

Tuan V Vu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9035211/publications.pdf>

Version: 2024-02-01

188
papers

5,055
citations

76196

40
h-index

143772

57
g-index

189
all docs

189
docs citations

189
times ranked

2357
citing authors

#	ARTICLE	IF	CITATIONS
1	Layered graphene/GaS van der Waals heterostructure: Controlling the electronic properties and Schottky barrier by vertical strain. Applied Physics Letters, 2018, 113, .	1.5	171
2	Rashba spin splitting and photocatalytic properties of $\text{GeC}\hat{\alpha}\text{M}$ ($\text{Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 697 Td}$)	1.1	100
3	Graphene/WSeTe van der Waals heterostructure: Controllable electronic properties and Schottky barrier via interlayer coupling and electric field. Applied Surface Science, 2020, 507, 145036.	3.1	133
4	Interfacial characteristics, Schottky contact, and optical performance of a $\text{graphene}/\text{S}/\text{Se}$ van der Waals heterostructure: Strain engineering and electric field tunability. Physical Review B, 2020, 102, .	1.1	100
5	Interlayer coupling and electric field tunable electronic properties and Schottky barrier in a graphene/bilayer-GaSe van der Waals heterostructure. Physical Chemistry Chemical Physics, 2018, 20, 17899-17908.	1.3	99
6	A type-II GaSe/HfS ₂ van der Waals heterostructure as promising photocatalyst with high carrier mobility. Applied Surface Science, 2020, 534, 147607.	3.1	97
7	Theoretical prediction of electronic, transport, optical, and thermoelectric properties of Janus monolayers In_2		

#	ARTICLE	IF	CITATIONS
19	A van der Waals heterostructure of MoS ₂ /MoSi ₂ N ₄ : a first-principles study. <i>New Journal of Chemistry</i> , 2021, 45, 8291-8296.	1.4	59
20	First-principles study of the structural and electronic properties of graphene/MoS ₂ interfaces. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	57
21	Electronic structure and optical properties of Ag ₂ HgSnSe ₄ : First-principles DFT calculations and X-ray spectroscopy studies. <i>Journal of Alloys and Compounds</i> , 2018, 732, 372-384.	2.8	57
22	Graphene hetero-multilayer on layered platinum mineral jacutingaite (Pt ₂ HgSe ₃): van der Waals heterostructures with novel optoelectronic and thermoelectric performances. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13248-13260.	5.2	57
23	First principles study of the electronic properties and Schottky barrier in vertically stacked graphene on the Janus MoSeS under electric field. <i>Computational Materials Science</i> , 2018, 153, 438-444.	1.4	56
24	Tunable type-II band alignment and electronic structure of C ₃ N ₄ /MoSi ₂ heterostructure: Interlayer coupling and electric. <i>Physical Review B</i> , 2022, 105, .	1.1	56
25	Enhancement of monolayer SnSe light absorption by strain engineering: A DFT calculation. <i>Chemical Physics</i> , 2019, 521, 5-13.	0.9	54
26	Two-Dimensional Boron Phosphide/MoGe ₂ N ₄ van der Waals Heterostructure: A Promising Tunable Optoelectronic Material. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 5076-5084.	2.1	54
27	Tuning the electronic structure of 2D materials by strain and external electric field: Case of Ge ₂ monolayer. <i>Chemical Physics</i> , 2019, 527, 110499.	0.9	53
28	First-principles investigation of structural, elastic, thermodynamic, electronic and optical properties of lead-free double perovskites halides: Cs ₂ LiYX ₆ (X = Br, I). <i>Materials Chemistry and Physics</i> , 2021, 258, 123945.	2.0	52
29	Interfacial Electronic Properties and Tunable Contact Types in Graphene/Janus MoGeSiN ₄ Heterostructures. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3934-3940.	2.1	52
30	Van der Waals graphene/g-GaSe heterostructure: Tuning the electronic properties and Schottky barrier by interlayer coupling, biaxial strain, and electric gating. <i>Journal of Alloys and Compounds</i> , 2018, 750, 765-773.	2.8	51
31	Effect of biaxial strain and external electric field on electronic properties of MoS ₂ monolayer: A first-principle study. <i>Chemical Physics</i> , 2016, 468, 9-14.	0.9	49
32	Tailoring the structural and electronic properties of an SnSe ₂ /MoS ₂ van der Waals heterostructure with an electric field and the insertion of a graphene sheet. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22140-22148.	1.3	48
33	Linear and nonlinear magneto-optical properties of monolayer phosphorene. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	47
34	First-principles investigations of Na ₂ CuMCl ₆ (M = Bi, Sb) double perovskite semiconductors: Materials for green technology. <i>Materials Science in Semiconductor Processing</i> , 2022, 150, 106947.	1.9	45
35	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
36	Electric gating and interlayer coupling controllable electronic structure and Schottky contact of graphene/ Bil ₃ van der Waals heterostructure. <i>Physical Review B</i> , 2021, 103, .	1.1	43

