

Md Sherajul Islam

List of Publications by Year in descending order

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Vacancy-Induced Thermal Transport and Tensile Mechanical Behavior of Monolayer Honeycomb BeO. ACS Omega, 2022, 7, 4525-4537.	1.6	12
2	Numerical Investigations of Nanowire Gate-All-Around Negative Capacitance GaAs/InN Tunnel FET. IEEE Access, 2022, 10, 30323-30334.	2.6	9
3	Tensile Mechanical Behavior and the Fracture Mechanism in Monolayer Group-III Nitrides XN (X= Ga, Tj ETQq1 1 0.784314 rgBT /Over	1.6	7
4	Tribo-Piezoelectricity in Group III Nitride Bilayers: A Density Functional Theory Investigation. ACS Applied Materials & Interfaces, 2022, 14, 20856-20865.	4.0	7
5	Germanene/2D-SiC van der Waals heterobilayer: Structural features and tunable electronic properties. Materials Today Communications, 2021, 26, 101718.	0.9	22
6	RF-MBE growth and orientation control of GaN on epitaxial graphene. Results in Physics, 2021, 20, 103714.	2.0	3
7	Germanene/2D-AIP van der Waals heterostructure: Tunable structural and electronic properties. AIP Advances, 2021, 11, .	0.6	22
8	Proposal for dispersion compensating square-lattice photonic crystal fiber. Optoelectronics Letters, 2021, 17, 160-164.	0.4	3
9	Numerical design of high-performance WS ₂ /metal/WS ₂ /graphene heterostructure based surface plasmon resonance refractive index sensor. Results in Physics, 2021, 23, 104021.	2.0	30
10	Silicene/ZnI ₂ van der Waals heterostructure: tunable structural and electronic properties. Nanotechnology, 2021, 32, 305707.	1.3	8
11	Thermal transport in monolayer zinc-sulfide: effects of length, temperature and vacancy defects. Nanotechnology, 2021, 32, 435703.	1.3	9
12	Phonon transmission of vacancy disordered armchair silicene nanoribbon. Optoelectronics Letters, 2021, 17, 454-458.	0.4	5
13	Temperature- and Defect-Induced Uniaxial Tensile Mechanical Behaviors and the Fracture Mechanism of Two-Dimensional Silicon Germanide. ACS Omega, 2021, 6, 21861-21871.	1.6	10
14	Superior tunable photocatalytic properties for water splitting in two dimensional GeC/SiC van der Waals heterobilayers. Scientific Reports, 2021, 11, 17739.	1.6	20
15	Strong tribo-piezoelectric effect in bilayer indium nitride (InN). Scientific Reports, 2021, 11, 18669.	1.6	15
16	Dual source negative capacitance GaSb/InGaAsSb/InAs heterostructure based vertical TFET with steep subthreshold swing and high on-off current ratio. Results in Physics, 2021, 29, 104796.	2.0	7
17	Chirality, temperature, and vacancy effects on mechanical behavior of monolayer zinc-sulfide. Computational Materials Science, 2021, 200, 110824.	1.4	8
18	Numerical Analysis of Gate-All-Around HfO ₂ /TiO ₂ /HfO ₂ High-K Dielectric Based WSe ₂ NCFET With Reduced Sub-Threshold Swing and High On/Off Ratio. IEEE Access, 2021, 9, 116254-116264.	2.6	6

