

Satender Kataria

List of Publications by Year in descending order

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73
papers

2,143
citations

346980

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263392

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73
docs citations

73
times ranked

4657
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene in 2D/3D Heterostructure Diodes for High Performance Electronics and Optoelectronics. Advanced Electronic Materials, 2021, 7, 2001210.	2.6	16
2	Correlating Nanocrystalline Structure with Electronic Properties in 2D Platinum Diselenide. Advanced Functional Materials, 2021, 31, 2102929.	7.8	17
3	Graphene Diodes: Graphene in 2D/3D Heterostructure Diodes for High Performance Electronics and Optoelectronics (Adv. Electron. Mater. 7/2021). Advanced Electronic Materials, 2021, 7, 2170025.	2.6	0
4	Dependable Contact Related Parameter Extraction in Grapheneâ€“Metal Junctions. Advanced Electronic Materials, 2020, 6, 2000386.	2.6	14
5	Correlation of Material Structure and Electronic Properties in 2D Platinum-Diselenide-based Devices. , 2020, , .		0
6	Capacitanceâ€“Voltage (C/V) Characterization of Grapheneâ€“Silicon Heterojunction Photodiodes. Advanced Optical Materials, 2020, 8, 2000169.	3.6	10
7	Dependability Assessment of Transfer Length Method to Extract the Metalâ€“Graphene Contact Resistance. IEEE Transactions on Semiconductor Manufacturing, 2020, 33, 210-215.	1.4	7
8	Nonvolatile Resistive Switching in Nanocrystalline Molybdenum Disulfide with Ionâ€“Based Plasticity. Advanced Electronic Materials, 2020, 6, 1900892.	2.6	19
9	Electron Transport across Vertical Silicon/MoS ₂ /Graphene Heterostructures: Towards Efficient Emitter Diodes for Graphene Base Hot Electron Transistors. ACS Applied Materials & Interfaces, 2020, 12, 9656-9663.	4.0	10
10	Dielectric Surface Charge Engineering for Electrostatic Doping of Graphene. ACS Applied Electronic Materials, 2020, 2, 1235-1242.	2.0	13
11	Highly Responsive Flexible Photodetectors Based on MOVPE Grown Uniform Few-Layer MoS ₂ . ACS Photonics, 2020, 7, 1388-1395.	3.2	60
12	(Invited) Transistors, Memristors and Optoelectronics Based on Two-Dimensional Molybdenum Disulfide. ECS Meeting Abstracts, 2020, MA2020-01, 1297-1297.	0.0	0
13	Transfer printing of nanomaterials and microstructures using a wire bonder. Journal of Micromechanics and Microengineering, 2019, 29, 125014.	1.5	1
14	DFT study of graphene doping due to metal contacts. , 2019, , .		2
15	Role of Substrate Surface Morphology on the Performance of Graphene Inks for Flexible Electronics. ACS Applied Electronic Materials, 2019, 1, 1909-1916.	2.0	10
16	Improved understanding of metalâ€“graphene contacts. Microelectronic Engineering, 2019, 216, 111035.	1.1	10
17	Few-Layer MoS ₂ /a-Si:H Heterojunction Pin-Photodiodes for Extended Infrared Detection. ACS Photonics, 2019, 6, 1372-1378.	3.2	15
18	Large Scale MoS ₂ /Si Photodiodes with Graphene Transparent Electrodes. , 2019, , .		2