#	ARTICLE	IF	CITATIONS
37	First-principles investigations of Ba ₂ NaIO ₆ double Perovskite semiconductor: Material for low-cost energy technologies. <i>Materials Chemistry and Physics</i> , 2022, 275, 125237.	2.0	42
38	Tuning the electronic properties and Schottky barrier height of the vertical graphene/MoS ₂ heterostructure by an electric gating. <i>Superlattices and Microstructures</i> , 2018, 116, 79-87.	1.4	41
39	A theoretical and experimental study of the valence-band electronic structure and optical constants of quaternary copper mercury tin sulfide, Cu ₂ HgSnS ₄ , a potential material for optoelectronics and solar cells. <i>Optical Materials</i> , 2019, 96, 109296.	1.7	41
40	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
41	Band alignment and optical features in Janus-MoSeTe/X(OH) ₂ (X = Ca, Mg) van der Waals heterostructures. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 25849-25858.	1.3	40
42	Structural, electronic, and transport properties of quintuple atomic Janus monolayers $S_2X_2Ga_2$ (X = Ga, In, Sb, Bi). <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20704-20711.	1.1	40
43	First principle study on the electronic properties and Schottky contact of graphene adsorbed on MoS ₂ monolayer under applied out-plane strain. <i>Surface Science</i> , 2018, 668, 23-28.	0.8	39
44	Computational prediction of electronic and optical properties of Janus Ga ₂ SeTe monolayer. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 455302.	1.3	39
45	Vertical strain and electric field tunable electronic properties of type-II band alignment C ₂ N/InSe van der Waals heterostructure. <i>Chemical Physics Letters</i> , 2019, 716, 155-161.	1.2	38
46	van der Waals heterostructures based on MSSe (M = Mo, W) and graphene-like GaN: enhanced optoelectronic and photocatalytic properties for water splitting. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 20704-20711.	1.3	37
47	Structural, electronic, and transport properties of quintuple atomic Janus monolayers $S_2X_2Ga_2$ (X = Ga, In, Sb, Bi). <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 104.	1.1	37
48	Electric-field tunable electronic properties and Schottky contact of graphene/phosphorene heterostructure. <i>Vacuum</i> , 2018, 149, 231-237.	1.6	36
49	Theoretical investigation of electronic structure and thermoelectric properties of MX ₂ (M=Zr, Hf). <i>Journal of Physics and Chemistry of Solids</i> , 2020, 144, 109490.	1.9	36
50	A comprehensive investigation on electronic structure, optical and thermoelectric properties of the HfSSe Janus monolayer. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 144, 109490.	1.9	36
51	Particular features of the electronic structure and optical properties of Ag ₂ PbGeS ₄ as evidenced from first-principles DFT calculations and XPS studies. <i>Materials Chemistry and Physics</i> , 2018, 208, 268-280.	2.0	35
52	First principles study of optical properties of molybdenum disulfide: From bulk to monolayer. <i>Superlattices and Microstructures</i> , 2018, 115, 10-18.	1.4	35
53	Investigation of strain and doping on the electronic properties of single layers of C ₆ N ₆ and C ₆ N ₈ : a first principles study. <i>RSC Advances</i> , 2020, 10, 27743-27751.	1.7	35
54	Electronic and optical properties of bulk and surface of CsPbBr ₃ inorganic halide perovskite a first principles DFT approach. <i>Scientific Reports</i> , 2021, 11, 20622.	1.6	35

