Songkil K Kim

List of Publications by Year
in descending order

53 papers	1,160 citations	430754 18 h-index	395590 33 g-index
54 all docs	54 docs citations	54 times ranked	1859 citing authors

#	Article	IF	Citations
1	Chemical nature of ferroelastic twin domains in CH3NH3PbI3 perovskite. Nature Materials, 2018, 17, 1013-1019.	13.3	183
2	Placing single atoms in graphene with a scanning transmission electron microscope. Applied Physics Letters, 2017, 111, .	1.5	119
3	Building Structures Atom by Atom via Electron Beam Manipulation. Small, 2018, 14, e1801771.	5.2	81
4	Chemical Reduction of Individual Graphene Oxide Sheets as Revealed by Electrostatic Force Microscopy. Journal of the American Chemical Society, 2014, 136, 6546-6549.	6.6	66
5	Engineering the thermal conductivity along an individual silicon nanowire by selective helium ion irradiation. Nature Communications, 2017, 8, 15919.	5.8	65
6	Crystalline Phase Reduction of Cuprous Oxide (Cu₂O) Nanoparticles Accompanied by a Morphology Change during Ethanol-Assisted Spray Pyrolysis. Langmuir, 2009, 25, 7063-7071.	1.6	42
7	Rapid Electron Beam Writing of Topologically Complex 3D Nanostructures Using Liquid Phase Precursor. Nano Letters, 2015, 15, 8385-8391.	4.5	39
8	Fabrication of an UltraLow-Resistance Ohmic Contact to MWCNTâ€“Metal Interconnect Using Graphitic Carbon by Electron Beam-Induced Deposition (EBID). IEEE Nanotechnology Magazine, 2012, 11, 1223-1230.	1.1	38
9	Three-dimensional off-lattice Monte Carlo simulations on a direct relation between experimental process parameters and fractal dimension of colloidal aggregates. Journal of Colloid and Interface Science, 2010, 344, 353-361.	5.0	33
10	Mitigating e-beam-induced hydrocarbon deposition on graphene forâ€‰atomic-scale scanning transmission electron microscopy studies. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	0.6	32
11	The effect of the geometry and material properties of a carbon joint produced by electron beam induced deposition on the electrical resistance of a multiwalled carbon nanotube-to-metal contact interface. Nanotechnology, 2010, 21, 035202.	1.3	31
12	Thermally Induced Transformations of Amorphous Carbon Nanostructures Fabricated by Electron Beam Induced Deposition. ACS Applied Materials & Interfaces, 2011, 3, 710-720.	4.0	27
13	Maskless and Resist-Free Rapid Prototyping of Three-Dimensional Structures Through Electron Beam Induced Deposition (EBID) of Carbon in Combination with Metal-Assisted Chemical Etching (MaCE) of Silicon. ACS Applied Materials & Interfaces, 2010, 2, 969-973.	4.0	26
14	Lightâ€Induced Plasmonâ€Assisted Phase Transformation of Carbon on Metal Nanoparticles. Advanced Functional Materials, 2012, 22, 2129-2139.	7.8	23
15	Focused-electron-beam-induced processing (FEBIP) for emerging applications in carbon nanoelectronics. Applied Physics A: Materials Science and Processing, 2014, 117, 1659-1674.	1.1	23
16	Noble gas ion beams in materials science for future applications and devices. MRS Bulletin, 2017, 42, 660-666.	1.7	23
17	E-beam manipulation of Si atoms on graphene edges with an aberration-corrected scanning transmission electron microscope. Nano Research, 2018, 11, 6217-6226.	5.8	21
18	Reply to: On the ferroelectricity of CH3NH3PbI3 perovskites. Nature Materials, 2019, 18, 1051-1053.	13.3	21

