

# Rakesh Kumar

## List of Publications by Year in descending order

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48  
papers

953  
citations

471371

17  
h-index

454834

30  
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49  
docs citations

49  
times ranked

1025  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Behavior of Si Magic Clusters on Si(111) Surfaces. <i>Physical Review Letters</i> , 1999, 83, 120-123.	2.9	82
2	The Glycine-Alanine Dipeptide Repeat from C9orf72 Hexanucleotide Expansions Forms Toxic Amyloids Possessing Cell-to-Cell Transmission Properties. <i>Journal of Biological Chemistry</i> , 2016, 291, 4903-4911.	1.6	73
3	Diffusion of Single Hydrogen Atoms on Si(111)-(7 $\times$ 7) Surfaces. <i>Physical Review Letters</i> , 1998, 80, 5584-5587.	2.9	72
4	Exchange-Barrier Effects on Nucleation and Growth of Surfactant-Mediated Epitaxy. <i>Physical Review Letters</i> , 1998, 80, 4229-4232.	2.9	59
5	Interface-Induced Ordering of Gas Molecules Confined in a Small Space. <i>Scientific Reports</i> , 2014, 4, 7189.	1.6	56
6	Direct Observation of Reaction-Limited Aggregation on Semiconductor Surfaces. <i>Physical Review Letters</i> , 1999, 83, 1191-1194.	2.9	50
7	Nucleation processes of nanobubbles at a solid/water interface. <i>Scientific Reports</i> , 2016, 6, 24651.	1.6	48
8	Gas field ion source from an Ir <sup>+</sup> W <sup>+</sup> 111 $\text{\AA}$ single-atom tip. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	47
9	High coverage phases of Pb on the Si(111) surface: structures and phase transitions. <i>Surface Science</i> , 1995, 323, 241-257.	0.8	45
10	Observation of Finite-Size Effects on a Structural Phase Transition of 2D Nanoislands. <i>Physical Review Letters</i> , 2004, 93, 106101.	2.9	37
11	Direct Observation of Electromigration of Si Magic Clusters on Si(111) Surfaces. <i>Physical Review Letters</i> , 2000, 84, 5792-5795.	2.9	30
12	Galectin-1 Restricts Vascular Smooth Muscle Cell Motility Via Modulating Adhesion Force and Focal Adhesion Dynamics. <i>Scientific Reports</i> , 2018, 8, 11497.	1.6	28
13	Adsorption of Cd and Cr ions from industrial wastewater using Ca doped Ni <sup>2+</sup> Zn nanoferrites: Synthesis, characterization and isotherm analysis. <i>Ceramics International</i> , 2022, 48, 18048-18056.	2.3	27
14	Crystal Growth and Magnetic Properties of Topological Nodal-Line Semimetal GdSbTe with Antiferromagnetic Spin Ordering. <i>Inorganic Chemistry</i> , 2019, 58, 11730-11737.	1.9	26
15	High-Resolution Characterization of Preferential Gas Adsorption at the Graphene <sup>+</sup> Water Interface. <i>Langmuir</i> , 2016, 32, 11164-11171.	1.6	25
16	Self-Assembly of MinE on the Membrane Underlies Formation of the MinE Ring to Sustain Function of the Escherichia coli Min System. <i>Journal of Biological Chemistry</i> , 2014, 289, 21252-21266.	1.6	18
17	Dynamic behavior of Si magic clusters on Si(111) surfaces. <i>Surface Science</i> , 2002, 514, 309-318.	0.8	17
18	Demountable Single-Atom Electron Source. <i>E-Journal of Surface Science and Nanotechnology</i> , 2005, 3, 412-416.	0.1	17

