Neeraj K Jaiswal

List of Publications by Year
in descending order

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81	840	471509	552781
papers	citations	17 h-index	26 g-index

81	81	81	427
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Label-free biosensor using nanogap embedded dielectric modulated schottky tunneling source impact ionization MOS. Microelectronic Engineering, 2016, 149, 129-134.	2.4	54
2	Fe-Doped Armchair Graphene Nanoribbons for Spintronic/Interconnect Applications. IEEE Nanotechnology Magazine, 2013, 12, 685-691.	2.0	51
3	Adsorption of CO gas molecules on zigzag BN/AlN nanoribbons for nano sensor applications. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 532-538.	2.1	43
4	Adsorption of COCl2 gas molecule on armchair boron nitride nanoribbons for nano sensor applications. Microelectronic Engineering, 2015, 146, 62-67.	2.4	39
5	First principles calculations of cobalt doped zigzag graphene nanoribbons. Solid State Communications, 2012, 152, 1489-1492.	1.9	37
6	First-principles investigation of armchair boron nitride nanoribbons for sensing PH3 gas molecules. Superlattices and Microstructures, 2014, 73, 350-358.	3.1	31
7	Inducing half-metallicity with enhanced stability in zigzag graphene nanoribbons via fluorine passivation. Applied Surface Science, 2017, 396, 471-479.	6.1	31
8	Structural stability and electronic properties of Ni-doped armchair graphene nanoribbons. Solid State Communications, 2011, 151, 1490-1495.	1.9	29
9	Realizing Negative Differential Resistance/Switching Phenomena in Zigzag GaN Nanoribbons by Edge Fluorination: A DFT Investigation. Advanced Materials Interfaces, 2017, 4, 1700400.	3.7	29
10	First principles calculations of armchair graphene nanoribbons interacting with Cu atoms. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 44, 75-79.	2.7	28
11	First-Principles Investigation of Pd-Doped Armchair Graphene Nanoribbons as a Potential Rectifier. Journal of Electronic Materials, 2021, 50, 1196-1206.	2.2	27
12	Reconstructed graphene nanoribbon as a sensor for nitrogen based molecules. Applied Surface Science, 2015, 357, 55-59.	6.1	24
13	Edge-Oxidized Germanene Nanoribbons for Nanoscale Metal Interconnect Applications. IEEE Transactions on Electron Devices, 2018, 65, 3893-3900.	3.0	23
14	Chlorine sensing properties of zigzag boron nitride nanoribbons. Solid State Communications, 2014, 185, 41-46.	1.9	21
15	Enhanced metallicity and spin polarization in zigzag graphene nanoribbons with Fe impurities. Physica E: Low-Dimensional Systems and Nanostructures, 2013, 54, 103-108.	2.7	20
16	Possibility of spin-polarized transport in edge fluorinated armchair boron nitride nanoribbons. RSC Advances, 2016, 6, 11014-11022.	3.6	17
17	Tailoring the electronic properties of zigzag graphene nanoribbons via sp/sp edge functionalization with H/F. Organic Electronics, 2017, 51, 25-37.	2.6	17
18	Structural and electronic properties of armchair graphene nanoribbons functionalized with fluorine. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 125949.	2.1	17

