Vishal Panchal

List of Publications by Citations

38 papers	1,009 citations	18 h-index	31 g-index
40 ext. papers	1,142 ext. citations	6.1 avg, IF	4.26 L-index

#	Paper	IF	Citations
38	Standardization of surface potential measurements of graphene domains. *Scientific Reports*, **2013**, 3, 2597	4.9	164
37	Water on graphene: review of recent progress. *2D Materials*, **2018**, 5, 022001	5.9	88
36	Epitaxial Graphene and Graphene–Based Devices Studied by Electrical Scanning Probe Microscopy. *Crystals*, **2013**, 3, 191-233	2.3	60
35	Visualization of Grain Structure and Boundaries of Polycrystalline Graphene and Two-Dimensional Materials by Epitaxial Growth of Transition Metal Dichalcogenides. *ACS Nano*, **2016**, 10, 3233-40	16.7	52
34	Effects of humidity on the electronic properties of graphene prepared by chemical vapour deposition. *Carbon*, **2016**, 103, 273-280	10.4	49
33	Carrier type inversion in quasi-free standing graphene: studies of local electronic and structural properties. *Scientific Reports*, **2015**, 5, 10505	4.9	45
32	Express optical analysis of epitaxial graphene on SiC: impact of morphology on quantum transport. *Nano Letters*, **2013**, 13, 4217-23	11.5	44
31	Small epitaxial graphene devices for magnetosensing applications. *Journal of Applied Physics*, **2012**, 111, 07E509	2.5	42
30	Surface-Mediated Aligned Growth of Monolayer MoS and In-Plane Heterostructures with Graphene on Sapphire. *ACS Nano*, **2018**, 12, 10032-10044	16.7	42
29	Hydrogen-Assisted Epitaxial Growth of Monolayer Tungsten Disulfide and Seamless Grain Stitching. *Chemistry of Materials*, **2018**, 30, 403-411	9.6	38
28	Atmospheric doping effects in epitaxial graphene: correlation of local and global electrical studies. *2D Materials*, **2016**, 3, 015006	5.9	37
27	Excitonic Effects in Tungsten Disulfide Monolayers on Two-Layer Graphene. *ACS Nano*, **2016**, 10, 7840-6	16.7	34
26	Detection of Ultralow Concentration NO in Complex Environment Using Epitaxial Graphene Sensors. *ACS Sensors*, **2018**, 3, 1666-1674	9.2	34
25	Visualisation of edge effects in side-gated graphene nanodevices. *Scientific Reports*, **2014**, 4, 5881	4.9	26
24	Water Affinity to Epitaxial Graphene: The Impact of Layer Thickness. *Advanced Materials Interfaces*, **2015**, 2, 1500252	4.6	26
23	Confocal laser scanning microscopy for rapid optical characterization of graphene. *Communications Physics*, **2018**, 1,	5.4	24
22	Magnetic scanning gate microscopy of graphene Hall devices (invited). *Journal of Applied Physics*, **2014**, 115, 172606	2.5	20

21	Local electric field screening in bi-layer graphene devices. *Frontiers in Physics*, **2014**, 2,	3.9	20
20	Electrical Homogeneity Mapping of Epitaxial Graphene on Silicon Carbide. *ACS Applied Materials & Interfaces*, **2018**, 10, 31641-31647	9.5	18
19	Ultrasmall particle detection using a submicron Hall sensor. *Journal of Applied Physics*, **2010**, 107, 09E708	2.5	18
18	Magnetic Scanning Probe Calibration Using Graphene Hall Sensor. *IEEE Transactions on Magnetics*, **2013**, 49, 3520-3523	2	17
17	Tuning epitaxial graphene sensitivity to water by hydrogen intercalation. *Nanoscale*, **2017**, 9, 3440-3448	7.7	16
16	Calibration of multi-layered probes with low/high magnetic moments. *Scientific Reports*, **2017**, 7, 7224	4.9	14
15	Low contact resistance in epitaxial graphene devices for quantum metrology. *AIP Advances*, **2015**, 5, 087134	1.5	13
14	Epitaxial Graphene Sensors for Detection of Small Magnetic Moments. *IEEE Transactions on Magnetics*, **2013**, 49, 97-100	2	11
13	Selective phase growth and precise-layer control in MoTe2. *Communications Materials*, **2020**, 1,	6	10
12	Probing the nanoscale origin of strain and doping in graphene-hBN heterostructures. *2D Materials*, **2019**, 6, 015022	5.9	8
11	Comparison of active and passive methods for the infrared scanning near-field microscopy. *Applied Physics Letters*, **2019**, 114, 153101	3.4	7
10	In-depth microscopic characterisation of the weld faying interface revealing stress-induced metallurgical transformations during friction stir spot welding. *International Journal of Machine Tools and Manufacture*, **2021**, 164, 103716	9.4	7
9	Modeling of graphene Hall effect sensors for microbead detection. *Journal of Applied Physics*, **2015**, 117, 17B732	2.5	6
8	Towards standardisation of contact and contactless electrical measurements of CVD graphene at the macro-, micro- and nano-scale. *Scientific Reports*, **2020**, 10, 3223	4.9	6
7	Surface potential variations in epitaxial graphene devices investigated by Electrostatic Force Spectroscopy **2012**,		5
6	Multifunctional semiconductor micro-Hall devices for magnetic, electric, and photo-detection. *Applied Physics Letters*, **2015**, 107, 233504	3.4	4
5	Qualitative analysis of scanning gate microscopy on epitaxial graphene. *2D Materials*, **2019**, 6, 025023	5.9	2
4	Observation of Coulomb blockade in nanostructured epitaxial bilayer graphene on SiC. *Carbon*, **2017**, 119, 426-430	10.4	1

3	Carbon Nanotube Bolometer: Transport Properties and Noise Characteristics. *Solid State Phenomena*, **2012**, 190, 510-513	0.4	1
2	A Self-Assembled Graphene Ribbon Device on SiC. *ACS Applied Electronic Materials*, **2020**, 2, 204-212	4	0
1	Highly resonant graphene plasmon hotspots in complex nanoresonator geometries. *2D Materials*, **2019**, 6, 021003	5.9	