#	Article	IF	Citations
19	High Purity Tungsten Nanostructures via Focused Electron Beam Induced Deposition with Carrier Gas Assisted Supersonic Jet Delivery of Organometallic Precursors. Journal of Physical Chemistry C, 2016, 120, 10584-10590.	1.5	18
20	Multi-purposed Ar gas cluster ion beam processing for graphene engineering. Carbon, 2018, 131, 142-148.	5.4	18
21	Graphene milling dynamics during helium ion beam irradiation. Carbon, 2018, 138, 277-282.	5.4	18
22	Controlling the Physicochemical State of Carbon on Graphene Using Focused Electron-Beam-Induced Deposition. ACS Nano, 2014, 8, 6805-6813.	7.3	17
23	Selective patterning of out-of-plane piezoelectricity in MoTe2 via focused ion beam. Nano Energy, 2021, 79, 105451.	8.2	17
24	Aerodynamic focusing of 5â€“50nm nanoparticles in air. Journal of Aerosol Science, 2009, 40, 1010-1018.	1.8	16
25	High Resolution Multimodal Chemical Imaging Platform for Organics and Inorganics. Analytical Chemistry, 2019, 91, 12142-12148.	3.2	16
26	Direct Write of 3D Nanoscale Mesh Objects with Platinum Precursor via Focused Helium Ion Beam Induced Deposition. Micromachines, 2020, 11, 527.	1.4	15
27	Uniform-thickness electrospun nanofiber mat production system based on real-time thickness measurement. Scientific Reports, 2020, 10, 20847.	1.6	13
28	Inert gas jets for growth control in electron beam induced deposition. Applied Physics Letters, 2011, 98, 263109.	1.5	12
29	Dynamic modulation of electronic properties of graphene by localized carbon doping using focused electron beam induced deposition. Nanoscale, 2015, 7, 14946-14952.	2.8	12
30	Activating â€œInvisibleâ€•Glue: Using Electron Beam for Enhancement of Interfacial Properties of Grapheneâ€“Metal Contact. ACS Nano, 2016, 10, 1042-1049.	7.3	12
31	Pt Catalyst over SiO2 and Al2O3 Supports Synthesized by Aerosol Method for HC-SCR DeNOx Application. Aerosol and Air Quality Research, 2015, 15, 2409-2421.	0.9	12
32	Localized conductive patterning via focused electron beam reduction of graphene oxide. Applied Physics Letters, 2015, 106, .	1.5	11
33	Using an energized oxygen micro-jet for improved graphene etching by focused electron beam. Applied Physics Letters, 2015, 107, .	1.5	7
34	Effect of Volume Fraction on Transient Structural Behavior of Aerosol Particles Using Off-Lattice Kinetic Monte Carlo Simulation. Aerosol Science and Technology, 2015, 49, 1242-1255.	1.5	6
35	Toward high-accuracy and high-applicability of a practical model to predict effective thermal conductivity of particle-reinforced composites. International Journal of Heat and Mass Transfer, 2019, 131, 863-872.	2.5	6
36	High-Resolution Three-Dimensional Sculpting of Two-Dimensional Graphene Oxide by E-Beam Direct Write. ACS Applied Materials & Interfaces, 2020, 12, 39595-39601.	4.0	6

#	Article	IF	Citations
37	Nanoscale friction of CVD single-layer MoS2 with controlled defect formation. Surfaces and Interfaces, 2021, 26, 101437.	1.5	5
38	Direct matter disassembly via electron beam control: electron-beam-mediated catalytic etching of graphene by nanoparticles. Nanotechnology, 2020, 31, 245303.	1.3	4
39	Automatic path generation for tractor-trailers according to the ramp slope of Ro-Ro ships. Journal of Computational Design and Engineering, 2021, 8, 316-329.	1.5	4
40	Correlating surface structures and nanoscale friction of CVD Multi-Layered graphene. Applied Surface Science, 2022, 584, 152572.	3.1	4
41	In situ liquid cell crystallization and imaging of thiamethoxam by helium ion microscopy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	0.6	3
42	Multi-Model Imaging of Local Chemistry and Ferroic Properties of Hybrid Organic-Inorganic Perovskites. Microscopy and Microanalysis, 2019, 25, 2076-2077.	0.2	3
43	Non-equilibrium adatom thermal state enables rapid additive nanomanufacturing. Physical Chemistry Chemical Physics, 2019, 21, 10449-10456.	1.3	3
44	Generation of filament winding patterns for elbows with various cross-sections. Journal of Composite Materials, 2022, 56, 313-327.	1.2	3
45	Graphene Defect Editing, Deposition, and Growth via E-Beam-Induced Organic Reactions in Aberration Corrected STEM. Microscopy and Microanalysis, 2018, 24, 1994-1995.	0.2	1
46	3D Nanostructures Grown via Focused Helium Ion Beam Induced Deposition. Microscopy and Microanalysis, 2018, 24, 332-333.	0.2	1
47	Multimode jetting unlocks a trade-off between nanostructure morphology and composition in focused electron beam induced deposition. Materials Today Communications, 2019, 21, 100645.	0.9	1
48	Manufacture of Tungsten Heavy Alloy Tube by Diffusion Bonding of Semicircular Tubes. Journal of Materials Engineering and Performance, 2020, 29, 699-711.	1.2	1
49	Ion Beam Induced Current Measurements of Solar Cells with Helium Ion Microscopy. Microscopy and Microanalysis, 2017, 23, 2084-2085.	0.2	0
50	Multi-Modal Processing of Graphene Towards Precisely Controlled Fabrication of a Nanoelectronic Device Using the Helium Ion Microscope and the TOF SIMS. Microscopy and Microanalysis, 2017, 23, 1720-1721.	0.2	0
51	Atom-by-Atom Assembly in Aberration Corrected STEM and the Role of Chemistry at the Surface of Graphene. Microscopy and Microanalysis, 2018, 24, 326-327.	0.2	0
52	Atomic Manipulation on a Scanning Transmission Electron Microscope Platform using Real-Time Image Processing and Feedback. Microscopy and Microanalysis, 2018, 24, 534-535.	0.2	0
53	Automated Atom-by-Atom Assembly of Structures in Graphene: The Rise of STEM for Atomic Scale Control. Microscopy and Microanalysis, 2018, 24, 1594-1595.	0.2	0