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19	First-principle study of NO2 adsorption and detection on the edges of zigzag nitride nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 114, 113575.	2.7	17
20	Tailoring the electronic properties of a Z-shaped graphene field effect transistor via B/N doping. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 710-718.	2.1	16
21	Half-metallicity in armchair boron nitride nanoribbons: A first-principles study. Solid State Communications, 2015, 212, 19-24.	1.9	16
22	First-principles study of sensing SO2 adsorption on IIIâ€“V nitride nanoribbons. Materials Chemistry and Physics, 2020, 242, 122437.	4.0	16
23	First-principle investigations of cove edged GaN nanoribbon for nanoscale resonant tunneling applications. Solid State Communications, 2021, 340, 114486.	1.9	16
24	Prospects of asymmetrically H-terminated zigzag germanene nanoribbons for spintronic application. Applied Surface Science, 2017, 396, 1352-1359.	6.1	15
25	Structural & electronic properties of zigzag silicene nanoribbons with symmetric/asymmetric edge passivations via fluorine and hydrogen. Physica B: Condensed Matter, 2021, 615, 413072.	2.7	15
26	Electronic and Transport Properties of Zigzag Boron Nitride Nanoribbons. Journal of Computational and Theoretical Nanoscience, 2013, 10, 368-375.	0.4	13
27	First-principles investigation of CO2 and NH3 adsorption on antimonene nanoribbons. Materials Today: Proceedings, 2020, 28, 65-69.	1.8	10
28	First-principle investigations of negative differential resistance in zigzag boron nitride nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114861.	2.7	10
29	Selective Edge-Hydrogenated Zigzag Boron Nitride Nanoribbons for Giant Magnetoresistance and Rectifying Behavior. IEEE Transactions on Electron Devices, 2021, 68, 5894-5900.	3.0	9
30	Analytical model for 2DEG charge density in Î²-(Al _x Ga_{1â^'x) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (})<s Technology, 2022, 37, 025002.	2.0	9
31	Structural, electronic, and magnetic properties of Mn-Doped InP nanowire. Superlattices and Microstructures, 2016, 92, 134-142.	3.1	8
32	First-principle insights of CO and NO detection via antimonene nanoribbons. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	8
33	First-Principles Investigations of N-Vacancy Induced Zigzag Boron Nitride Nanoribbons for Nanoscale Resonant Tunneling Applications. Journal of Electronic Materials, 2021, 50, 5664-5681.	2.2	8
34	Giant Magnetoresistance and Rectification Behavior in Fluorinated Zigzag Boron Nitride Nanoribbon for Spintronic Nanodevices. IEEE Nanotechnology Magazine, 2022, 21, 244-250.	2.0	8
35	Density functional insights of iodine interaction with graphene and its nanoribbon with zigzag edges. Physica B: Condensed Matter, 2018, 545, 268-274.	2.7	7
36	Sarin chemisorbent based on cobalt-doped graphene. Applied Surface Science, 2019, 480, 759-764.	6.1	7

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37	First-principle investigations for electronic transport in nitrogen-doped disconnected zigzag graphene nanoribbons. Microelectronic Engineering, 2018, 199, 96-100.	2.4	6
38	Zn-Passivated Zigzag Boron Nitride Nanoribbons for Perfect Spin-Filtering and Negative Differential Resistance Based Devices. IEEE Nanotechnology Magazine, 2022, 21, 299-306.	2.0	6
39	Role of Device Parameters in Optimizing 2DEG Charge Density in Î²-(Al<sub> x) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 66 Analytical Approach. IEEE Transactions on Electron Devices, 2022, 69, 3876-3883.	3.0	6
40	Potential spin-polarized transport in gold-doped armchair graphene nanoribbons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 835-842.	2.1	5
41	Firstâ€principles study of electronic properties of GaN nanowires: Effect of surface orientation, passivation, and Mn doping. Physica Status Solidi (B): Basic Research, 2016, 253, 2185-2196.	1.5	5
42	Intrinsic half metallicity in lithium terminated zigzag graphene nanoribbons. Solid State Communications, 2017, 250, 112-118.	1.9	5
43	First-principles design of nano-porous graphene membranes for efficient separation of halogen gases. Diamond and Related Materials, 2020, 108, 107911.	3.9	5
44	First-principle investigations of zigzag III-V nitride nanoribbons as CS2 scavengers. Applied Surface Science, 2021, 545, 148969.	6.1	5
45	Ab-Initio Study of Transition Metal (Ni) Interaction with Zigzag Graphene Nanoribbons. Journal of Computational and Theoretical Nanoscience, 2012, 9, 555-559.	0.4	4
46	Tailoring the Electronic Structure of Zigzag Graphene Nanoribbons via Cu Impurities. Journal of Computational and Theoretical Nanoscience, 2013, 10, 1441-1445.	0.4	4
47	Enhancing the performance of BN nanosheets as promising anode material for Li-ion batteries with carbon-doping. Journal of Molecular Graphics and Modelling, 2022, 115, 108213.	2.4	4
48	First-principles study of CO adsorption on zigzag ZnO nanoribbons towards nanosensor application. Journal of Molecular Graphics and Modelling, 2022, 116, 108232.	2.4	4
49	First-principles predictions of tunable half metallicity in zigzag GaN nanoribbons with possible applications in CO detection and spintronics. Journal Physics D: Applied Physics, 2022, 55, 405002.	2.8	4
50	COCl₂ Gas Adsorption on Zigzag Boron Nitride Nanoribbons: First Principles Study. Journal of Computational and Theoretical Nanoscience, 2015, 12, 2472-2476.	0.4	3
51	Electronic properties and migration pathways of Cl functionalized zigzag graphene nanoribbons. AIP Conference Proceedings, 2017, , .	0.4	3
52	First principle insights of NO₂ detection via III-V nitride nanoribbons with armchair edges. Nano Express, 2020, 1, 010059.	2.4	3
53	Firstâ€Principles Investigation of Antimonene Nanoribbons for Sensing Toxic NO₂ Gas. Physica Status Solidi (B): Basic Research, 2020, 257, 2000034.	1.5	3
54	Tuning the Electronic Structure of Zigzag Boron Nitride Nanoribbons via sp^{2}/sp^{3} Edge Functionalization. Journal of Electronic Materials, 2022, 51, 3299-3307.	2.2	3