#	ARTICLE	IF	CITATIONS
55	Electronic structure and optical properties of RbPb ₂ Br ₅ . Journal of Physics and Chemistry of Solids, 2016, 91, 25-33.	1.9	33
56	Spin-orbit coupling effect on electronic, optical, and thermoelectric properties of Janus Ga ₂ SSe. RSC Advances, 2020, 10, 44785-44792.	1.7	32
57	Electronic properties and optical behaviors of bulk and monolayer ZrS ₂ : A theoretical investigation. Superlattices and Microstructures, 2019, 125, 205-213.	1.4	31
58	Gas adsorption properties (N ₂ , H ₂ , O ₂ , NO, NO ₂ , CO) Tj ETQq0 0 0 rgBT /Overlock first-principles study. New Journal of Chemistry, 2020, 44, 18763-18769.	1.4	30
59	Electric field and substrate-induced modulation of spin-polarized transport in graphene nanoribbons on A ₃ B ₅ semiconductors. Journal of Applied Physics, 2015, 117, .	1.1	29
60	Linear and nonlinear magneto-optical properties of monolayer MoS ₂ . Journal of Applied Physics, 2018, 123, .	1.1	29
61	Effects of different surface functionalization on the electronic properties and contact types of graphene/functionalized-GeC van der Waals heterostructures. Physical Chemistry Chemical Physics, 2020, 22, 7952-7961.	1.3	29
62	Electronic structure and optical properties of noncentrosymmetric LiGaSe ₂ : Experimental measurements and DFT band structure calculations. Optical Materials, 2017, 66, 149-159.	1.7	28
63	Out-of-plane strain and electric field tunable electronic properties and Schottky contact of graphene/antimonene heterostructure. Superlattices and Microstructures, 2017, 112, 554-560.	1.4	27
64	Electric field tunable electronic properties of P-ZnO and SiC-ZnO van der Waals heterostructures. Computational Materials Science, 2019, 164, 166-170.	1.4	27
65	Electronic structure and optical properties of Cs ₂ HgI ₄ : Experimental study and band-structure DFT calculations. Optical Materials, 2015, 42, 351-360.	1.7	26
66	Linear and nonlinear magneto-optical absorption coefficients and refractive index changes in graphene. Optical Materials, 2017, 69, 328-332.	1.7	26
67	Surface functionalization of GeC monolayer with F and Cl: Electronic and optical properties. Superlattices and Microstructures, 2020, 137, 106359.	1.4	26
68	Electronic properties and low lattice thermal conductivity (κ_l) of mono-layer (ML) MoS ₂ : FP-LAPW incorporated with spin-orbit coupling (SOC). RSC Advances, 2020, 10, 18830-18840.	1.7	26
69	Effect of electric field on the electronic and magnetic properties of a graphene nanoribbon/aluminium nitride bilayer system. RSC Advances, 2015, 5, 49308-49316.	1.7	25
70	Electronic structure and optical properties of noncentrosymmetric LiGaGe ₂ Se ₆ , a promising nonlinear optical material. Physica B: Condensed Matter, 2016, 501, 74-83.	1.3	25
71	Specific features of the electronic structure and optical properties of KPb ₂ Br ₅ : DFT calculations and X-ray spectroscopy measurements. Optical Materials, 2016, 53, 64-72.	1.7	25
72	Ab-initio study of electronic and optical properties of biaxially deformed single-layer GeS. Superlattices and Microstructures, 2018, 120, 501-507.	1.4	25