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19	Atomic Force Microscopy Characterization of Protein Fibrils Formed by the Amyloidogenic Region of the Bacterial Protein MinE on Mica and a Supported Lipid Bilayer. PLoS ONE, 2015, 10, e0142506.	1.1	17
20	Growth mechanism and morphology of Ge on Pb covered Si(111) surfaces. Surface Science, 1998, 410, L741-L747.	0.8	16
21	Nucleation and Growth of Ge at Pb/Si(111) Surfaces: Reaction-Limited Aggregation. Japanese Journal of Applied Physics, 2000, 39, 4100-4109.	0.8	16
22	Three-dimensional surface topography of graphene by divergent beam electron diffraction. Nature Communications, 2017, 8, 14440.	5.8	16
23	Preparation of Single-Atom Tips and Their Field Emission Behaviors. E-Journal of Surface Science and Nanotechnology, 2006, 4, 233-238.	0.1	15
24	Nucleation and growth of Si on Pb monolayer covered Si(111) surfaces. Surface Science, 2011, 605, 1249-1256.	0.8	10
25	Imaging soft matters in water with torsional mode atomic force microscopy. Ultramicroscopy, 2013, 135, 121-125.	0.8	10
26	Study of the dynamics of point defects at Si(111)- $\sqrt{7}\times\sqrt{7}$ surfaces with scanning tunneling microscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2632-2640.	0.9	9
27	Model for surfactant-mediated growth of Ge on Pb-covered Si(111) surfaces. Physical Review B, 2000, 63, .	1.1	9
28	Hydrogen-Adsorption Induced Atomic Rearrangement of a Pb Monolayer on Si(111). Physical Review Letters, 2005, 94, 045505.	2.9	9
29	Optical imaging module for astigmatic detection system. Review of Scientific Instruments, 2016, 87, 053706.	0.6	9
30	Lateral Force Microscopy of Interfacial Nanobubbles: Friction Reduction and Novel Frictional Behavior. Scientific Reports, 2018, 8, 3125.	1.6	8
31	High-sensitivity imaging with lateral resonance mode atomic force microscopy. Nanoscale, 2016, 8, 18421-18427.	2.8	7
32	Emerging Roles of Air Gases in Lipid Bilayers. Small, 2018, 14, e1802133.	5.2	7
33	Investigating states of gas in water encapsulated between graphene layers. Chemical Science, 2021, 12, 2635-2645.	3.7	7
34	Structural and Optical Identification of Planar Side-Chain Stacking P3HT Nanowires. Macromolecules, 2021, 54, 10750-10757.	2.2	7
35	Analysis of island morphology in a model for Pb-mediated growth of Ge on Si(111). Physical Review B, 2001, 64, .	1.1	6
36	Biased diffusion of Si magic clusters on Si(111) surface. Journal of Applied Physics, 2005, 97, 023522.	1.1	5

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37	A horizontal-type scanning near-field optical microscope with torsional mode operation toward high-resolution and non-destructive imaging of soft materials. Review of Scientific Instruments, 2020, 91, 073703.	0.6	4
38	Manipulation of single Si adatoms and observation of fast diffusion of Si dimers on a Pb-covered Si(111) surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 041405.	0.9	3
39	Adsorption and dynamics of Si atoms at the monolayer Pb/Si(111) surface. Physical Review B, 2017, 95, .	1.1	2
40	Non-classical nucleation pathways revealed by scanning tunneling microscopy of epitaxy of covalent materials. Applied Surface Science, 2020, 500, 143986.	3.1	2
41	AFM pickup head with holographic optical element (HOE). , 2010, , .		1
42	Effects of Dissolved Gases on the Amyloid Fibril Morphology. Langmuir, 2021, 37, 516-523.	1.6	1
43	A Soft Incommensurate Reconstruction on Pb/Si(111). Materials Research Society Symposia Proceedings, 1994, 355, 153.	0.1	0
44	Novel three-dimensional beam tracking system for stationary-sample type atomic force microscopy. , 0, , .		0
45	Fabrication of ultra-sharp single atom tips. , 2010, , .		0
46	An electron source possessing spatial and temporal coherence: A niobium nanoemitter. , 2016, , .		0
47	Transmission Electron Microscopy of Gas-Supersaturated Water Encapsulated in Graphene Liquid Cells. Microscopy and Microanalysis, 2019, 25, 1742-1743.	0.2	0
48	DIRECT OBSERVATION OF SILICON MAGIC CLUSTERS ON SILICON (111) SURFACES. , 2001, , .		0