Rohan Dhall

List of Publications by Year
in descending order

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33	1,378	623734 14	526287 27
papers	citations	h-index	g-index

34	34	34	2817
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Black Arsenicâ€“Phosphorus: Layered Anisotropic Infrared Semiconductors with Highly Tunable Compositions and Properties. Advanced Materials, 2015, 27, 4423-4429.	21.0	378
2	Nanoscale temperature mapping in operating microelectronic devices. Science, 2015, 347, 629-632.	12.6	253
3	Probing thermal expansion of graphene and modal dispersion at low-temperature using graphene nanoelectromechanical systems resonators. Nanotechnology, 2010, 21, 165204.	2.6	201
4	Direct Bandgap Transition in Manyâ€Layer MoS₂ by Plasmaâ€Induced Layer Decoupling. Advanced Materials, 2015, 27, 1573-1578.	21.0	102
5	Layer Control of WSe₂ via Selective Surface Layer Oxidation. ACS Nano, 2016, 10, 6836-6842.	14.6	77
6	Indirect Band Gap Emission by Hot Electron Injection in Metal/MoS₂ and Metal/WSe₂ Heterojunctions. Nano Letters, 2015, 15, 3977-3982.	9.1	60
7	Beneficial CuO Phase Segregation in the Ternary p-Type Oxide Photocathode CuBi₂O₄. ACS Applied Energy Materials, 2019, 2, 4111-4117.	5.1	48
8	CuBi₂O₄: Electronic Structure, Optical Properties, and Photoelectrochemical Performance Limitations of the Photocathode. Chemistry of Materials, 2021, 33, 934-945.	6.7	45
9	Tuning mechanical modes and influence of charge screening in nanowire resonators. Physical Review B, 2010, 81, .	3.2	39
10	Clamping Instability and van der Waals Forces in Carbon Nanotube Mechanical Resonators. Nano Letters, 2014, 14, 2426-2430.	9.1	24
11	Highly efficient, high speed vertical photodiodes based on few-layer MoS ₂. 2D Materials, 2017, 4, 015004.	4.4	22
12	Charge storage mechanism and degradation of P2-type sodium transition metal oxides in aqueous electrolytes. Journal of Materials Chemistry A, 2018, 6, 22266-22276.	10.3	22
13	Charge neutral MoS2 field effect transistors through oxygen plasma treatment. Journal of Applied Physics, 2016, 120, .	2.5	20
14	Imaging interfacial electrical transport in grapheneâ€“MoS2 heterostructures with electron-beam-induced-currents. Applied Physics Letters, 2015, 107, 223104.	3.3	18
15	Zener Tunneling and Photocurrent Generation in Quasi-Metallic Carbon Nanotube pn-Devices. Nano Letters, 2013, 13, 5129-5134.	9.1	13
16	Strong Circularly Polarized Photoluminescence from Multilayer MoS₂ Through Plasma Driven Direct-Gap Transition. ACS Photonics, 2016, 3, 310-314.	6.6	12
17	Nonideal Diode Behavior and Bandgap Renormalization in Carbon Nanotube p-n Junctions. IEEE Nanotechnology Magazine, 2014, 13, 41-45.	2.0	9
18	Measuring nanoscale thermal gradients in suspended MoS2 with STEM-EELS. Applied Physics Letters, 2019, 115, .	3.3	9

#	Article	IF	Citations
19	Enhanced photoluminescence in air-suspended carbon nanotubes by oxygen doping. Applied Physics Letters, 2016, 109, .	3.3	7
20	Evidence for structural phase transitions and large effective band gaps in quasi-metallic ultra-clean suspended carbon nanotubes. Nano Research, 2013, 6, 736-744.	10.4	5
21	Pronounced electron-phonon interactions in ultraclean suspended carbon nanotubes. Physical Review B, 2012, 86, .	3.2	4
22	Electromechanical resonance behavior of suspended single-walled carbon nanotubes under high bias voltages. Journal of Micromechanics and Microengineering, 2011, 21, 085008.	2.6	2
23	Taguchi analysis of parameters for small-diameter single wall carbon nanotube growth. AIP Advances, 2017, 7, 095301.	1.3	2
24	Emergence of the Collective Oscillations in Electron Energy Loss Spectra of d-electrons in III-V Nitrides. Microscopy and Microanalysis, 2017, 23, 376-377.	0.4	2
25	Defect-Induced Photoluminescence Enhancement and Corresponding Transport Degradation in Individual Suspended Carbon Nanotubes. Physical Review Applied, 2018, 9, .	3.8	2
26	Probing collective oscillation ofd-orbital electrons at the nanoscale. Applied Physics Letters, 2018, 112, 061102.	3.3	1
27	Improved Temperature Determination from Plasmon Energy Shifts in Aluminum. Microscopy and Microanalysis, 2014, 20, 200-201.	0.4	0
28	Applications of Plasmon Energy Expansion Thermometry. Microscopy and Microanalysis, 2015, 21, 663-664.	0.4	0
29	Introduction to Plasmon Energy Expansion Thermometry. Microscopy and Microanalysis, 2015, 21, 1907-1908.	0.4	0
30	Nanoscale Mapping of Interfacial Electrical Transport in Graphene-MoS 2 Heterostructures with STEM-EBIC. Microscopy and Microanalysis, 2016, 22, 1552-1553.	0.4	0
31	Structure and Chemistry of Oxide Surface Reconstructions in III-Nitrides Observed using STEM EELS. Microscopy and Microanalysis, 2017, 23, 1444-1445.	0.4	0
32	Novel FIB-less Fabrication of Electrical Devices for in-situ Biasing. Microscopy and Microanalysis, 2017, 23, 1502-1503.	0.4	0
33	A Novel Template for in-situ Microscopy to Reveal Ferroelectric Switching Mechanisms Across Length Scales. Microscopy and Microanalysis, 2018, 24, 1808-1809.	0.4	0