#	ARTICLE	IF	CITATIONS
73	Magneto-optical absorption in silicene and germanene induced by electric and Zeeman fields. <i>Physical Review B</i> , 2020, 101, .	1.1	25
74	Electronic structure and optical properties of Cu ₂ CdGeS ₄ : DFT calculations and X-ray spectroscopy measurements. <i>Optical Materials</i> , 2015, 47, 435-444.	1.7	24
75	Electronic, optical, and thermoelectric properties of Janus In-based monochalcogenides. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 225503.	0.7	24
76	Electronic and optical properties of 2D monolayer (ML) MoS ₂ with vacancy defect at S sites. <i>Nano Structures Nano Objects</i> , 2020, 21, 100404.	1.9	23
77	Dispersion-Corrected Density Functional Theory Investigations of Structural and Electronic Properties of Bulk MoS ₂ : Effect of Uniaxial Strain. <i>Nanoscale Research Letters</i> , 2015, 10, 433.	3.1	22
78	Structural, electronic and optical properties of pristine and functionalized MgO monolayers: a first principles study. <i>RSC Advances</i> , 2020, 10, 40411-40420.	1.7	22
79	Effect of strains on electronic and optical properties of monolayer SnS: Ab-initio study. <i>Physica B: Condensed Matter</i> , 2018, 545, 255-261.	1.3	21
80	Strain and electric field tunable electronic properties of type-II band alignment in van der Waals GaSe/MoSe ₂ heterostructure. <i>Chemical Physics</i> , 2019, 521, 92-99.	0.9	21
81	Modulation of electronic properties of monolayer InSe through strain and external electric field. <i>Chemical Physics</i> , 2019, 516, 213-217.	0.9	21
82	Reducing the electronic band gap of BN monolayer by coexistence of P(As)-doping and external electric field. <i>Superlattices and Microstructures</i> , 2020, 137, 106357.	1.4	20
83	Ternary sulfides BaLa ₂ S ₄ and CaLa ₂ S ₄ as promising photocatalytic water splitting and thermoelectric materials: First-principles DFT calculations. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 22600-22612.	3.8	19
84	Efficient Broadband Truncated-Pyramid-Based Metamaterial Absorber in the Visible and Near-Infrared Regions. <i>Crystals</i> , 2020, 10, 784.	1.0	19
85	Electronic and optoelectronic properties of van der Waals heterostructure based on graphene-like GaN, blue phosphorene, SiC, and ZnO: A first principles study. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	19
86	The characteristics of defective ZrS ₂ monolayers adsorbed various gases on S-vacancies: A first-principles study. <i>Superlattices and Microstructures</i> , 2020, 140, 106454.	1.4	19
87	Janus Ga ₂ STe monolayer under strain and electric field: Theoretical prediction of electronic and optical properties. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 124, 114358.	1.3	18
88	Structural, elastic, and electronic properties of chemically functionalized boron phosphide monolayer. <i>RSC Advances</i> , 2021, 11, 8552-8558.	1.7	18
89	Rashba-type spin splitting and transport properties of novel Janus XWGeN ₂ (X = O, S, Se,) <i>Tj ETQq1 1 0,784314 rgBT /Over</i>	1.3	18
90	Manifestation of Anomalous Weak Space-Charge-Density Acentricity for a Tl ₄ HgBr ₆ Single Crystal. <i>Inorganic Chemistry</i> , 2016, 55, 10547-10557.	1.9	17

