | Effect of nanoscale flows on the surface structure of nanoporous catalysts. <i>Journal of Chemical Physics</i> , 2017, 146, 214703. | 1.2 | 24 |
| 33 | Interlaboratory Study: Laser-assisted Atom Probe Tomography (APT) of a Phosphorus-Doped Silicon Specimen. <i>Microscopy and Microanalysis</i> , 2017, 23, 624-625. | 0.2 | 1 |
| 34 | Cu ₂ IrO ₃ : A New Magnetically Frustrated Honeycomb Iridate. <i>Journal of the American Chemical Society</i> , 2017, 139, 15371-15376. | 6.6 | 83 |
| 35 | Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis. <i>Chem</i> , 2017, 3, 950-960. | 5.8 | 326 |
| 36 | Nanoscale Investigation of Belgian Chocolate by Atom Probe Tomography.. <i>Microscopy and Microanalysis</i> , 2017, 23, 708-709. | 0.2 | 9 |

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|----|---|------|-----------|
| 37 | Multiscale Morphology of Nanoporous Copper Made from Intermetallic Phases. ACS Applied Materials & Interfaces, 2017, 9, 25615-25622. | 4.0 | 24 |
| 38 | Advancing Correlative STEM Analysis Methods for FE-SEM. Microscopy and Microanalysis, 2017, 23, 560-561. | 0.2 | 1 |
| 39 | Microstructure and Crystallographic Determination of Nanoporous Catalysts.. Microscopy and Microanalysis, 2017, 23, 2108-2109. | 0.2 | 0 |
| 40 | Modeling and design of Al _{0.25} Ga _{0.75} As/GaAs terahertz quantum cascade lasers with a realistic band structure. , 2017, , . | | 0 |
| 41 | Sample Preparation and Analysis of Aggregated "Single Atom Alloy"™ Nanoparticles by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 1906-1907. | 0.2 | 1 |
| 42 | Preparation and Characterization of Eu-Doped Diamond Samples by Atom Probe Tomography. Microscopy and Microanalysis, 2016, 22, 694-695. | 0.2 | 1 |
| 43 | Mapping reactive flow patterns in monolithic nanoporous catalysts. Microfluidics and Nanofluidics, 2016, 20, 1. | 1.0 | 46 |
| 44 | 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 |
| 45 | Monochromated Low-Voltage EELS of Optical Resonances in Quantum Materials. Microscopy and Microanalysis, 2016, 22, 968-969. | 0.2 | 0 |
| 46 | Imaging of Quantum Materials. Microscopy and Microanalysis, 2015, 21, 1325-1326. | 0.2 | 0 |
| 47 | Microscopy & Microanalysis 2014. Microscopy Today, 2015, 23, 38-41. | 0.2 | 0 |
| 48 | Visualizing Plasmonic Coupling in Metamaterials and Applying Angular Resolved EELS. Microscopy and Microanalysis, 2015, 21, 2385-2386. | 0.2 | 0 |
| 49 | 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 |
| 50 | Quantum-Spillover-Enhanced Surface-Plasmonic Absorption at the Interface of Silver and High-Index Dielectrics. Physical Review Letters, 2015, 115, 193901. | 2.9 | 49 |
| 51 | Precipitation processes in the Beta-Titanium alloy Ti-5Al-5Mo-3Cr. Journal of Alloys and Compounds, 2015, 646, 946-953. | 2.8 | 54 |
| 52 | Facet-Selective Epitaxy of Compound Semiconductors on Faceted Silicon Nanowires. Nano Letters, 2015, 15, 4776-4782. | 4.5 | 27 |
| 53 | Direct and Scalable Deposition of Atomically Thin Low-Noise MoS ₂ Membranes on Apertures. ACS Nano, 2015, 9, 7352-7359. | 7.3 | 79 |
| 54 | Plateau "Rayleigh" crystal growth of periodic shells on one-dimensional substrates. Nature Nanotechnology, 2015, 10, 345-352. | 15.6 | 131 |

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|----|---|------|-----------|
| 55 | New approaches to nanoparticle sample fabrication for atom probe tomography. <i>Ultramicroscopy</i> , 2015, 159, 413-419. | 0.8 | 56 |
