

Hamad Rahman Jappor

List of Publications by Year in descending order

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51
papers

2,209
citations

117453

34
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223531

46
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62
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62
docs citations

62
times ranked

1115
citing authors

#	ARTICLE	IF	CITATIONS
1	Unraveling the effect of Gd doping on the structural, optical, and magnetic properties of ZnO based diluted magnetic semiconductor nanorods. RSC Advances, 2019, 9, 33207-33221.	1.7	123
2	Tunable optical and electronic properties of Janus monolayers Ga ₂ SSe, Ga ₂ STe, and Ga ₂ SeTe as promising candidates for ultraviolet photodetectors applications. Superlattices and Microstructures, 2019, 125, 1-7.	1.4	77
3	First-principles investigation of nonmetal doped single-layer BiOBr as a potential photocatalyst with a low recombination rate. Physical Chemistry Chemical Physics, 2020, 22, 15354-15364.	1.3	74
4	Janus monolayer PtSSe under external electric field and strain: A first principles study on electronic structure and optical properties. Superlattices and Microstructures, 2020, 147, 106683.	1.4	69
5	A Dirac-semimetal two-dimensional BeN ₄ : Thickness-dependent electronic and optical properties. Applied Physics Letters, 2021, 118, .	1.5	64
6	Electronic and magnetic properties of single-layer boron phosphide associated with materials processing defects. Computational Materials Science, 2019, 170, 109201.	1.4	63
7	Tunable electronic and optical properties of new two-dimensional GaN/BAs van der Waals heterostructures with the potential for photovoltaic applications. Chemical Physics Letters, 2019, 728, 124-131.	1.2	63
8	Stacking impact on the optical and electronic properties of two-dimensional MoSe ₂ /PtS ₂ heterostructures formed by PtS ₂ and MoSe ₂ monolayers. Chemical Physics, 2020, 532, 110679.	0.9	63
9	Strain-tunable electronic and optical properties of monolayer GeSe: Promising for photocatalytic water splitting applications. Chemical Physics, 2020, 529, 110543.	0.9	60
10	Two-dimensional porous graphitic carbon nitride C ₆ N ₇ monolayer: First-principles calculations. Applied Physics Letters, 2021, 119, .	1.5	57
11	Ab-initio-driven prediction of puckered penta-like PdPSeX (X = O, S, Te) Janus monolayers: Study on the electronic, optical, mechanical and photocatalytic properties. Applied Surface Science, 2022, 582, 152356.	3.1	55
12	Tuning the electronic structure of 2D materials by strain and external electric field: Case of GeI ₂ monolayer. Chemical Physics, 2019, 527, 110499.	0.9	53
13	Two-dimensional penta-like PdPSe with a puckered pentagonal structure: a first-principles study. Physical Chemistry Chemical Physics, 2022, 24, 9990-9997.	1.3	53
14	Two-dimensional XY monolayers (X = Al, Ga, In; Y = N, P, As) with a double layer hexagonal structure: A first-principles perspective. Applied Surface Science, 2022, 590, 152998.	3.1	53
15	Tunable optical and electronic properties of gallium telluride monolayer for photovoltaic absorbers and ultraviolet detectors. Chemical Physics Letters, 2018, 713, 46-51.	1.2	52
16	Tunable electronic and optical properties of GaS/GaSe van der Waals heterostructure. Current Applied Physics, 2018, 18, 673-680.	1.1	51
17	Two-dimensional carbon nitride C ₆ N nanosheet with egg-comb-like structure and electronic properties of a semimetal. Nanotechnology, 2021, 32, 215702.	1.3	50
18	Adsorption of molecules on C ₃ N nanosheet: A first-principles calculations. Chemical Physics, 2019, 526, 110442.	0.9	49

