Frances M Ross

List of Publications by Year
in descending order

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Version: 2024-02-01

45 papers	3,762 citations	236612 25 h-index	253896 43 g-index
45 all docs	45 docs citations	45 times ranked	4094 citing authors

#	Article	IF	Citations
1	Direct imaging and electronic structure modulation of moirÃ© superlattices at the 2D/3D interface. Nature Communications, 2021, 12, 1290.	5.8	48
2	Multilayer Grapheneâ€"A Promising Electrode Material in Liquid Cell Electrochemistry. Advanced Functional Materials, 2021, 31, 2104628.	7.8	11
3	Real-time imaging of nanoscale electrochemical Ni etching under thermal conditions. Chemical Science, 2021, 12, 5259-5268.	3.7	10
4	Catalytically mediated epitaxy of 3D semiconductors on van der Waals substrates. Applied Physics Reviews, 2020, 7, .	5.5	15
5	In situ TEM modification of individual silicon nanowires and their charge transport mechanisms. Nanotechnology, 2020, 31, 494002.	1.3	3
6	Impact of substrate induced band tail states on the electronic and optical properties of MoS2. Applied Physics Letters, 2019, 115, .	1.5	24
7	Resolution and aberration correction in liquid cell transmission electron microscopy. Nature Reviews Materials, 2019, 4, 61-78.	23.3	125
8	Directed Self-Assembly of Ge Quantum Dots Using Focused Si2+ Ion Beam Patterning. Scientific Reports, 2018, 8, 9361.	1.6	4
9	Nanoscale evolution of interface morphology during electrodeposition. Nature Communications, 2017, 8, 2174.	5.8	44
10	Strain and Stability of Ultrathin Ge Layers in Si/Ge/Si Axial Heterojunction Nanowires. Nano Letters, 2015, 15, 1654-1659.	4.5	24
11	Control of Electron Beam-Induced Au Nanocrystal Growth Kinetics through Solution Chemistry. Nano Letters, 2015, 15, 5314-5320.	4.5	122
12	Observation of materials processes in liquids by electron microscopy. MRS Bulletin, 2015, 40, 46-52.	1.7	40
13	Creating New VLS Silicon Nanowire Contact Geometries by Controlling Catalyst Migration. Nano Letters, 2015, 15, 6535-6541.	4.5	16
14	Controlled Nucleation of Ge Islands on Si and Self-Assembly of Nanoscale Island Clusters. International Journal of High Speed Electronics and Systems, 2014, 23, 1420003.	0.3	0
15	Electronâ€"Water Interactions and Implications for Liquid Cell Electron Microscopy. Journal of Physical Chemistry C, 2014, 118, 22373-22382.	1.5	519
16	Bubble and Pattern Formation in Liquid Induced by an Electron Beam. Nano Letters, 2014, 14, 359-364.	4.5	286
17	Radiolysis during Liquid Cell Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 1516-1517.	0.2	1
18	Visualization of Active and Passive Control of Morphology during Electrodeposition. Microscopy and Microanalysis, 2014, 20, 1530-1531.	0.2	11

#	Article	IF	Citations
19	Corrosion of Metal Films Observed Using In Situ and Ex Situ Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 1540-1541.	0.2	1
20	Electric Field Induced Au Nanocrystal Formation in Aqueous Solutions. Microscopy and Microanalysis, 2014, 20, 1598-1599.	0.2	4
21	Nanoscale chemical templating of Si nanowires seeded with Al. Nanotechnology, 2013, 24, 235301.	1.3	8
22	Microstructural changes in silicon induced by patterning with focused ion beams of Ga, Si and Au. Ultramicroscopy, 2013, 127, 126-131.	0.8	4
23	Strategies To Control Morphology in Hybrid Group IIIâ€“V/Group IV Heterostructure Nanowires. Nano Letters, 2013, 13, 903-908.	4.5	63
24	Three-Dimensional a-Si:H Solar Cells on Glass Nanocone Arrays Patterned by Self-Assembled Sn Nanospheres. ACS Nano, 2012, 6, 265-271.	7.3	60
25	In Situ TEM Creation and Electrical Characterization of Nanowire Devices. Nano Letters, 2012, 12, 2965-2970.	4.5	34
26	Controlling the Growth of Si/Ge Nanowires and Heterojunctions Using Silverâ€“Gold Alloy Catalysts. ACS Nano, 2012, 6, 6407-6415.	7.3	77
27	Electron microscopy of specimens in liquid. Nature Nanotechnology, 2011, 6, 695-704.	15.6	838
28	Heteroepitaxial silicon film growth at 600Â°C from an Alâ€“Si eutectic melt. Thin Solid Films, 2010, 518, 5368-5371.	0.8	10
29	Measurement of Local Siâ€Nanowire Growth Kinetics Using In situ Transmission Electron Microscopy of Heated Cantilevers. Small, 2010, 6, 2058-2064.	5.2	27
30	(Invited) Fabrication and Properties of Abrupt Si-Ge Heterojunction Nanowire Structures. ECS Transactions, 2010, 33, 671-680.	0.3	1
31	Controlling nanowire structures through real time growth studies. Reports on Progress in Physics, 2010, 73, 114501.	8.1	178
32	Bringing order to twin-plane defects. Nature Nanotechnology, 2009, 4, 17-18.	15.6	18
33	Growth System, Structure, and Doping of Aluminum-Seeded Epitaxial Silicon Nanowires. Nano Letters, 2009, 9, 3296-3301.	4.5	73
34	Au Stabilization and Coverage of Sawtooth Facets on Si Nanowires Grown by Vaporâ^'Liquidâ^'Solid Epitaxy. Nano Letters, 2008, 8, 3065-3068.	4.5	41
35	Control of GaP and GaAs Nanowire Morphology through Particle and Substrate Chemical Modification. Nano Letters, 2008, 8, 4087-4091.	4.5	35
36	Environmental (S)TEM Studies of Gasâ€“Liquidâ€“Solid Interactions under Reaction Conditions. MRS Bulletin, 2008, 33, 107-114.	1.7	69

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37	The Morphology of Axial and Branched Nanowire Heterostructures. Nano Letters, 2007, 7, 1817-1822.	4.5	175
38	Quantifying Electrochemical Nucleation and Growth of Nanoscale Clusters Using Real-Time Kinetic Data. Nano Letters, 2006, 6, 238-242.	4.5	248
39	Control of Si Nanowire Growth by Oxygen. Nano Letters, 2006, 6, 1292-1296.	4.5	159
40	Growth and characterization of epitaxial Si/(LaxY1â^'x)2O3/Si heterostructures. Journal of Applied Physics, 2003, 93, 251-258.	1.1	34
41	Dynamic Studies of Semiconductor Growth Processes Using In Situ Electron Microscopy. MRS Bulletin, 2001, 26, 94-101.	1.7	4
42	Dynamic observations of interface motion during the oxidation of silicon. Surface Science, 1994, 310, 243-266.	0.8	62
43	Dynamic observations of interface propagation during silicon oxidation. Physical Review Letters, 1992, 68, 1782-1785.	2.9	124
44	30 nm CoSi2surface layers for contact metallization in complementary metalâ€oxideâ€semiconductor processes. Applied Physics Letters, 1992, 61, 2311-2313.	1.5	2
45	Pore morphology and the mechanism of pore formation innâ€type silicon. Journal of Applied Physics, 1992, 72, 253-258.	1.1	110