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19	High Responsivity and Quantum Efficiency of Graphene/Silicon Photodiodes Achieved by Interdigitating Schottky and Gated Regions. ACS Photonics, 2019, 6, 107-115.	3.2	68
20	Monolithically Integrated Perovskite Semiconductor Lasers on Silicon Photonic Chips by Scalable Top-Down Fabrication. Nano Letters, 2018, 18, 6915-6923.	4.5	98
21	All CVD Boron Nitride Encapsulated Graphene FETs With CMOS Compatible Metal Edge Contacts. IEEE Transactions on Electron Devices, 2018, 65, 4129-4134.	1.6	27
22	Dielectric Properties and Ion Transport in Layered MoS ₂ Grown by Vapor-Phase Sulfurization for Potential Applications in Nanoelectronics. ACS Applied Nano Materials, 2018, 1, 6197-6204.	2.4	25
23	Highly Sensitive Electromechanical Piezoresistive Pressure Sensors Based on Large-Area Layered PtSe ₂ Films. Nano Letters, 2018, 18, 3738-3745.	4.5	125
24	Direct observation of grain boundaries in graphene through vapor hydrofluoric acid (VHF) exposure. Science Advances, 2018, 4, eaar5170.	4.7	25
25	Reliability analysis of the metal-graphene contact resistance extracted by the transfer length method. , 2018, , .		3
26	Redefining Responsivity in Graphene-based Schottky Diodes. , 2018, , .		0
27	All CVD Boron Nitride Encapsulated Graphene FETs. , 2018, , .		0
28	Noninvasive Scanning Raman Spectroscopy and Tomography for Graphene Membrane Characterization. Nano Letters, 2017, 17, 1504-1511.	4.5	17
29	Growth-Induced Strain in Chemical Vapor Deposited Monolayer MoS ₂ : Experimental and Theoretical Investigation. Advanced Materials Interfaces, 2017, 4, 1700031.	1.9	50
30	High Photocurrent in Gated Graphene-Silicon Hybrid Photodiodes. ACS Photonics, 2017, 4, 1506-1514.	3.2	78
31	Enhanced Intrinsic Voltage Gain in Artificially Stacked Bilayer CVD Graphene Field Effect Transistors. Annalen Der Physik, 2017, 529, 1700106.	0.9	2
32	Wafer-Scale Statistical Analysis of Graphene FETs-Part I: Wafer-Scale Fabrication and Yield Analysis. IEEE Transactions on Electron Devices, 2017, 64, 3919-3926.	1.6	9
33	Wafer-Scale Statistical Analysis of Graphene Field-Effect Transistors-Part II: Analysis of Device Properties. IEEE Transactions on Electron Devices, 2017, 64, 3927-3933.	1.6	14
34	Defects in layered vapor-phase grown MOS ₂ . , 2017, , .		0
35	(Invited) Scalable Growth of Two-Dimensional Materials - a Prerequisite for Process Integration. ECS Transactions, 2017, 80, 259-270.	0.3	0
36	High Voltage Gain Inverters From Artificially Stacked Bilayer CVD Graphene FETs. IEEE Electron Device Letters, 2017, 38, 1747-1750.	2.2	4

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37	Temperature dependence of contact resistance for gold-graphene contacts. , 2017, , .		4
38	(Invited) Scalable Growth of Two-Dimensional Materials “ a Prerequisite for Process Integration. ECS Meeting Abstracts, 2017, , .	0.0	0
39	Graphene and Two-Dimensional Materials for Optoelectronic Applications. Electronics (Switzerland), 2016, 5, 13.	1.8	72
40	A systematic study of charge trapping in single-layer double-gated GFETs. , 2016, , .		0
41	Improved voltage gain in mechanically stacked bilayer graphene field effect transistors. , 2016, , .		0
42	Graphene transfer methods for the fabrication of membrane-based NEMS devices. Microelectronic Engineering, 2016, 159, 108-113.	1.1	40
43	Contact resistance study of various metal electrodes with CVD graphene. Solid-State Electronics, 2016, 125, 234-239.	0.8	54
44	Contact resistance Study of “edge-contacted” metal-graphene interfaces. , 2016, , .		9
45	Chemical Vapor Deposited Graphene for Opto-Electronic Applications. Journal of Nano Research, 2016, 39, 57-68.	0.8	0
46	Spectral sensitivity of graphene/silicon heterojunction photodetectors. Solid-State Electronics, 2016, 115, 207-212.	0.8	65
47	Carrier mediated reduction of stiffness in nanoindented crystalline Si(100). Journal of Applied Physics, 2015, 118, 035702.	1.1	4
48	Systematic study of the palladium-graphene contact. , 2015, , .		0
49	Spectral sensitivity of a graphene/silicon pn-junction photodetector. , 2015, , .		6
50	Residual Metallic Contamination of Transferred Chemical Vapor Deposited Graphene. ACS Nano, 2015, 9, 4776-4785.	7.3	250
51	Resistive graphene humidity sensors with rapid and direct electrical readout. Nanoscale, 2015, 7, 19099-19109.	2.8	252
52	Systematic comparison of metal contacts on CVD graphene. , 2015, , .		8
53	Chemical vapor deposited graphene: From synthesis to applications. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2439-2449.	0.8	81
54	Band Gap Engineering of Chemical Vapor Deposited Graphene by <i>in Situ</i> BN Doping. ACS Nano, 2013, 7, 1333-1341.	7.3	252

