

Mary C Scott

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

2,937
citations

257101

24
h-index

174990

52
g-index

58
all docs

58
docs citations

58
times ranked

4768
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron tomography at 2.4-ÅngstrÅm resolution. Nature, 2012, 483, 444-447.	13.7	366
2	Solution-Synthesized High-Mobility Tellurium Nanoflakes for Short-Wave Infrared Photodetectors. ACS Nano, 2018, 12, 7253-7263.	7.3	298
3	Deciphering chemical order/disorder and material properties at the single-atom level. Nature, 2017, 542, 75-79.	13.7	243
4	Facile bottom-up synthesis of partially oxidized black phosphorus nanosheets as metal-free photocatalyst for hydrogen evolution. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4345-4350.	3.3	207
5	Three-dimensional coordinates of individual atoms in materials revealed by electronÅtomography. Nature Materials, 2015, 14, 1099-1103.	13.3	172
6	Evaporated tellurium thin films for p-type field-effect transistors and circuits. Nature Nanotechnology, 2020, 15, 53-58.	15.6	153
7	Efficient solar-driven electrochemical CO ₂ reduction to hydrocarbons and oxygenates. Energy and Environmental Science, 2017, 10, 2222-2230.	15.6	145
8	Characterization of mechanical degradation in an all-solid-state battery cathode. Journal of Materials Chemistry A, 2020, 8, 17399-17404.	5.2	100
9	Helical van der Waals crystals with discretized Eshelby twist. Nature, 2019, 570, 358-362.	13.7	91
10	Synthetic WSe ₂ monolayers with high photoluminescence quantum yield. Science Advances, 2019, 5, eaau4728.	4.7	78
11	Optical and electrical properties of two-dimensional palladium diselenide. Applied Physics Letters, 2019, 114, .	1.5	74
12	Atomically Altered Hematite for Highly Efficient Perovskite Tandem WaterÅSplitting Devices. ChemSusChem, 2017, 10, 2449-2456.	3.6	71
13	Direct Visualization of the Interfacial Degradation of Cathode Coatings in Solid State Batteries: A Combined Experimental and Computational Study. Advanced Energy Materials, 2020, 10, 1903778.	10.2	67
14	Evaporated Se _x Te _{1-x} Thin Films with Tunable Bandgaps for Short-Wave Infrared Photodetectors. Advanced Materials, 2020, 32, e2001329.	11.1	49
15	Ion Write Microthermotics: Programing Thermal Metamaterials at the Microscale. Nano Letters, 2019, 19, 3830-3837.	4.5	45
16	Nanomaterial datasets to advance tomography in scanning transmission electron microscopy. Scientific Data, 2016, 3, 160041.	2.4	42
17	Tunable and low-loss correlated plasmons in Mott-like insulating oxides. Nature Communications, 2017, 8, 15271.	5.8	42
18	Prismatic 2.0 Å Simulation software for scanning and high resolution transmission electron microscopy (STEM and HRTEM). Micron, 2021, 151, 103141.	1.1	42

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19	Role of element-specific damping in ultrafast, helicity-independent, all-optical switching dynamics in amorphous (Gd,Tb)Co thin films. <i>Physical Review B</i> , 2021, 103, .	1.1	40
20	Machine Learning Pipeline for Segmentation and Defect Identification from High-Resolution Transmission Electron Microscopy Data. <i>Microscopy and Microanalysis</i> , 2021, 27, 549-556.	0.2	34
21	Tellurium Single-Crystal Arrays by Low-Temperature Evaporation and Crystallization. <i>Advanced Materials</i> , 2021, 33, e2100860.	11.1	32
22	Decoupling electron and phonon transport in single-nanowire hybrid materials for high-performance thermoelectrics. <i>Science Advances</i> , 2021, 7, .	4.7	30
23	Interface engineering for light-driven water oxidation: unravelling the passivating and catalytic mechanism in BiVO ₄ overlayers. <i>Sustainable Energy and Fuels</i> , 2019, 3, 127-135.	2.5	28
24	Polaronic Trions at the MoS ₂ /SrTiO ₃ Interface. <i>Advanced Materials</i> , 2019, 31, 1903569.	11.1	26
25	Three-dimensional Architecture Enabled by Strained Two-dimensional Material Heterojunction. <i>Nano Letters</i> , 2018, 18, 1819-1825.	4.5	24
26	Elimination of Response to Relative Humidity Changes in Chemical-Sensitive Field-Effect Transistors. <i>ACS Sensors</i> , 2019, 4, 1857-1863.	4.0	24
27	In-situ resonant band engineering of solution-processed semiconductors generates high performance n-type thermoelectric nano-inks. <i>Nature Communications</i> , 2020, 11, 2069.	5.8	23
28	Thermodynamically Driven Synthetic Optimization for Cation-Disordered Rock Salt Cathodes. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	20
29	Revealing the Phase Separation Behavior of Thermodynamically Immiscible Elements in a Nanoparticle. <i>Nano Letters</i> , 2021, 21, 6684-6689.	4.5	18
30	Towards three-dimensional structural determination of amorphous materials at atomic resolution. <i>Physical Review B</i> , 2013, 88, .	1.1	17
31	Automated Crystal Orientation Mapping in py4DSTEM using Sparse Correlation Matching. <i>Microscopy and Microanalysis</i> , 2022, 28, 390-403.	0.2	17
32	Direct Bandgap-like Strong Photoluminescence from Twisted Multilayer MoS ₂ Grown on SrTiO ₃ . <i>ACS Nano</i> , 2020, 14, 16761-16769.	7.3	16
33	Simultaneous Successive Twinning Captured by Atomic Electron Tomography. <i>ACS Nano</i> , 2022, 16, 588-596.	7.3	12
34	Phase-contrast imaging of multiply-scattering extended objects at atomic resolution by reconstruction of the scattering matrix. <i>Physical Review Research</i> , 2021, 3, .	1.3	11
35	A Fast Algorithm for Scanning Transmission Electron Microscopy Imaging and 4D-STEM Diffraction Simulations. <i>Microscopy and Microanalysis</i> , 2021, 27, 835-848.	0.2	11
36	Elucidating the local atomic and electronic structure of amorphous oxidized superconducting niobium films. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	10

