

# Vipin Kumar

## List of Publications by Year in descending order

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Version: 2024-02-01

33  
papers

542  
citations

623734

14  
h-index

677142

22  
g-index

33  
all docs

33  
docs citations

33  
times ranked

403  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Two-Dimensional lithium fluoride (LiF) as an efficient hydrogen storage material. Applied Surface Science, 2022, 581, 151776.	6.1	7
3	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
4	Two-dimensional Janus group-III ternary chalcogenide monolayer compounds $B_2XY$ , $Al_2XY$ , and $BAlX_2$ ( $X, Y = Tl, Pb, Bi, Sb, As, Sn, Bi, Te, Se, S, Te, Se, S$ ) Tj ETQ 0 0 0 rg BT /Overlo	0.0	0
5	Impact of internal (donor/acceptor) moieties and $\pi$ -spacer in triphenylamine-based dyes for DSSCs. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 426, 113738.	3.9	19
6	A Novel Model to Detect and Classify Fresh and Damaged Fruits to Reduce Food Waste Using a Deep Learning Technique. Journal of Food Quality, 2022, 2022, 1-8.	2.6	9
7	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
8	Enhancement of gas sensing by doping of transition metal in two-dimensional $As_2C_3$ nanosheet: A density functional theory investigation. Applied Surface Science, 2022, 599, 153941.	6.1	1
9	2D $Sb_2C_3$ monolayer: A promising material for the recyclable gas sensor for environmentally toxic nitrogen-containing gases (NCGs). Journal of Hazardous Materials, 2021, 405, 124168.	12.4	35
10	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. Carbon, 2021, 172, 791-803.	10.3	21
11	Exploring thermoelectric properties and stability of half-Heusler $PtXSn$ ( $X = Zr, Hf$ ) semiconductors: A first principle investigation. Computational Materials Science, 2021, 188, 110232.	3.0	19
12	First-Principles Calculations of $SiBi$ Nanosheets as Sensors for Oxygen-Containing Gases. ACS Applied Nano Materials, 2021, 4, 2440-2451.	5.0	19
13	A Survey of Key Management Schemes for Large Scale Wireless Sensor Networks. , 2021, , .		1
14	$Ca_2C$ MXene monolayer as a superior anode for metal-ion batteries. 2D Materials, 2021, 8, 035015.	4.4	44
15	Dynamic Key Management Scheme for Clustered Sensor Networks with Node Addition Support. , 2021, , .		2
16	The interaction of two-dimensional $P_2SiS$ nanosheet with environmental toxic NCG molecules for sensor application: A DFT study. Sensors and Actuators A: Physical, 2021, 322, 112608.	4.1	25
17	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
18	Scalable and Storage Efficient Dynamic Key Management Scheme for Wireless Sensor Network. Wireless Communications and Mobile Computing, 2021, 2021, 1-11.	1.2	10

#	ARTICLE	IF	CITATIONS
19	Strain-induced electronic, stability and enhancement of thermoelectric performance of 2D Si <sub>2</sub> C <sub>3</sub> monolayer: An emerging material for renewable energy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 132, 114769.	2.7	3
20	Hydrogen-induced tunable electronic and optical properties of a two-dimensional penta-Pt <sub>2</sub> N <sub>4</sub> monolayer. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10409-10417.	2.8	24
21	Dynamic Group Key Management Technique in Context of Modern IoT Applications. , 2021, , .		0
22	Monolayer Bi <sub>2</sub> C <sub>3</sub> : A promising sensor for environmentally toxic NCGs with high sensitivity and selectivity. <i>Applied Surface Science</i> , 2020, 534, 147609.	6.1	23
23	Strain-induced band modulation and excellent stability, transport and optical properties of penta-MP <sub>2</sub> (M = Ni, Pd, and Pt) monolayers. <i>Nanoscale Advances</i> , 2020, 2, 4566-4580.	4.6	10
24	Two-Dimensional Boron-Phosphorus Monolayer for Reversible NO <sub>2</sub> Gas Sensing. <i>ACS Applied Nano Materials</i> , 2020, 3, 10073-10081.	5.0	40
25	Heterobilayer CaS/CaSe: A promising sensor for environmental toxic NO <sub>2</sub> gas with high selectivity and sensitivity. <i>Applied Surface Science</i> , 2020, 528, 146996.	6.1	30
26	Single-layer stanane as potential gas sensor for NO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> and NH <sub>3</sub> under DFT investigation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 110, 100-106.	2.7	48
27	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
28	DFT study on band gap tunability in boron doped monolayer SiC. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	0
29	First principle study on the structure, electronic and optical properties of MoS <sub>2</sub> /AlN hybrid bilayer: A DFT investigation. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	1
30	Electronic and optical properties of BaTiO <sub>3</sub> across tetragonal to cubic phase transition: An experimental and theoretical investigation. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	95
31	DFT investigation on structure, electronic and magnetic properties of Cr <sub>n</sub> (n=2-8) clusters. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	1
32	Electronic properties of hexagonal gallium phosphide: A DFT investigation. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	4
33	Structure, electronic and magnetic properties of Mn <sub>n</sub> (n=2-8) clusters: A DFT investigation. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	1