Gopinadhan Kalon

List of Publications by Citations

60	3,836	28	61
papers	citations	h-index	g-index
63	4,491	8.4	4.99
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
60	Tunable sieving of ions using graphene oxide membranes. *Nature Nanotechnology*, **2017**, 12, 546-550	28.7	960
59	Surface-energy engineering of graphene. *Langmuir*, **2010**, 26, 3798-802	4	383
58	Molecular transport through capillaries made with atomic-scale precision. *Nature*, **2016**, 538, 222-225	50.4	325
57	Size effect in ion transport through angstrom-scale slits. *Science*, **2017**, 358, 511-513	33.3	246
56	Magnetism in MoS2 induced by proton irradiation. *Applied Physics Letters*, **2012**, 101, 102103	3.4	170
55	Complete steric exclusion of ions and proton transport through confined monolayer water. *Science*, **2019**, 363, 145-148	33.3	131
54	Surface energy and wettability of van der Waals structures. *Nanoscale*, **2016**, 8, 5764-70	7.7	112
53	Metal-insulator transition in SrTiO(3-x) thin films induced by frozen-out carriers. *Physical Review Letters*, **2011**, 107, 146802	7.4	105
52	Anisotropic two-dimensional electron gas at the LaAlO□/SrTiO□(110) interface. *Nature Communications*, **2013**, 4, 1838	17.4	82
51	The effect of layer number and substrate on the stability of graphene under MeV proton beam irradiation. *Carbon*, **2011**, 49, 1720-1726	10.4	73
50	High temperature ferromagnetism in Mn-doped SnO2 nanocrystalline thin films. *Journal of Applied Physics*, **2007**, 102, 113513	2.5	71
49	Extremely large magnetoresistance in few-layer graphene/boron-nitride heterostructures. *Nature Communications*, **2015**, 6, 8337	17.4	70
48	Selective growth of single phase VO2(A, B, and M) polymorph thin films. *APL Materials*, **2015**, 3, 026101	5.7	63
47	Electronic correlation and strain effects at the interfaces between polar and nonpolar complex oxides. *Physical Review B*, **2012**, 86,	3.3	58
46	The role of charge traps in inducing hysteresis: Capacitance□voltage measurements on top gated bilayer graphene. *Applied Physics Letters*, **2011**, 99, 083109	3.4	57
45	Magnetoresistance of two-dimensional and three-dimensional electron gas in LaAlO3/SrTiO3 heterostructures: Influence of magnetic ordering, interface scattering, and dimensionality. *Physical Review B*, **2011**, 84,	3.3	53
44	Mega-electron-volt proton irradiation on supported and suspended graphene: A Raman spectroscopic layer dependent study. *Journal of Applied Physics*, **2011**, 110, 084309	2.5	52

43	A comparative study on the structure and properties of nanolayered TiN/NbN and TiAlN/TiN multilayer coatings prepared by reactive direct current magnetron sputtering. *Thin Solid Films*, **2006**, 503, 158-166	2.2	49
42	Liquid-Gated High Mobility and Quantum Oscillation of the Two-Dimensional Electron Gas at an Oxide Interface. *ACS Nano*, **2016**, 10, 4532-7	16.7	41
41	Current-driven spin orbit field in LaAlO3/SrTiO3 heterostructures. *Applied Physics Letters*, **2014**, 105, 162405	3.4	41
40	Fourfold oscillation in anisotropic magnetoresistance and planar Hall effect at the LaAlO3/SrTiO3 heterointerfaces: Effect of carrier confinement and electric field on magnetic interactions. *Physical Review B*, **2013**, 87,	3.3	40
39	Two-dimensional superconductor-insulator quantum phase transitions in an electron-doped cuprate. *Physical Review B*, **2015**, 92,	3.3	38
38	Giant magnetoresistance in single-layer graphene flakes with a gate-voltage-tunable weak antilocalization. *Physical Review B*, **2013**, 88,	3.3	34
37	Electron Transport at the TiO□Surfaces of Rutile, Anatase, and Strontium Titanate: The Influence of Orbital Corrugation. *ACS Applied Materials & Interfaces*, **2015**, 7, 24616-21	9.5	32
36	Perfect proton selectivity in ion transport through two-dimensional crystals. *Nature Communications*, **2019**, 10, 4243	17.4	31
35	Black Phosphorus Transistors with Near Band Edge Contact Schottky Barrier. *Scientific Reports*, **2015**, 5, 18000	4.9	29
34	Ambipolar bistable switching effect of graphene. *Applied Physics Letters*, **2010**, 97, 262105	3.4	28
33	Proton and Li-Ion Permeation through Graphene with Eight-Atom-Ring Defects. *ACS Nano*, **2020**, 14, 7280-7286	16.7	27
32	Large area resist-free soft lithographic patterning of graphene. *Small*, **2013**, 9, 711-5	11	27
31	Disorder-free sputtering method on graphene. *AIP Advances*, **2012**, 2, 032121	1.5	27
30	Transport of hydrogen isotopes through interlayer spacing in van der Waals crystals. *Nature Nanotechnology*, **2018**, 13, 468-472	28.7	26
29	Gate Tunable In- and Out-of-Plane Spin□Orbit Coupling and Spin-Splitting Anisotropy at LaAlO3/SrTiO3 (110) Interface. *Advanced Electronic Materials*, **2015**, 1, 1500114	6.4	24
28	Multifunctional Ti1⊠TaxO2: Ta doping or alloying?. *Applied Physics Letters*, **2011**, 98, 072111	3.4	23
27	Parallel-leaky capacitance equivalent circuit model for MgO magnetic tunnel junctions. *Applied Physics Letters*, **2012**, 101, 162404	3.4	22
26	Reversible metal-insulator transition in LaAlO3 thin films mediated by intragap defects: An alternative mechanism for resistive switching. *Physical Review B*, **2011**, 84,	3.3	19

