

Anupam Roy

List of Publications by Year in descending order

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61
papers

1,330
citations

471371

17
h-index

360920

35
g-index

61
all docs

61
docs citations

61
times ranked

2651
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and Electrical Properties of MoTe ₂ and MoSe ₂ Grown by Molecular Beam Epitaxy. ACS Applied Materials & Interfaces, 2016, 8, 7396-7402.	4.0	189
2	Air Stable Doping and Intrinsic Mobility Enhancement in Monolayer Molybdenum Disulfide by Amorphous Titanium Suboxide Encapsulation. Nano Letters, 2015, 15, 4329-4336.	4.5	167
3	Progress in Contact, Doping and Mobility Engineering of MoS ₂ : An Atomically Thin 2D Semiconductor. Crystals, 2018, 8, 316.	1.0	118
4	Two-dimensional weak anti-localization in Bi ₂ Te ₃ thin film grown on Si(111)-(7×7) surface by molecular beam epitaxy. Applied Physics Letters, 2013, 102, .	1.5	72
5	Perpendicular Magnetic Anisotropy and Spin Glass-like Behavior in Molecular Beam Epitaxy Grown Chromium Telluride Thin Films. ACS Nano, 2015, 9, 3772-3779.	7.3	70
6	A sub-1-volt analog metal oxide memristive-based synaptic device with large conductance change for energy-efficient spike-based computing systems. Applied Physics Letters, 2016, 109, .	1.5	63
7	Experimental evidence of exciton capture by mid-gap defects in CVD grown monolayer MoSe ₂ . Npj 2D Materials and Applications, 2017, 1, .	3.9	56
8	Nonpolar Resistive Switching of Multilayer hBN-Based Memories. Advanced Electronic Materials, 2020, 6, 1900979.	2.6	42
9	Characteristics and mechanism study of cerium oxide based random access memories. Applied Physics Letters, 2015, 106, .	1.5	37
10	Carrier Trapping by Oxygen Impurities in Molybdenum Diselenide. ACS Applied Materials & Interfaces, 2018, 10, 1125-1131.	4.0	37
11	Strong spin-orbit coupling and Zeeman spin splitting in angle dependent magnetoresistance of Bi ₂ Te ₃ . Applied Physics Letters, 2014, 104, .	1.5	29
12	Nanodot to nanowire: A strain-driven shape transition in self-organized endotaxial CoSi ₂ on Si(100). Applied Physics Letters, 2012, 100, .	1.5	27
13	Tailored MoS ₂ nanorods: a simple microwave assisted synthesis. Materials Research Express, 2017, 4, 115012.	0.8	25
14	Accelerated carrier recombination by grain boundary/edge defects in MBE grown transition metal dichalcogenides. APL Materials, 2018, 6, .	2.2	25
15	Angular dependence of magnetization reversal in epitaxial chromium telluride thin films with perpendicular magnetic anisotropy. Journal of Magnetism and Magnetic Materials, 2017, 437, 72-77.	1.0	21
16	Two-Dimensional to Three-Dimensional Growth of Transition Metal Diselenides by Chemical Vapor Deposition: Interplay between Fractal, Dendritic, and Compact Morphologies. ACS Applied Materials & Interfaces, 2020, 12, 15885-15892.	4.0	20
17	Surface roughness of ion-bombarded Si(100) surfaces: Roughening and smoothing with the same roughness exponent. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 1276-1281.	0.6	17
18	Short-Term Relaxation in HfO ₂ /CeO ₂ Resistive Random Access Memory With Selector. IEEE Electron Device Letters, 2017, 38, 871-874.	2.2	16

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19	Intra-domain periodic defects in monolayer MoS ₂ . Applied Physics Letters, 2017, 110, .	1.5	16
20	Wafer-Scalable Single-Layer Amorphous Molybdenum Trioxide. ACS Nano, 2022, 16, 3756-3767.	7.3	16
21	Formation of aligned nanosilicide structures in a MBE-grown Au/Si(110) system: a real-time temperature-dependent TEM study. Journal of Physics Condensed Matter, 2009, 21, 205403.	0.7	14
22	Large area chemical vapor deposition growth of monolayer MoSe ₂ and its controlled sulfurization to MoS ₂ . Journal of Materials Research, 2016, 31, 917-922.	1.2	14
23	Two-Step Growth of Uniform Monolayer MoS ₂ Nanosheets by Metal-Organic Chemical Vapor Deposition. ACS Omega, 2021, 6, 10343-10351.	1.6	14
24	Laser Spike Annealing for Shallow Junctions in Ge CMOS. IEEE Transactions on Electron Devices, 2017, 64, 346-352.	1.6	13
25	Patterns in Ge cluster growth on clean and oxidized Si(111)-(7 \times 7) surfaces. Surface Science, 2012, 606, 777-783.	0.8	12
26	Fractal pattern formation in thermal grooving at grain boundaries in Ag films on Si(111) surfaces. Thin Solid Films, 2012, 520, 5086-5090.	0.8	12
27	Growth of lateral graphene/h-BN heterostructure on copper foils by chemical vapor deposition. Nanotechnology, 2019, 30, 03LT01.	1.3	12
28	Direct growth of MoS ₂ on electrolytic substrate and realization of high-mobility transistors. Physical Review Materials, 2021, 5, .	0.9	12
29	Electronic structure of Ag-adsorbed nanowire-like stripes on Si(110) $\sqrt{16\times 2}$ surfaces. I. An in situ STM and STS experiment. Physical Review B, 2008, 77, .	1.1	11
30	Growth mechanisms for wire-like epitaxial gold silicide islands on Si(110) surfaces. Applied Surface Science, 2011, 257, 3248-3252.	3.1	11
31	Estimation of diffusion coefficient by photoemission electron microscopy in ion-implanted nanostructures. Applied Surface Science, 2009, 256, 536-540.	3.1	10
32	Ge growth on self-affine fractal Si surfaces: influence of surface roughness. Journal Physics D: Applied Physics, 2009, 42, 145303.	1.3	10
33	Evidence of Formation of Superdense Nonmagnetic Cobalt. Scientific Reports, 2017, 7, 41856.	1.6	10
34	Localization and interaction effects of epitaxial Bi ₂ Se ₃ bulk states in two-dimensional limit. Journal of Applied Physics, 2016, 120, 164301.	1.1	9
35	Growth of (111)-Ag and (111) oriented Ag islands on Ge/Si(111) surfaces. Applied Surface Science, 2009, 256, 508-512.	3.1	8
36	Growth of oriented crystalline Ag nanoislands on air-exposed Si(001) surfaces. Applied Surface Science, 2009, 256, 361-364.	3.1	8