| 56 | Chapter 7. Scanning Electron and Ion Microscopy of Nanostructures. <i>RSC Nanoscience and Nanotechnology</i> , 2015, , 300-350. | 0.2 | 0 |
| 57 | Angular-resolved electron energy loss spectroscopy on a split-ring resonator. <i>Physical Review B</i> , 2014, 89, . | 1.1 | 11 |
| 58 | Successful application of Low Voltage Electron Microscopy to practical materials problems. <i>Ultramicroscopy</i> , 2014, 145, 56-65. | 0.8 | 26 |
| 59 | Probing the Low-Temperature Water-Gas Shift Activity of Alkali-Promoted Platinum Catalysts Stabilized on Carbon Supports. <i>Journal of the American Chemical Society</i> , 2014, 136, 3238-3245. | 6.6 | 120 |
| 60 | Activation of carbon-supported platinum catalysts by sodium for the low-temperature water-gas shift reaction. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 243-251. | 10.8 | 56 |
| 61 | Imaging Defects in Quantum Materials. <i>Microscopy and Microanalysis</i> , 2014, 20, 1086-1087. | 0.2 | 0 |
| 62 | New Microscopy – the Imaging of Quantum Materials. <i>Microscopy and Microanalysis</i> , 2014, 20, 1764-1765. | 0.2 | 0 |
| 63 | Microscopy & Microanalysis 2014 in Hartford. <i>Microscopy Today</i> , 2014, 22, 38-41. | 0.2 | 0 |
| 64 | Bulk Manufacture of Concentrated Oxygen Gas-Filled Microparticles for Intravenous Oxygen Delivery. <i>Advanced Healthcare Materials</i> , 2013, 2, 1131-1141. | 3.9 | 35 |
| 65 | Slow DNA Transport through Nanopores in Hafnium Oxide Membranes. <i>ACS Nano</i> , 2013, 7, 10121-10128. | 7.3 | 181 |
| 66 | Nanocomposite Gold-Silk Nanofibers. <i>Nano Letters</i> , 2012, 12, 5403-5406. | 4.5 | 86 |
| 67 | Coaxial multishell nanowires with high-quality electronic interfaces and tunable optical cavities for ultrathin photovoltaics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 1407-1412. | 3.3 | 238 |
| 68 | Oxygen Gas-Filled Microparticles Provide Intravenous Oxygen Delivery. <i>Science Translational Medicine</i> , 2012, 4, 140ra88. | 5.8 | 95 |
| 69 | DNA Base Identification by Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2012, 18, 1049-1053. | 0.2 | 36 |
| 70 | Synthetically Encoded Ultrashort-Channel Nanowire Transistors for Fast, Pointlike Cellular Signal Detection. <i>Nano Letters</i> , 2012, 12, 2639-2644. | 4.5 | 82 |
| 71 | EDITORIAL: SPECIAL ISSUE ON HELIUM ION MICROSCOPY. <i>Scanning</i> , 2012, 34, 81-82. | 0.7 | 1 |
| 72 | Direct Imaging of Atomic-Scale Ripples in Few-Layer Graphene. <i>Nano Letters</i> , 2012, 12, 2278-2282. | 4.5 | 33 |

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|----|---|------|-----------|
| 73 | 40keV atomic resolution TEM. Ultramicroscopy, 2012, 114, 31-37. | 0.8 | 42 |
| 74 | Resolution Limits of Secondary Electron Dopant Contrast in Helium Ion and Scanning Electron Microscopy. Microscopy and Microanalysis, 2011, 17, 637-642. | 0.2 | 12 |
| 75 | Ion-sculpting of nanopores in amorphous metals, semiconductors, and insulators. Applied Physics Letters, 2010, 96, . | 1.5 | 8 |
| 76 | Alkali-Stabilized Pt-OH \times Species Catalyze Low-Temperature Water-Gas Shift Reactions. Science, 2010, 329, 1633-1636. | 6.0 | 639 |
| 77 | Sub-Ångstrom Low-Voltage Performance of a Monochromated, Aberration-Corrected Transmission Electron Microscope. Microscopy and Microanalysis, 2010, 16, 386-392. | 0.2 | 17 |
| 78 | Precision cutting and patterning of graphene with helium ions. Nanotechnology, 2009, 20, 455301. | 1.3 | 303 |
