

Soumya Jyoti Ray

List of Publications by Year in descending order

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46
papers

941
citations

430442

18
h-index

476904

29
g-index

46
all docs

46
docs citations

46
times ranked

999
citing authors

#	ARTICLE	IF	CITATIONS
1	First-principles study of MoS ₂ , phosphorene and graphene based single electron transistor for gas sensing applications. <i>Sensors and Actuators B: Chemical</i> , 2016, 222, 492-498.	4.0	180
2	Two-dimensional van der Waals spinterfaces and magnetic-interfaces. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	100
3	Hybrid Metal-Semiconductor Electron Pump for Quantum Metrology. <i>Physical Review X</i> , 2013, 3, .	2.8	37
4	Muon-spin rotation measurements of the vortex state in SrO_4 : Type-1.5 superconductivity, vortex clustering, and a crossover from a triangular to a square vortex lattice. <i>Physical Review B</i> , 2014, 89, .	1.1	34
5	Bi-stimuli assisted engineering and control of magnetic phase in monolayer CrOCl. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 12806-12813.	1.3	34
6	Detection of gas molecule using C ₃ N island single electron transistor. <i>Carbon</i> , 2019, 144, 235-240.	5.4	33
7	High efficiency spin filtering in magnetic phosphorene. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 5893-5901.	1.3	28
8	Unconventional strain-dependent conductance oscillations in pristine phosphorene. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13508-13516.	1.3	26
9	Dramatic magnetic phase designing in phosphorene. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 23713-23719.	1.3	26
10	Graphene mediated resistive switching and thermoelectric behavior in lanthanum cobaltate. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	25
11	DNA and RNA detection using graphene and hexagonal boron nitride based nanosensor. <i>Carbon</i> , 2021, 173, 493-500.	5.4	25
12	Size-dependent reversal of grains in perpendicular magnetic recording media measured by small-angle polarized neutron scattering. <i>Applied Physics Letters</i> , 2010, 97, 112503.	1.5	24
13	Single molecule transistor based nanopore for the detection of nicotine. <i>Journal of Applied Physics</i> , 2014, 116, 244307.	1.1	22
14	Single molecular transistor as a superior gas sensor. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	22
15	Double gated single molecular transistor for charge detection. <i>Journal of Applied Physics</i> , 2014, 116, 034307.	1.1	21
16	<i>Ab initio</i> studies of phosphorene island single electron transistor. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 195302.	0.7	21
17	Superconductivity and Dirac fermions in 112 \bar{a} phase pnictides. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600163.	0.7	21
18	Proximity-Induced Colossal Conductivity Modulation in Phosphorene. <i>Physical Review Applied</i> , 2019, 11, .	1.5	21

#	ARTICLE	IF	CITATIONS
19	Structural and resistive switching behaviour in lanthanum strontium manganite - Reduced graphene oxide nanocomposite system. <i>Journal of Alloys and Compounds</i> , 2020, 815, 152213.	2.8	20
20	Two-dimensional C ₃ N based sub-10 nanometer biosensor. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 11452-11459.	1.3	20
21	Humidity sensor using a single molecular transistor. <i>Journal of Applied Physics</i> , 2015, 118, 044307.	1.1	19
22	Single atom impurity in a single molecular transistor. <i>Journal of Applied Physics</i> , 2014, 116, 154302.	1.1	17
23	Electronic phase-crossover and room temperature ferromagnetism in a two-dimensional (2D) spin lattice. <i>RSC Advances</i> , 2021, 11, 946-952.	1.7	16
24	Measurement of the spatial extent of inverse proximity in a Py/Nb/Py superconducting trilayer using low-energy muon-spin rotation. <i>Physical Review B</i> , 2014, 89, .	1.1	14
25	Spin-selective response tunability in two-dimensional nanomagnet. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 415301.	0.7	14
26	Suppression of the antinodal coherence of superconducting(Bi,Pb)2(Sr,La)2CuO6+ δ as revealed by muon spin rotation and angle-resolved photoemission. <i>Physical Review B</i> , 2010, 82, .	1.1	13
27	Temperature-dependent resistive switching behaviour of an oxide memristor. <i>Materials Letters</i> , 2021, 303, 130451.	1.3	13
28	Supreme enhancement of ferromagnetism in a spontaneous-symmetry-broken 2D nanomagnet. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 105001.	1.3	12
29	Muon-Spin Rotation Measurements of an Unusual Vortex-Glass Phase in the Layered Superconductor $\text{Bi}_{2.15}\text{Sr}_8\text{O}_{11}$. <i>Physical Review Letters</i> , 2013, 110, 107004.	2.9	11
30	Charge transport and resistive switching in a 2D hybrid interface. <i>Materials Research Bulletin</i> , 2021, 139, 111195.	2.7	11
31	The effect of graphene and reduced graphene oxide on the resistive switching behavior of La _{0.7} Ba _{0.3} MnO ₃ . <i>Materials Today Communications</i> , 2021, 26, 102040.	0.9	10
32	Stimuli assisted electronic, magnetic and optical phase control in CrOBr monolayer. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2022, 143, 115332.	1.3	9
33	Small-angle polarized neutron studies of perpendicular magnetic recording media. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	8
34	Gate engineered performance of single molecular transistor. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	8
35	Role of an oxide interface in a resistive switch. <i>Current Applied Physics</i> , 2022, 35, 16-23.	1.1	7
36	Tunable electronic and magnetic properties of two-dimensional magnetic semiconductor VBr ₂ . <i>Computational Materials Science</i> , 2022, 209, 111319.	1.4	5

#	ARTICLE	IF	CITATIONS
37	Resistive switching phenomena: a probe for the tracing of secondary phase in manganite. Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	5
38	Modeling of an adiabatic tunable-barrier electron pump. , 2014, , .		3
39	Stoner enhanced paramagnetic influence on superconductivity in a superconductor/metallic heterostructure. Physica C: Superconductivity and Its Applications, 2013, 487, 67-71.	0.6	2
40	Single electron transistor based nanosensor for DNA and RNA detection. Journal of Applied Physics, 2020, 128, 194302.	1.1	2
41	A quantum device driven by an on-chip CMOS ring oscillator. , 2014, , .		1
42	Detection of CO using a graphene-island-based single-electron transistor. Nanomaterials and Energy, 2019, 8, 135-138.	0.1	1
43	Characterization of hybrid metal/semiconductor electron pumps for quantum metrology. , 2014, , .		0
44	High temperature magnetic ordering in manganese doped phosphorene nanoribbon. AIP Conference Proceedings, 2020, , .	0.3	0
45	Effect of temperature and magnetic field in resistive switching behavior of La _{0.7} Ca _{0.3} MnO ₃ .rGO nano-composite. AIP Conference Proceedings, 2020, , .	0.3	0
46	Biosensing using C3N nanoribbon. AIP Conference Proceedings, 2020, , .	0.3	0