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37	Uniformity of epitaxial nanostructures of CoSi ₂ via defect control of the Si (111) surface. Thin Solid Films, 2013, 534, 296-300.	0.8	8
38	Self-organized one-atom thick fractal nanoclusters via field-induced atomic transport. Journal of Applied Physics, 2013, 114, 064304.	1.1	8
39	Negative differential resistance in electron tunneling in ultrathin films near the two-dimensional limit. Journal of Applied Physics, 2013, 113, 034308.	1.1	8
40	Intermediate Cu-O-Si Phase in the Cu-SiO ₂ /Si(111) System: Growth, Elemental, and Electrical Studies. ACS Omega, 2021, 6, 23826-23836.	1.6	8
41	Self-organized trench-island structures in epitaxial cobalt silicide growth on Si(111). Surface Science, 2014, 620, 23-29.	0.8	7
42	Recent progress on measurement of spin-charge interconversion in topological insulators using ferromagnetic resonance. APL Materials, 2021, 9, .	2.2	7
43	Versatile Large-Area Custom-Feature van der Waals Epitaxy of Topological Insulators. ACS Nano, 2017, 11, 7457-7467.	7.3	6
44	Structural and magnetic properties of molecular beam epitaxy grown chromium selenide thin films. Physical Review Materials, 2020, 4, .	0.9	5
45	Growth of oriented Ag nanocrystals on air-oxidized Si surfaces: An in-situ reflection high energy electron diffraction study. Thin Solid Films, 2011, 520, 853-860.	0.8	4
46	A reaction diffusion model of pattern formation in clustering of adatoms on silicon surfaces. AIP Advances, 2012, 2, 042101.	0.6	4
47	Growth of epitaxially oriented Ag nanoislands on air-oxidized Si(111)-(7 \times 7) surfaces: Influence of short-range order on the substrate. Applied Surface Science, 2012, 258, 2255-2265.	3.1	4
48	Electronic structure of Ag-adsorbed nanowire-like stripes on Si(110)-(16 \times 2) surfaces. II. A one-dimensional tight-binding model with Green's function approach. Physical Review B, 2008, 77, .	1.1	3
49	Detection of current induced spin polarization in epitaxial Bi ₂ Te ₃ thin film. Applied Physics Letters, 2017, 110, .	1.5	3
50	Ultrascale Ge islands with low diameter-to-height aspect ratio on Si(100)-(2 \times 1) surfaces. Applied Surface Science, 2009, 256, 356-360.	3.1	2
51	Lateral straggling and its influence on lateral diffusion in implantation with a focused ion beam. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 856-860.	0.6	2
52	First-principles simulation of oxygen vacancy migration in HfO_2 , CeO_2 , and at their interfaces for applications in resistive random-access memories. Journal of Computational Electronics, 2016, 15, 741-748.	1.3	2
53	Desorption of Ag from Grain Boundaries in Ag Film on Br and H-Passivated Si(111) Surfaces. , 2011, , .		1
54	Epitaxial orientation of nanoscale Ag islands grown on air-oxidized Si(110)-(5 \times 1) surfaces. Surface and Interface Analysis, 2012, 44, 513-518.	0.8	1

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55	The effect of exclusion on nonlinear reaction-diffusion system in inhomogeneous media. Physica A: Statistical Mechanics and Its Applications, 2014, 405, 52-62.	1.2	1
56	Cerium oxide based bipolar resistive switching memory with low operation voltage and high resistance ratio. , 2015, , .		1
57	Nanoscale doping of compound semiconductors by solid phase dopant diffusion. Applied Physics Letters, 2016, 108, 122107.	1.5	1
58	Devices and defects in two-dimensional materials: outlook and perspectives. , 2022, , 339-401.		1
59	Self-organized Growth of Cobalt Nanostructures on Ag-Si (111)-7 \times 7 Surfaces. , 2011, , .		0
60	Thin, relaxed Si _{1-x} Ge _x virtual substrates on Si grown using C-doped Ge buffers. Applied Physics Letters, 2014, 105, 152107.	1.5	0
61	Silicon nanodots via sputtering of Si(111)-7 \times 7 surfaces and post-annealing. Materials Today: Proceedings, 2021, 47, 1617-1620.	0.9	0