#	ARTICLE	IF	CITATIONS
91	Electronic, magnetic and optical properties of monolayer (ML) hexagonal ZnSe on vacancy defects at Zn sites from DFT-1/2 approach. <i>Vacuum</i> , 2020, 182, 109597.	1.6	17
92	Half-metallicity and magnetism in BAs monolayer induced by anchoring 3d transition metals (TM = V, Tj ETQq0 0 0,rgBT /Overlock 10 Tf	1.4	17
93	Induced ferromagnetism in bilayer hexagonal Boron Nitride (h-BN) on vacancy defects at B and N sites. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 126, 114436.	1.3	17
94	First-principles DFT calculations of the electronic structure and optical properties of TlInGe2Se6, a prospective NLO material. <i>Materials Chemistry and Physics</i> , 2018, 219, 162-174.	2.0	16
95	Structural and electronic properties of chemically functionalized SnC monolayer: a first principles study. <i>Materials Research Express</i> , 2020, 7, 015013.	0.8	16
96	Electronic, optical and photocatalytic properties of fully hydrogenated GeC monolayer. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 117, 113857.	1.3	16
97	Modulation of electronic and optical properties of GaTe monolayer by biaxial strain and electric field. <i>Superlattices and Microstructures</i> , 2020, 140, 106435.	1.4	16
98	Theoretical analysis of the HfS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math> monolayer electronic structure and optical properties under vertical strain effects. <i>Optik</i> , 2021, 225, 165718.	1.4	16
99	Crystal growth, electronic and optical properties of Tl2CdSnSe4, a recently discovered prospective semiconductor for application in thin film solar cells and optoelectronics. <i>Optical Materials</i> , 2021, 111, 110656.	1.7	16
100	Band Gap Modulation of Bilayer MoS2 Under Strain Engineering and Electric Field: A Density Functional Theory. <i>Journal of Electronic Materials</i> , 2016, 45, 4038-4043.	1.0	15
101	Tuning the Electronic and Optical Properties of Two-Dimensional Graphene-like C_2N Nanosheet by Strain Engineering. <i>Journal of Electronic Materials</i> , 2018, 47, 4594-4603.	1.0	15
102	Electronic, Optical and Elastic Properties of Cu2CdGeSe4: A First-Principles Study. <i>Journal of Electronic Materials</i> , 2019, 48, 705-715.	1.0	15
103	Effects of electric field and strain engineering on the electronic properties, band alignment and enhanced optical properties of ZnO/Janus ZrSSe heterostructures. <i>RSC Advances</i> , 2020, 10, 9824-9832.	1.7	15
104	Stacking and electric field effects on the band alignment and electronic properties of the GeC/GaSe heterostructure. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 120, 114050.	1.3	15
105	Electronic structure and optical constants of CsPbCl3: The effect of approaches within ab initio calculations in relation to X-ray spectroscopy experiments. <i>Materials Chemistry and Physics</i> , 2021, 261, 124216.	2.0	15
106	Effects of electric field and biaxial strain on the (NO2, NO, O2, and SO2) gas adsorption properties of Sc2CO2 monolayer. <i>Superlattices and Microstructures</i> , 2022, 163, 107135.	1.4	15
107	Single crystal growth, electronic structure and optical properties of Cs2HgBr4. <i>Journal of Physics and Chemistry of Solids</i> , 2015, 85, 254-263.	1.9	14
108	Strain-Tunable Electronic and Optical Properties of Monolayer Germanium Monosulfide: Ab-Initio Study. <i>Journal of Electronic Materials</i> , 2019, 48, 2902-2909.	1.0	14