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19	Tunable electronic properties in bismuthene/2D silicon carbide van der Waals heterobilayer. Japanese Journal of Applied Physics, 2020, 59, SCCC03.	0.8	18
20	Behaviour of Raman B1 (high) mode and evaluation of crystalline quality in the $\text{In}_x\text{Ga}_{1-x}\text{N}$ alloys grown by RF-MBE. Bulletin of Materials Science, 2020, 43, 1.	0.8	0
21	Phonon localization in single wall carbon nanotube: Combined effect of ^{13}C isotope and vacancies. Journal of Applied Physics, 2020, 128, 045108.	1.1	4
22	Exceptional in-plane and interfacial thermal transport in graphene/2D-SiC van der Waals heterostructures. Scientific Reports, 2020, 10, 22050.	1.6	21
23	Electro-Optical Properties of Sputtered Calcium Lead Titanate Thin Films for Pyroelectric Detection. Micromachines, 2020, 11, 1073.	1.4	3
24	Vacancy-induced thermal transport in two-dimensional silicon carbide: a reverse non-equilibrium molecular dynamics study. Physical Chemistry Chemical Physics, 2020, 22, 13592-13602.	1.3	35
25	HfO ₂ /TiO ₂ /HfO ₂ tri-layer high-K gate oxide based MoS ₂ negative capacitance FET with steep subthreshold swing. AIP Advances, 2020, 10, .	0.6	9
26	Temperature-induced localized exciton dynamics in mixed lead-tin based $\text{CH}_3\text{NH}_3\text{Pb}_{1-x}\text{Sn}_x\text{I}_3$ perovskite materials. AIP Advances, 2020, 10, 065331.	0.6	2
27	Combined effect of ^{13}C isotope and vacancies on the phonon properties in AB stacked bilayer graphene. Carbon, 2020, 168, 22-31.	5.4	10
28	RF-MBE and MOVPE $\text{In}_x\text{Ga}_{1-x}\text{N}$ films over the entire composition range: A study on growth method dependence. Superlattices and Microstructures, 2020, 140, 106448.	1.4	1
29	Molecular beam epitaxy of InAlN alloys in the whole compositional range. AIP Advances, 2020, 10, 015053.	0.6	4
30	Interlayer vacancy effects on the phonon modes in AB stacked bilayer graphene nanoribbon. Current Applied Physics, 2020, 20, 572-581.	1.1	9
31	Molecular dynamics study of thermal transport in single-layer silicon carbide nanoribbons. AIP Advances, 2020, 10, .	0.6	21
32	Lateral and flexural thermal transport in stanene/2D-SiC van der Waals heterostructure. Nanotechnology, 2020, 31, 505702.	1.3	27
33	Electronic properties of Ge/2D-GaP heterobilayer: A first-principles investigation. , 2020, , .		3
34	Temperature Induced Anomalous Exciton Localization Dynamics of $\text{CH}_3\text{NH}_3\text{Pb}(\text{I}_{1-x}\text{Br}_x)_3$ Perovskite Material: A Monte Carlo Simulation. , 2020, , .		1
35	Anomalous temperature dependent thermal conductivity of two-dimensional silicon carbide. Nanotechnology, 2019, 30, 445707.	1.3	49
36	Widely tunable electronic properties in graphene/two-dimensional silicon carbide van der Waals heterostructures. Journal of Computational Electronics, 2019, 18, 836-845.	1.3	23

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37	Deconvolution of Raman spectra of disordered monolayer graphene: an approach to probe the phonon modes. Bulletin of Materials Science, 2019, 42, 1.	0.8	5
38	Permeability Analysis of Pure Water across Nano Porous Graphene. , 2019, , .		1
39	Spin-orbit coupling effects on the electronic structure of two-dimensional silicon carbide. Journal of Computational Electronics, 2019, 18, 407-414.	1.3	55
40	Tunable electronic properties in stanene and two dimensional silicon-carbide heterobilayer: A first principles investigation. AIP Advances, 2019, 9, .	0.6	37
41	Vacancy Induced Electronic Properties of Two Dimensional Silicon Carbide: A First Principles Calculation. , 2019, , .		0
42	Halogen Doped Electronic Properties of 2D ZnO: A First Principles Study. , 2019, , .		0
43	Anisotropic mechanical behavior of two dimensional silicon carbide: effect of temperature and vacancy defects. Materials Research Express, 2019, 6, 125073.	0.8	33
44	Temperature dependent localization dynamics of excitons in Mg _{0.14} Zn _{0.86} O alloyed semiconductor. Physica B: Condensed Matter, 2019, 558, 127-130.	1.3	1
45	Temperature induced anomalous exciton localization in InGaN/GaN and GaN/AlInN quantum wells. Journal of Computational Electronics, 2018, 17, 373-381.	1.3	4
46	Vacancy and curvature effects on the phonon properties of single wall carbon nanotube. Japanese Journal of Applied Physics, 2018, 57, 02CB08.	0.8	9
47	Effect of ¹⁰ B isotope and vacancy defects on the phonon modes of two-dimensional hexagonal boron nitride. Japanese Journal of Applied Physics, 2018, 57, 02CB04.	0.8	6
48	Temperature Induced Localization Dynamics of Exciton in ZnO/MgZnO and CdZnO/MgZnO Quantum Well. , 2018, , .		0
49	Effects of Edge Termination on the Electronic Properties of Zigzag Boron Nitride Nanoribbons. , 2018, , .		0
50	A Study on Phonon Transmission of (10,0) Silicon Nanotube with Atomic Vacancies. , 2018, , .		1
51	Structural and electronic properties of sublimated graphene on silicon carbide: A First Principle study. , 2018, , .		0
52	First Principle Calculations on the Electronic Properties of Siligraphene. , 2018, , .		0
53	Vacancy Induced Electron-Phonon Interaction of Single Layer Graphene. , 2018, , .		1
54	Probing the neuronal status for cerebrovascular disease using EEG. , 2017, , .		0

