

# Suhas Somnath

## List of Publications by Year in descending order

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Version: 2024-02-01

43  
papers

919  
citations

471509

17  
h-index

454955

30  
g-index

46  
all docs

46  
docs citations

46  
times ranked

1690  
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective patterning of out-of-plane piezoelectricity in MoTe <sub>2</sub> via focused ion beam. Nano Energy, 2021, 79, 105451.	16.0	17
2	USID and Pycroscopy – Open Source Frameworks for Storing and Analyzing Imaging and Spectroscopy Data. Microscopy and Microanalysis, 2019, 25, 220-221.	0.4	27
3	Investigation of Strain in Core@shell Electrocatalysts with ADF-STEM and 4D STEM Scanning Nanodiffraction. Microscopy and Microanalysis, 2019, 25, 1980-1981.	0.4	0
4	Few-cycle Regime Atomic Force Microscopy. Scientific Reports, 2019, 9, 12721.	3.3	7
5	Ultrafast current imaging by Bayesian inversion. Nature Communications, 2018, 9, 513.	12.8	14
6	Feature extraction via similarity search: application to atom finding and denoising in electron and scanning probe microscopy imaging. Advanced Structural and Chemical Imaging, 2018, 4, 3.	4.0	31
7	Data mining for better material synthesis: The case of pulsed laser deposition of complex oxides. Journal of Applied Physics, 2018, 123, .	2.5	29
8	Dynamic Modes in Kelvin Probe Force Microscopy: Band Excitation and G-Mode. Springer Series in Surface Sciences, 2018, , 49-99.	0.3	3
9	Decoupling Mesoscale Functional Response in PLZT across the Ferroelectric–Relaxor Phase Transition with Contact Kelvin Probe Force Microscopy and Machine Learning. ACS Applied Materials & Interfaces, 2018, 10, 42674-42680.	8.0	8
10	Improved spatial resolution for spot sampling in thermal desorption atomic force microscopy – mass spectrometry via rapid heating functions. Nanoscale, 2017, 9, 5708-5717.	5.6	9
11	Direct Imaging of the Relaxation of Individual Ferroelectric Interfaces in a Tensile–strained Film. Advanced Electronic Materials, 2017, 3, 1600508.	5.1	7
12	Full Information Acquisition in Scanning Probe Microscopy. Microscopy Today, 2017, 25, 34-45.	0.3	3
13	Improving superconductivity in BaFe <sub>2</sub> As <sub>2</sub> -based crystals by cobalt clustering and electronic uniformity. Scientific Reports, 2017, 7, 949.	3.3	13
14	Rapid Measurement of I-V Curves via Complete Information Acquisition. Microscopy and Microanalysis, 2017, 23, 192-193.	0.4	0
15	Pycroscopy - An Open Source Approach to Microscopy and Microanalysis in the Age of Big Data and Open Science. Microscopy and Microanalysis, 2017, 23, 224-225.	0.4	6
16	Decoding Apparent Ferroelectricity in Perovskite Nanofibers. ACS Applied Materials & Interfaces, 2017, 9, 42131-42138.	8.0	6
17	G-mode - Full Information Capture Applied to Scanning Probe Microscopy. Microscopy and Microanalysis, 2017, 23, 184-185.	0.4	1
18	Tip-Based Nanofabrication for Scalable Manufacturing. Micromachines, 2017, 8, 90.	2.9	46

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19	Submicron Spatial Resolution in Thermal Desorption Mass Spectrometry via Rapid Heating Functions using Thermal AFM Probes. <i>Microscopy and Microanalysis</i> , 2016, 22, 368-369.	0.4	1
20	Rapid mapping of polarization switching through complete information acquisition. <i>Nature Communications</i> , 2016, 7, 13290.	12.8	21
21	Unraveling the Mechanism of Nanoscale Mechanical Reinforcement in Glassy Polymer Nanocomposites. <i>Nano Letters</i> , 2016, 16, 3630-3637.	9.1	142
22	Imaging via complete cantilever dynamic detection: general dynamic mode imaging and spectroscopy in scanning probe microscopy. <i>Nanotechnology</i> , 2016, 27, 414003.	2.6	14
23	BEAM: A Computational Workflow System for Managing and Modeling Material Characterization Data in HPC Environments. <i>Procedia Computer Science</i> , 2016, 80, 2276-2280.	2.0	17
24	Big, Deep, and Smart Data in Scanning Probe Microscopy. <i>ACS Nano</i> , 2016, 10, 9068-9086.	14.6	103
25	Full data acquisition in Kelvin Probe Force Microscopy: Mapping dynamic electric phenomena in real space. <i>Scientific Reports</i> , 2016, 6, 30557.	3.3	47
26	Multifrequency spectrum analysis using fully digital G Mode-Kelvin probe force microscopy. <i>Nanotechnology</i> , 2016, 27, 105706.	2.6	36
27	Full information acquisition in piezoresponse force microscopy. <i>Applied Physics Letters</i> , 2015, 107, 263102.	3.3	28
28	Silicon nano-mechanical resonators fabricated by using tip-based nanofabrication. <i>Nanotechnology</i> , 2014, 25, 275301.	2.6	13
29	Parallel nanoimaging and nanolithography using a heated microcantilever array. <i>Nanotechnology</i> , 2014, 25, 014001.	2.6	21
30	Parallelization of thermochemical nanolithography. <i>Nanoscale</i> , 2014, 6, 1299-1304.	5.6	41
31	An investigation of heat transfer between a microcantilever and a substrate for improved thermal topography imaging. <i>Nanotechnology</i> , 2014, 25, 365501.	2.6	6
32	Multifunctional atomic force microscope cantilevers with Lorentz force actuation and self-heating capability. <i>Nanotechnology</i> , 2014, 25, 395501.	2.6	18
33	Parallel nanoimaging using an array of 30 heated microcantilevers. <i>RSC Advances</i> , 2014, 4, 24747-24754.	3.6	8
34	Heated atomic force cantilever closed loop temperature control and application to high speed nanotopography imaging. <i>Sensors and Actuators A: Physical</i> , 2013, 192, 27-33.	4.1	10
35	Heated atomic force microscope cantilever with high resistivity for improved temperature sensitivity. <i>Sensors and Actuators A: Physical</i> , 2013, 201, 141-147.	4.1	11
36	Fast nanotopography imaging using a high speed cantilever with integrated heater "thermometer". <i>Nanotechnology</i> , 2013, 24, 135501.	2.6	5

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37	Fabrication of arbitrarily shaped silicon and silicon oxide nanostructures using tip-based nanofabrication. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 06FJ01.	1.2	19
38	HEATED ATOMIC FORCE MICROSCOPE CANTILEVERS AND THEIR APPLICATIONS. Annual Review of Heat Transfer, 2013, 16, 287-326.	1.0	59
39	Nanometer-scale flow of molten polyethylene from a heated atomic force microscope tip. Nanotechnology, 2012, 23, 215301.	2.6	45
40	Ultrananocrystalline diamond tip integrated onto a heated atomic force microscope cantilever. Nanotechnology, 2012, 23, 495302.	2.6	13
41	Improved Nanotopography Sensing via Temperature Control of a Heated Atomic Force Microscope Cantilever. IEEE Sensors Journal, 2011, 11, 2664-2670.	4.7	14
42	Nanofabrication using heated probe tips. , 2011, , .		0
43	Six-fold improvement in nanotopography sensing via temperature control of a heated atomic force microscope cantilever. , 2010, , .		0