#	ARTICLE	IF	CITATIONS
109	Quaternary Cu ₂ HgGeSe ₄ selenide: Its electronic and optical properties as elucidated from TB-mBJ band-structure calculations and XPS and XES measurements. <i>Chemical Physics</i> , 2020, 536, 110821.	0.9	14
110	Structural, electronic and optical properties of CdO monolayer and bilayers: Stacking effect investigations. <i>Superlattices and Microstructures</i> , 2020, 145, 106644.	1.4	14
111	TlInGe ₂ S ₆ , A Prospective Nonlinear Optical Material: First-Principles DFT Calculations of the Electronic Structure and Optical Properties. <i>Journal of Electronic Materials</i> , 2018, 47, 5525-5536.	1.0	13
112	Biaxial strain and external electric field effects on the electronic structure of hydrogenated GaN monolayer. <i>Superlattices and Microstructures</i> , 2019, 136, 106270.	1.4	13
113	Tri-layered van der Waals heterostructures based on graphene, gallium selenide and molybdenum selenide. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	13
114	Electronic and optical properties of quaternary sulfide Tl ₂ HgSnS ₄ , a promising optoelectronic semiconductor: A combined experimental and theoretical study. <i>Optical Materials</i> , 2019, 92, 294-302.	1.7	13
115	Electronic and optical properties of layered van der Waals heterostructure based on MS ₂ (M = Mo, W) monolayers. <i>Materials Research Express</i> , 2019, 6, 065060.	0.8	13
116	Theoretical and experimental study on the electronic and optical properties of K _{0.5} Rb _{0.5} Pb ₂ Br ₅ : a promising laser host material. <i>RSC Advances</i> , 2020, 10, 11156-11164.	1.7	13
117	First-principles prediction of chemically functionalized InN monolayers: electronic and optical properties. <i>RSC Advances</i> , 2020, 10, 10731-10739.	1.7	13
118	Promising optoelectronic response of 2D monolayer MoS ₂ : A first principles study. <i>Chemical Physics</i> , 2020, 538, 110824.	0.9	13
119	Functionalizing AlN monolayer with hydroxyl group: Effect on the structural and electronic properties. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126444.	0.9	13
120	First-principles DFT computation and X-ray spectroscopy study of the electronic band structure and optical constants of Cu ₂ HgGeS ₄ . <i>Solid State Sciences</i> , 2020, 104, 106287.	1.5	13
121	Effect of oxygen adsorption on structural and electronic properties of defective surfaces (0 0 1), (1 1) Tj ETQq1 1 0,784314 rgBT /Over E2	1.4	13
122	DFT study and XPS measurements elucidating the electronic and optical properties of KPb ₂ Cl ₅ . <i>Optical Materials</i> , 2020, 102, 109793.	1.7	12
123	Computational insights into structural, electronic and optical characteristics of GeC ₂ N van der Waals heterostructures: effects of strain engineering and electric field. <i>RSC Advances</i> , 2020, 10, 2967-2974.	1.7	12
124	Understanding the electronic properties, contact types and optical performances in graphene/InN heterostructure: Role of electric gating. <i>Diamond and Related Materials</i> , 2020, 106, 107851.	1.8	12
125	Electronic structure and optical properties of LiGa _{0.5} In _{0.5} Se ₂ single crystal, a nonlinear optical mid-IR material. <i>Optical Materials</i> , 2018, 80, 12-21.	1.7	11
126	Electronic band structure and basic optical constants of TlGaSn ₂ Se ₆ , a promising NLO semiconductor: First-principles calculations under DFT framework. <i>Optik</i> , 2019, 181, 673-685.	1.4	11