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55	Different Morphologies of Zinc Oxide Nanostructures Grown Under Similar Deposition Conditions During Vaporâ€“Liquidâ€“Solid Growth. <i>Nanoscience and Nanotechnology Letters</i> , 2013, 5, 1224-1230.	0.4	6
56	Evaluation of nano-mechanical properties of hard coatings on a soft substrate. <i>Thin Solid Films</i> , 2012, 522, 297-303.	0.8	23
57	Evolution of coefficient of friction with deposition temperature in diamond like carbon thin films. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	24
58	Particle stability in model ODS steel irradiated up to 100dpa at 600Â°C: TEM and nano-indentation investigation. <i>Journal of Nuclear Materials</i> , 2012, 426, 240-246.	1.3	31
59	Raman imaging on highâ€“quality graphene grown by hotâ€“filament chemical vapor deposition. <i>Journal of Raman Spectroscopy</i> , 2012, 43, 1864-1867.	1.2	29
60	Synthesis, characterization and evaluation of titanium carbonitride surface layers with varying concentrations of carbon and nitrogen. <i>Ceramics International</i> , 2012, 38, 2253-2259.	2.3	17
61	Nanocrystalline TiN coatings with improved toughness deposited by pulsing the nitrogen flow rate. <i>Surface and Coatings Technology</i> , 2012, 206, 4279-4286.	2.2	49
62	Tribological properties of nitrogen ion implanted steel. <i>Wear</i> , 2012, 274-275, 60-67.	1.5	22
63	Growth Orientation Dependent Hardness for Epitaxial Wurtzite InN Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 5170-5174.	0.9	5
64	Contact mechanical studies on continuous wave CO2 laser beam weld of mild steel with ambient and under water medium. <i>Materials & Design</i> , 2010, 31, 3610-3617.	5.1	7
65	Nanomechanical characterization of thermally evaporated Cr thin films â€” FE analysis of the substrate effect. <i>Thin Solid Films</i> , 2010, 519, 312-318.	0.8	13
66	Evolution of deformation and friction during multimode scratch test on TiN coated D9 steel. <i>Surface and Coatings Technology</i> , 2010, 205, 922-927.	2.2	32
67	Tribological and deformation behaviour of titanium coating under different sliding contact conditions. <i>Wear</i> , 2010, 269, 797-803.	1.5	22
68	Effect of adhesive and cohesive strength on the tribological behaviour of nonâ€“reactively sputtered TiC thin films. <i>Surface and Interface Analysis</i> , 2010, 42, 7-12.	0.8	4
69	Cyclic loading effect on tribological tests during intermetallic contacts of long chained hydrocarbons. <i>Tribology - Materials, Surfaces and Interfaces</i> , 2010, 4, 167-176.	0.6	0
70	Deformation of SS 304 LN during Scratch Test and Influence on Evolution of Coefficient of Friction. <i>Advances in Tribology</i> , 2009, 2009, 1-4.	2.1	3
71	Nano-graphitic clustering and break down of phonon selection rule in diamond-like carbon films. <i>Solid State Communications</i> , 2009, 149, 1881-1883.	0.9	6
72	Nanoindentation and Scratch Studies on Magnetron Sputtered Ti Thin Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 5476-5479.	0.9	1

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73	Microstructural Studies of Nanocomposite Thin Films of Ni/CrN Prepared by Reactive Magnetron Sputtering. Journal of Nanoscience and Nanotechnology, 2009, 9, 5592-5595.	0.9	1