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55	Phonon transmission of vacancy defected (10,0) carbon nanotube. , 2017, , .		3
56	Substrate effects on channel temperature distribution of AlGaIn/GaN HEMT. , 2017, , .		2
57	Exciton-phonon scattering effects on photoluminescence of hybrid lead halide perovskite. , 2017, , .		1
58	Numerical simulation of vibrational properties of AGNR with vacancy and stone wales defects. , 2017, , .		0
59	Effect of phosphor distribution on junction temperature reduction in white LEDs. , 2016, , .		0
60	Dynamic performance of graphene field effect transistor with contact resistance. , 2016, , .		1
61	Theoretical analysis of substrate effects on the DC performance of AlGaIn/GaN high electron mobility transistor. , 2016, , .		2
62	A Study on Theoretical Performance of Graphene FET using Analytical Approach with Reference to High Cutoff Frequency. International Journal of Nanoscience, 2016, 15, 1640001.	0.4	8
63	Effectsof photon recycling on the properties of p+ n GaAs solar cell. , 2015, , .		1
64	Numerical analysis on vibrational properties of vacancy-type disordered graphane. , 2015, , .		0
65	Realistic edge shape effects on the vibrational properties of graphene nanoribbons. , 2015, , .		3
66	DC and RF characteristics of graphene FET using analytical approach. , 2015, , .		1
67	Numerical Analysis on Phonon Localization of Vacancy Type Disordered Graphene. Journal of Circuits, Systems and Computers, 2015, 24, 1540002.	1.0	5
68	Analysis on band structure and NEGF approach for graphene as a channel material. , 2015, , .		2
69	Polarized micro Raman scattering spectroscopy for curved edges of epitaxial graphene. Applied Physics Letters, 2014, 105, 243103.	1.5	6
70	Effect of boron and nitrogen doping with native point defects on the vibrational properties of graphene. Computational Materials Science, 2014, 94, 35-43.	1.4	20
71	The effect of quantum dot size, interdot distance and indium content on In_xGa_{1-x}N/GaN QD-IBSC. , 2014, , .		0
72	Vacancy induced phonon properties of hydrogen passivated graphene. , 2014, , .		1

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73	Effect of vacancy defects on phonon properties of hydrogen passivated graphene nanoribbons. Carbon, 2014, 80, 146-154.	5.4	32
74	Polarized microscopic laser Raman scattering spectroscopy for edge structure of epitaxial graphene and localized vibrational mode. Carbon, 2014, 77, 1073-1081.	5.4	13
75	Analysis of vibrational properties of C-doped hexagonal boron nitride (h-BN). Computational Materials Science, 2014, 94, 225-233.	1.4	10
76	Numerical experiments on phonon properties of isotope and vacancy-type disordered graphene. Diamond and Related Materials, 2013, 40, 115-122.	1.8	12
77	Numerical analysis on vacancy induced vibrational properties of graphene nanoribbons. Computational Materials Science, 2013, 79, 356-361.	1.4	20
78	Design and performance of 1.55 μ m laser using InGaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1825-1828.	0.8	8
79	AlInN/InN metal oxide semiconductor heterostructure field effect transistor. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1983-1987.	0.8	3
80	2DEG properties in InGaN/InN/InGaN-based double channel HEMTs. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1997-2000.	0.8	8
81	High efficiency In _x Ga _{1-x} N-based quantum well solar cell. , 2010, , .		2
82	Charge control studies for an AlInN/InN heterojunction field effect transistor without and with oxide layer. , 2010, , .		0
83	In _x Ga _{1-x} N based multi junction concentrator solar cell. , 2008, , .		0
84	InN-based dual channel high electron mobility transistor. , 2008, , .		1
85	Transport Properties of Insulated Gate AlInN/InN Heterojunction Field Effect Transistor. Advanced Materials Research, 0, 403-408, 64-69.	0.3	0