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55	On the evolution and electronic properties of self-assembled gold nanowires. Computational Materials Science, 2017, 130, 222-231.	3.0	2
56	Structural, magnetic and electronic properties of armchair graphene nanoribbons interacting with Co: DFT investigations. Ferroelectrics, 2017, 519, 178-186.	0.6	2
57	Effect of Positional Cu Doping on the Electronic and Transport Properties of Graphene Nanoribbons. Graphene, 2014, 2, 40-51.	0.2	2
58	Comparative Analysis of T-Gate and L-Gate Dielectric Modulated Schottky Tunneling Source Impact Ionization MOS for Label-Free Detection of Toxic Gases. Journal of Nanoelectronics and Optoelectronics, 2018, 13, 501-508.	0.5	2
59	Enhancing metallicity in zigzag graphene nanoribbons with adsorbed/substitutionally doped copper atoms. , 2012, , .		1
60	Transport properties of Ni-interacted armchair graphene nanoribbons. , 2013, , .		1
61	Ab initio study of gold-doped zigzag graphene nanoribbons. Applied Physics A: Materials Science and Processing, 2014, 117, 1997-2008.	2.3	1
62	Electronic properties of armchair graphene nanoribbons doped with Cobalt atoms. IOP Conference Series: Materials Science and Engineering, 2015, 73, 012140.	0.6	1
63	First principles study of Li terminated armchair graphene nanoribbons. Materials Today: Proceedings, 2016, 3, 2241-2246.	1.8	1
64	First-principles study for I-V characteristics of halogen functionalized zigzag graphene nanoribbons. AIP Conference Proceedings, 2019, , .	0.4	1
65	First-principle investigations of Cl decorated armchair GaN nanoribbons. AIP Conference Proceedings, 2020, , .	0.4	1
66	First-principles study of structural and electronic properties of cove-edged zigzag ZnO nanoribbons. Materials Today: Proceedings, 2022, 67, 616-619.	1.8	1
67	First principles study of adsorbed and substitutionally doped Fe atoms in zigzag graphene nanoribbons. , 2011, , .		0
68	First-Principles Study of Cu Doped Zigzag Graphene Nanoribbons. , 2011, , .		0
69	First Principle Calculations of Absorption of Cu-Doped Boron Nanotube. , 2011, , .		0
70	Ab-initio study of co-doped zigzag graphene nanoribbons. , 2012, , .		0
71	Transport properties of cu-doped armchair graphene nanoribbons in two probe geometry. , 2013, , .		0
72	Stability analysis of zigzag boron nitride nanoribbons. AIP Conference Proceedings, 2015, , .	0.4	0

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73	Spintronic and transport properties of linear atomic strings of transition metals (Fe, Co, Ni). AIP Conference Proceedings, 2016, , .	0.4	0
74	Shape dependent electronic properties of wurzite GaN nanowire. AIP Conference Proceedings, 2016, , .	0.4	0
75	Functionalization and migration of bromine adatoms on zigzag graphene nanoribbons: A first-principles study. AIP Conference Proceedings, 2018, , .	0.4	0
76	First-principle study of zigzag GaN nanoribbons with Cl functionalization. AIP Conference Proceedings, 2019, , .	0.4	0
77	Density functional investigations of Li adatom migration on perfect and vacancy engineered BN nanosheets. AIP Conference Proceedings, 2020, , .	0.4	0
78	First-Principle Study of Cl Functionalized Zigzag AlN Nanoribbons. Integrated Ferroelectrics, 2020, 205, 114-121.	0.7	0
79	First-Principle Study of Cl Functionalized Armchair AlN Nanoribbons. Springer Proceedings in Mathematics and Statistics, 2021, , 151-157.	0.2	0
80	Half Metallic Transition In Silver-adsorbed Zigzag Graphene Nanoribbons. Advanced Materials Letters, 2016, 7, 708-712.	0.6	0
81	Effect Of Phases On The Energetics Of Pristine InP Nanowires: An Ab-initio ApproachÂ. Advanced Materials Letters, 2016, 7, 831-835.	0.6	0