| 79 | Scanning-helium-ion-beam lithography with hydrogen silsesquioxane resist. Journal of Vacuum Science & Technology B, 2009, 27, 2702-2706. | 1.3 | 95 |
| 80 | Dopant contrast in the helium ion microscope. Europhysics Letters, 2009, 85, 46001. | 0.7 | 13 |
| 81 | Nanowire-Induced Wurtzite InAs Thin Film on Zinc-Blende InAs Substrate. Advanced Materials, 2009, 21, 3654-3658. | 11.1 | 36 |
| 82 | Synthesis and variable temperature electrical conductivity studies of highly ordered TiO ₂ nanotubes. Journal of Materials Science, 2009, 44, 4613-4616. | 1.7 | 25 |
| 83 | Epitaxial Catalyst-Free Growth of InN Nanorods on-Plane Sapphire. Nanoscale Research Letters, 2009, 4, 532-537. | 3.1 | 16 |
| 84 | Single-crystalline kinked semiconductor nanowire superstructures. Nature Nanotechnology, 2009, 4, 824-829. | 15.6 | 352 |
| 85 | Etching of Graphene Devices with a Helium Ion Beam. ACS Nano, 2009, 3, 2674-2676. | 7.3 | 283 |
| 86 | Contrast Mechanisms and Image Formation in Helium Ion Microscopy. Microscopy and Microanalysis, 2009, 15, 147-153. | 0.2 | 114 |
| 87 | Pre-sharpened Microtips: An Efficient Sample Preparation Method for Atom Probe Tomography. Microscopy and Microanalysis, 2009, 15, 296-297. | 0.2 | 4 |
| 88 | Precision material modification and patterning with He ions. Journal of Vacuum Science & Technology B, 2009, 27, 2755. | 1.3 | 22 |
| 89 | Interfacial Polygonal Nanopatterning of Stable Microbubbles. Science, 2008, 320, 1198-1201. | 6.0 | 137 |
| 90 | 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 |

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|-----|---|------|-----------|
| 91 | Optical Properties of Rotationally Twinned InP Nanowire Heterostructures. Nano Letters, 2008, 8, 836-841. | 4.5 | 303 |
| 92 | 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 |
| 93 | Rapid Fabrication of Uniformly Sized Nanopores and Nanopore Arrays for Parallel DNA Analysis. Advanced Materials, 2006, 18, 3149-3153. | 11.1 | 360 |
| 94 | Core-Shell Nanowire Light-Emitting Diodes. Advanced Materials, 2005, 17, 701-704. | 11.1 | 215 |
| 95 | Core-Shell Nanowire Light-Emitting Diodes.. ChemInform, 2005, 36, no. | 0.1 | 0 |
| 96 | Imaging and analysis of nanowires. Microscopy Research and Technique, 2004, 64, 373-389. | 1.2 | 54 |
| 97 | Swollen Vesicles and Multiple Emulsions from Block Copolymers. Macromolecules, 2004, 37, 2215-2218. | 2.2 | 44 |
| 98 | Controlled Growth and Structures of Molecular-Scale Silicon Nanowires. Nano Letters, 2004, 4, 433-436. | 4.5 | 892 |
| 99 | Single Crystal Three-Armed Cadmium Sulfide Nanowires (Nano-Tripods). Microscopy and Microanalysis, 2004, 10, 386-387. | 0.2 | 1 |
| 100 | Nano-Tomography: Tomography to Understand the Full Structure of Nanowire. Microscopy and Microanalysis, 2004, 10, 1202-1203. | 0.2 | 0 |
| 101 | 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 |
| 102 | Preparation and Characterization of Macroporous γ -Alumina. Journal of the American Ceramic Society, 2003, 86, 1481-1486. | 1.9 | 56 |
| 103 | Synthesis of CdS and ZnS Nanowires Using Single-Source Molecular Precursors. Journal of the American Chemical Society, 2003, 125, 11498-11499. | 6.6 | 426 |
| 104 | Imaging Nanotechnology. Microscopy and Microanalysis, 2003, 9, 284-285. | 0.2 | 1 |
| 105 | Inner-shell ionization cross sections and aperture size in electron energy-loss spectroscopy. Physical Review B, 1997, 56, 9-11. | 1.1 | 8 |