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37	3D Nanotomography of calcium silicate hydrates by transmission electron microscopy. <i>Journal of the American Ceramic Society</i> , 2021, 104, 1852-1862.	1.9	9
38	Direct observation of anisotropic small-hole polarons in an orthorhombic structure of BiVO_4 films. <i>Physical Review B</i> , 2018, 97, .	1.1	7
39	Machine Learning for High Throughput HRTEM Analysis. <i>Microscopy and Microanalysis</i> , 2019, 25, 150-151.	0.2	7
40	Orientated Growth of Ultrathin Tellurium by van der Waals Epitaxy. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	7
41	Tilted fluctuation electron microscopy. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	6
42	Understanding Diameter and Length Effects in a Solution-Processable Tellurium-Poly(3,4-Ethylenedioxythiophene) Polystyrene Sulfonate Hybrid Thermoelectric Nanowire Mesh. <i>Advanced Electronic Materials</i> , 2021, 7, 2000904.	2.6	6
43	A layered nonstoichiometric lepidocrocite-type sodium titanate anode material for sodium-ion batteries. <i>MRS Energy & Sustainability</i> , 2021, 8, 88.	1.3	4
44	Chemical and Structural Alterations in the Amorphous Structure of Obsidian due to Nanolites. <i>Microscopy and Microanalysis</i> , 2022, 28, 289-295.	0.2	4
45	Classifying handedness in chiral nanomaterials using label error robust deep learning. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	3
46	Atomic Resolution Tomography of Magnetically Anisotropic FePt Nanoparticles. <i>Microscopy and Microanalysis</i> , 2014, 20, 804-805.	0.2	1
47	Stability Studies of MAPbI ₃ : Identification of Degradation Pathways and Strategies for Observing the Native Structure of Lead Halide Perovskites. <i>Microscopy and Microanalysis</i> , 2016, 22, 1510-1511.	0.2	1
48	Linear and Nonlinear Reconstruction Algorithms for Atomic-Resolution Tomography Using Phase Contrast Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 110-111.	0.2	1
49	Characterizing Magnetic Anisotropy in Amorphous Metal Films Using Tilted Fluctuation Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 204-205.	0.2	1
50	Engineering Chiral Structures Through Strain Release: Electron Tomography Study of Twisted Nanowires. <i>Microscopy and Microanalysis</i> , 2019, 25, 1804-1805.	0.2	1
51	Structural heterogeneity in non-crystalline $\text{Te}_x\text{Se}_{1-x}$ thin films. <i>Applied Physics Letters</i> , 2022, 121, 012101.	1.5	1
52	Three-Dimensional Imaging of Dislocations and Defects in Materials at Atomic Resolution Using Electron Tomography. <i>Microscopy and Microanalysis</i> , 2014, 20, 1062-1063.	0.2	0
53	Three-Dimensional Determination of the Coordinates of Individual Atoms in Materials. <i>Microscopy and Microanalysis</i> , 2016, 22, 916-917.	0.2	0
54	Atomic Electron Tomography: Adding a New Dimension to See Single Atoms in Materials. <i>Microscopy and Microanalysis</i> , 2018, 24, 558-559.	0.2	0

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55	Tilted Fluctuation Electron Microscopy Characterization of Magnetically Anisotropic Amorphous Metal Films. <i>Microscopy and Microanalysis</i> , 2019, 25, 1886-1887.	0.2	0
56	Structural Ordering and Composition of Warner Mountains Obsidian and its Microlites. <i>Microscopy and Microanalysis</i> , 2021, 27, 1850-1852.	0.2	0