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19	Biphenylene monolayer as a two-dimensional nonbenzenoid carbon allotrope: a first-principles study. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 015001.	0.7	45
20	First principles study of single-layer SnSe ₂ under biaxial strain and electric field: Modulation of electronic properties. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 111, 201-205.	1.3	44
21	Two-dimensional ZnI ₂ monolayer as a photocatalyst for water splitting and improvement its electronic and optical properties by strains. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 126, 114487.	1.3	44
22	Novel two-dimensional AlSb and InSb monolayers with a double-layer honeycomb structure: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 18752-18759.	1.3	44
23	Ab initio prediction of semiconductivity in a novel two-dimensional Sb ₂ X ₃ (X= S, Se, Te) monolayers with orthorhombic structure. <i>Scientific Reports</i> , 2021, 11, 10366.	1.6	44
24	Tuning optical and electronic properties of 2D ZnI ₂ /CdS heterostructure by biaxial strains for optical nanodevices: A first-principles study. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	44
25	Two-dimensional FeTe ₂ and predicted Janus FeXS (X: Te and Se) monolayers with intrinsic half-metallic character: tunable electronic and magnetic properties via strain and electric field. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 24336-24343.	1.3	44
26	The electronic, half-metallic, and magnetic properties of Ca1-Cr S ternary alloys: Insights from the first-principle calculations. <i>Journal of Molecular Graphics and Modelling</i> , 2019, 89, 22-32.	1.3	43
27	Prediction of two-dimensional bismuth-based chalcogenides Bi ₂ X ₃ (X = S, Se, Te) <i>Journal of Applied Physics</i> , 2021, 54, 395103.	1.3	42
28	Assessing optoelectronic properties of PbI ₂ monolayer under uniaxial strain from first principles calculations. <i>Superlattices and Microstructures</i> , 2019, 130, 354-360.	1.4	41
29	Electronic band structure, thermodynamics and optical characteristics of BeO _{1-x} A _x (A = S, Se, Te) alloys: Insights from ab initio study. <i>Chemical Physics</i> , 2019, 526, 110414.	0.9	39
30	Electronic and magnetic properties of two-dimensional of FeX (X = S, Se, Te) monolayers crystallize in the orthorhombic structures. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	39
31	Electronic Properties of Adsorption of CO, CO ₂ , NH ₃ , NO, NO ₂ and SO ₂ on Nitrogen Doped Graphene for Gas Sensor Applications. <i>Sensor Letters</i> , 2017, 15, 432-439.	0.4	35
32	Electronic Properties of CO and CO ₂ Adsorbed Silicene/Graphene Nanoribbons as a Promising Candidate for a Metal-Free Catalyst and a Gas Sensor. <i>Sensor Letters</i> , 2016, 14, 989-995.	0.4	34
33	Electronic and Structural Properties of Gas Adsorbed Graphene-Silicene Hybrid as a Gas Sensor. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2017, 12, 742-747.	0.1	33
34	Simulation of Electronic Structure of Aluminum Phosphide Nanocrystals Using Ab Initio Large Unit Cell Method. <i>Advances in Materials Science and Engineering</i> , 2012, 2012, 1-6.	1.0	29
35	Semiconducting Chalcogenide Alloys Based on the (Ge, Sn, Pb) (S, Se, Te) Formula with Outstanding Properties: A First-Principles Calculation Study. <i>ACS Omega</i> , 2021, 6, 9433-9441.	1.6	20
36	Puckered Penta-like PdPX (X = O, S, Te) Semiconducting Nanosheets: First-Principles Study of the Mechanical, Electro-Optical, and Photocatalytic Properties. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 21577-21584.	4.0	19

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37	Investigation of vacancy defects and substitutional doping in AlSb monolayer with double layer honeycomb structure: a first-principles calculation. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 065701.	0.7	18
38	Prediction of two-dimensional AlBrSe monolayer as a highly efficient photocatalytic for water splitting. <i>Surfaces and Interfaces</i> , 2022, 31, 102020.	1.5	18
39	Electronic, optical and thermoelectric properties of a novel two-dimensional SbXY (X = Se, Te; Y = Br, I) family: <i>ab initio</i> perspective. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 25866-25876.	1.3	17
40	Structural, electronic and optical properties of ABTe ₂ (A = Li, Na, K, Rb, Cs and B = Sc, Y, La): Insights from first-principles computations. <i>Journal of Solid State Chemistry</i> , 2019, 279, 120954.	1.4	13
41	Electronic Structure of AlP Under Pressure Using Semiempirical Method. <i>The Open Condensed Matter Physics Journal</i> , 2010, 3, 1-7.	0.2	12
42	Theoretical study of thermal conductivity, mechanical, vibrational and thermodynamical properties of Ln ₂ Zr ₂ O ₇ (Ln = La, Nd, Sm, and Eu) pyrochlore. <i>Inorganic Chemistry Communication</i> , 2021, 127, 108495.	1.8	9
43	Tilted electric field effects on the electronic states in a GaAs quantum disk. <i>Superlattices and Microstructures</i> , 2012, 52, 1078-1082.	1.4	7
44	Electronic band structure, elastic, optical and thermodynamic characteristic of cubic YF ₃ : An <i>ab initio</i> study. <i>Optik</i> , 2021, 239, 166680.	1.4	7
45	Al-Doped Graphene as a Sensor for Harmful Gases (CO, CO ₂ , NH ₃ , NO,) <i>Tj ETQq1 1 0.784314 rgBT₇/Overlo</i>	0.4	7
46	Tunable electronic properties of InSe by biaxial strain: from bulk to single-layer. <i>Materials Research Express</i> , 2019, 6, 115002.	0.8	6
47	Insight view of mechanical, electronic and thermodynamic properties of the novel intermetallic $\text{RE}_{1-x}\text{Ln}_x$ (RE = Eu, Gd, Tb, Dy, Ho) compounds via <i>ab initio</i> calculations. <i>Bulletin of Materials Science</i> , 2020, 43, 1.	0.8	3
48	Electronic Structure Properties of Twisted Armchair (3, 3) and Zigzag (5, 0) Carbon Nanotube: A Density Functional Study. <i>Materials Focus</i> , 2016, 5, 158-164.	0.4	2
49	Structural, Electronic and Optical Properties of Transition Metal Dichalcogenides Layer PtS ₂ (Se ₂) for Nano Devices Applications. <i>Key Engineering Materials</i> , 0, 886, 48-56.	0.4	1
50	Hydrogenation of Zigzag (5, 0) and (6, 0) Single-Walled Carbon Nanotubes Using Density Functional Theory. <i>Journal of Advanced Physics</i> , 2016, 5, 140-144.	0.4	1
51	Electronic and Optical Properties of Indium Selenide Nanosheet Using First-Principle Calculations. <i>Advanced Science, Engineering and Medicine</i> , 2019, 11, 1148-1154.	0.3	0