

Vipin Kumar

List of Publications by Year in descending order

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33
papers

542
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623734

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33
docs citations

33
times ranked

403
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronic and optical properties of BaTiO ₃ across tetragonal to cubic phase transition: An experimental and theoretical investigation. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	95
2	Single-layer stanane as potential gas sensor for NO ₂ , SO ₂ , CO ₂ and NH ₃ under DFT investigation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 110, 100-106.	2.7	48
3	Ca ₂ C MXene monolayer as a superior anode for metal-ion batteries. <i>2D Materials</i> , 2021, 8, 035015.	4.4	44
4	Two-Dimensional Boron-Phosphorus Monolayer for Reversible NO ₂ Gas Sensing. <i>ACS Applied Nano Materials</i> , 2020, 3, 10073-10081.	5.0	40
5	2D Sb ₂ C ₃ monolayer: A promising material for the recyclable gas sensor for environmentally toxic nitrogen-containing gases (NCGs). <i>Journal of Hazardous Materials</i> , 2021, 405, 124168.	12.4	35
6	Heterobilayer CaS/CaSe: A promising sensor for environmental toxic NO ₂ gas with high selectivity and sensitivity. <i>Applied Surface Science</i> , 2020, 528, 146996.	6.1	30
7	Structure, bonding, stability, electronic, thermodynamic and thermoelectric properties of six different phases of indium nitride. <i>Journal of Materials Science</i> , 2018, 53, 8302-8313.	3.7	28
8	The interaction of two-dimensional P ₂ SiS nanosheet with environmental toxic NCG molecules for sensor application: A DFT study. <i>Sensors and Actuators A: Physical</i> , 2021, 322, 112608.	4.1	25
9	Hydrogen-induced tunable electronic and optical properties of a two-dimensional penta-Pt ₂ N ₄ monolayer. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10409-10417.	2.8	24
10	Monolayer Bi ₂ C ₃ : A promising sensor for environmentally toxic NCGs with high sensitivity and selectivity. <i>Applied Surface Science</i> , 2020, 534, 147609.	6.1	23
11	Electric field-induced band modulation of predicted ternary 2D MXC ₃ [M: X= As:Ge, Sb:Sn and Bi:Pb] with strong stability and optical properties. <i>Carbon</i> , 2021, 172, 791-803.	10.3	21
12	Exploring thermoelectric properties and stability of half-Heusler PtXSn (X=Zr, Hf) semiconductors: A first principle investigation. <i>Computational Materials Science</i> , 2021, 188, 110232.	3.0	19
13	First-Principles Calculations of SiBi Nanosheets as Sensors for Oxygen-Containing Gases. <i>ACS Applied Nano Materials</i> , 2021, 4, 2440-2451.	5.0	19
14	Impact of internal (donor/acceptor) moieties and π -spacer in triphenylamine-based dyes for DSSCs. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 426, 113738.	3.9	19
15	Strain-induced band modulation and excellent stability, transport and optical properties of penta-MP ₂ (M = Ni, Pd, and Pt) monolayers. <i>Nanoscale Advances</i> , 2020, 2, 4566-4580.	4.6	10
16	Scalable and Storage Efficient Dynamic Key Management Scheme for Wireless Sensor Network. <i>Wireless Communications and Mobile Computing</i> , 2021, 2021, 1-11.	1.2	10
17	Two-dimensional Janus group-III ternary chalcogenide monolayer compounds B ₂ XY, Al ₂ XY, and BAIX ₂ (X, Y = Tj, ET, Q, 1 0.784314 rsgB	1.2	9
18	A Novel Model to Detect and Classify Fresh and Damaged Fruits to Reduce Food Waste Using a Deep Learning Technique. <i>Journal of Food Quality</i> , 2022, 2022, 1-8.	2.6	9

#	ARTICLE	IF	CITATIONS
19	Two-Dimensional lithium fluoride (LiF) as an efficient hydrogen storage material. Applied Surface Science, 2022, 581, 151776.	6.1	7
20	Using Density Functional Theory to Correlate Charge Transport Properties with Gas Sensing by Organic Nanowires. ACS Applied Nano Materials, 2021, 4, 5972-5980.	5.0	5
21	Electronic properties of hexagonal gallium phosphide: A DFT investigation. AIP Conference Proceedings, 2016, , .	0.4	4
22	Enhancing the connectivity and resiliency of random key pre-distribution schemes for wireless sensor network. International Journal of Systems Assurance Engineering and Management, 2022, 13, 92-99.	2.4	3
23	Strain-induced electronic, stability and enhancement of thermoelectric performance of 2D Si ₂ C ₃ monolayer: An emerging material for renewable energy. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 132, 114769.	2.7	3
24	Stability, optical and charge transport properties of saddle-shaped cyclooctatetrathiophene (COTh) isomers: a theoretical study. Journal of Sulfur Chemistry, 2022, 43, 180-192.	2.0	3
25	Dynamic Key Management Scheme for Clustered Sensor Networks with Node Addition Support. , 2021, , .		2
26	DFT investigation on structure, electronic and magnetic properties of Cr _n (n=2-8) clusters. AIP Conference Proceedings, 2016, , .	0.4	1
27	Structure, electronic and magnetic properties of Mn _n (n=2-8) clusters: A DFT investigation. AIP Conference Proceedings, 2016, , .	0.4	1
28	First principle study on the structure, electronic and optical properties of MoS ₂ /AlN hybrid bilayer: A DFT investigation. AIP Conference Proceedings, 2017, , .	0.4	1
29	A Survey of Key Management Schemes for Large Scale Wireless Sensor Networks. , 2021, , .		1
30	Density functional theory and time-dependent density functional theory studies on optoelectronic properties of fused heterocycles with cyclooctatetraene. Bulletin of the Korean Chemical Society, 2022, 43, 990-998.	1.9	1
31	Enhancement of gas sensing by doping of transition metal in two-dimensional As ₂ C ₃ nanosheet: A density functional theory investigation. Applied Surface Science, 2022, 599, 153941.	6.1	1
32	DFT study on band gap tunability in boron doped monolayer SiC. AIP Conference Proceedings, 2018, , .	0.4	0
33	Dynamic Group Key Management Technique in Context of Modern IoT Applications. , 2021, , .		0