25	Tailoring the electronic properties of SrRuO3 films in SrRuO3/LaAlO3 superlattices. *Applied Physics Letters*, **2012**, 101, 223105	3.4	17
24	Atomically flat interface between a single-terminated LaAlO3 substrate and SrTiO3 thin film is insulating. *AIP Advances*, **2012**, 2, 012147	1.5	17
23	Correlation of nanoscale behaviour of forces and macroscale surface wettability. *Nanoscale*, **2016**, 8, 15597-603	7.7	17
22	Long-range magnetic coupling across a polar insulating layer. *Nature Communications*, **2016**, 7, 11015	17.4	16
21	Tunable metal□insulator transitions in bilayer graphene by thermal annealing. *Applied Physics Letters*, **2011**, 98, 233108	3.4	16
20	Interfacial Rashba magnetoresistance of the two-dimensional electron gas at the LaAlO3/SrTiO3 interface. *Physical Review B*, **2017**, 96,	3.3	13
19	Biaxial strain effect of spin dependent tunneling in MgO magnetic tunnel junctions. *Applied Physics Letters*, **2012**, 101, 042407	3.4	13
18	Tunneling characteristics of graphene. *Applied Physics Letters*, **2010**, 97, 252102	3.4	13
17	Unexpected observation of spatially separated Kondo scattering and ferromagnetism in Ta alloyed anatase TiO2 thin films. *Scientific Reports*, **2015**, 5, 13011	4.9	12
16	A study of room-temperature ferromagnetism in transition metal and fluorine-doped spray-pyrolyzed SnO2 thin films. *Journal of Magnetism and Magnetic Materials*, **2009**, 321, 957-962	2.8	11
15	Metal-insulator transition at a depleted LaAlO3/SrTiO3 interface: Evidence for charge transfer induced by SrTiO3 phase transitions. *Applied Physics Letters*, **2011**, 99, 172103	3.4	11
14	Investigation of interface properties of sputter deposited TiN/CrN superlattices by low angle x-ray reflectivity. *Journal Physics D: Applied Physics*, **2008**, 41, 205409	3	10
13	Interplay between carrier and cationic defect concentration in ferromagnetism of anatase Ti1-xTaxO2 thin films. *AIP Advances*, **2012**, 2, 012148	1.5	9
12	NSOM/HRTEM Characterization of Biologically Derived Cubo□Octahedral Nanomagnets. *IEEE Transactions on Magnetics*, **2009**, 45, 4861-4864	2	8
11	Evidence of carrier mediated room temperature ferromagnetism in transparent semiconducting Sn1□CoxO2□thin films. *Journal of Physics Condensed Matter*, **2008**, 20, 125208	1.8	8
10	Effect of Nb and Ta substitution on donor electron transport and ultrafast carrier dynamics in anatase TiO2 thin films. *Journal of Materials Chemistry C*, **2015**, 3, 6329-6333	7.1	6
9	Universal scaling of resistivity in bilayer graphene. *Applied Physics Letters*, **2012**, 101, 223111	3.4	6
8	On the blueshift in Sn1□CoxO2□transparent ferromagnetic semiconductor thin films. *Journal of Physics Condensed Matter*, **2007**, 19, 016216	1.8	5

7	Stochastic nonlinear electrical characteristics of graphene. *Applied Physics Letters*, **2013**, 102, 033101	3.4	4
6	Magnetic field control of hysteretic switching in Co/Al2O3 multilayers by carrier injection. *AIP Advances*, **2011**, 1, 042158	1.5	4
5	Selective transport of water molecules through interlayer spaces in graphite.. *Nature Communications*, **2022**, 13, 498	17.4	4
4	Reply to: Random interstratification in hydrated graphene oxide membranes and implications for seawater desalination.. *Nature Nanotechnology*, **2022**,	28.7	2
3	Nickel-phosphide contact for effective Schottky barrier modulation in black phosphorus p-channel transistors **2016**,		2
2	Effect of Ta Alloying on the Optical, Electronic, and Magnetic Properties of TiO2 Thin Films **2013**, 133-162		1
1	Electric-field-induced magnetization changes in Co/Al2O3 granular multilayers. *Physical Review B*, **2013**, 87,	3.3	1