#	ARTICLE	IF	CITATIONS
127	TlSbP ₂ Se ₆ - a new layered single crystal: growth, structure and electronic properties. Journal of Alloys and Compounds, 2020, 848, 156485.	2.8	11
128	Outstanding elastic, electronic, transport and optical properties of a novel layered material C ₄ F ₂ : first-principles study. RSC Advances, 2021, 11, 23280-23287.	1.7	11
129	Electronic structure and optical properties of Cs ₂ HgCl ₄ : DFT calculations and X-ray photoelectron spectroscopy measurements. Optical Materials, 2016, 60, 169-180.	1.7	10
130	Structural, electronic, optical and elastic properties of XLa ₂ S ₄ (X = Ba, Ca): Ab initio study. Physica B: Condensed Matter, 2019, 558, 91-99.	1.3	10
131	Tuning the electronic properties of GaS monolayer by strain engineering and electric field. Chemical Physics, 2019, 524, 101-105.	0.9	10
132	Schottky anomaly and Néel temperature treatment of possible perturbed hydrogenated AA-stacked graphene, SiC, and h-BN bilayers. RSC Advances, 2019, 9, 41569-41580.	1.7	10
133	Simulation within a DFT framework and experimental study of the valence-band electronic structure and optical properties of quaternary selenide Cu ₂ HgSnSe ₄ . Optik, 2020, 202, 163709.	1.4	10
134	Tuning the electronic, photocatalytic and optical properties of hydrogenated InN monolayer by biaxial strain and electric field. Chemical Physics, 2020, 532, 110677.	0.9	10
135	Low-energy bands, optical properties, and spin/valley-Hall conductivity of silicene and germanene. Journal of Materials Science, 2020, 55, 14848-14857.	1.7	10
136	Theoretical insights into tunable electronic and optical properties of Janus Al ₂ SSe monolayer through strain and electric field. Optik, 2021, 238, 166761.	1.4	10
137	Fluorinating the graphene-like BeO monolayer: A spin-polarized first principles study of the electronic, magnetic and optical properties. Physica Scripta, 2020, 95, 105806.	1.2	10
138	Novel Janus GaInX ₃ (X = S, Se, Te) single-layers: first-principles prediction on structural, electronic, and transport properties. RSC Advances, 2022, 12, 7973-7979.	1.7	10
139	Ni-doped WO ₃ flakes-based sensor for fast and selective detection of H ₂ S. Journal of Materials Science: Materials in Electronics, 2020, 31, 12783-12795.	1.1	9
140	Strain-tunable electronic, optical and thermoelectric properties of BP monolayer investigated by FP-LAPW calculations. Physica B: Condensed Matter, 2021, 603, 412757.	1.3	9
141	First-principles calculations to investigate electronic properties of ZnO/PtSSe van der Waals heterostructure: Effects of vertical strain and electric field. Chemical Physics, 2021, 551, 111333.	0.9	9
142	Calculations within DFT framework of the electronic and optical properties of quaternary sulfide Ti ₂ PbSiS ₄ , a prospective optoelectronic semiconductor. Computational Condensed Matter, 2019, 21, e00392.	0.9	8
143	Optical and electronic properties of lithium thiogallate (LiGaS ₂): experiment and theory. RSC Advances, 2020, 10, 26843-26852.	1.7	8
144	First-principles study of structure, electronic properties and stability of tungsten adsorption on TiC(111) surface with disordered vacancies. Physica B: Condensed Matter, 2017, 526, 28-36.	1.3	7

#	ARTICLE	IF	CITATIONS
145	Structural properties and variable-range hopping conductivity of Cu ₂ SnS ₃ . Materials Research Express, 2019, 6, 055915.	0.8	7
146	Electronic and optical properties of wide band gap Tl ₃ TaS ₄ : A promising surface acoustic wave material. Optical Materials, 2020, 99, 109601.	1.7	7
147	LiCl monolayer for UV detection: First principles prediction. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 123, 114168.	1.3	7
148	Electronic structure and optical performance of PbI ₂ /SnSe ₂ heterostructure. Chemical Physics, 2020, 533, 110736.	0.9	7
149	Valence-band electronic structure and main optical properties of Cu ₂ HgGeTe ₄ : Theoretical simulation within a DFT framework and experimental XPS study. Materials Today Communications, 2020, 23, 100828.	0.9	7
150	Stacking effects in van der Waals heterostructures of blueP and Janus XYO (X = Ti, Zr, Hf; Y = S, Se) monolayers. RSC Advances, 2021, 11, 12189-12199.	1.7	7
151	A theoretical study on elastic, electronic, transport, optical and thermoelectric properties of Janus SnSO monolayer. Journal Physics D: Applied Physics, 2021, 54, 475306.	1.3	7
152	Highly anisotropic layered crystal AgBiP ₂ Se ₆ : Growth, electronic band-structure and optical properties. Materials Chemistry and Physics, 2022, 277, 125556.	2.0	7
153	Electronic structure and optical properties of defect chalcopyrite HgGa ₂ Se ₄ . Optical Materials, 2018, 75, 538-546.	1.7	6
154	Electronic structure and basic optical constants of TlHgBr ₃ : Density functional theory calculations. Optical Materials, 2018, 86, 191-197.	1.7	6
155	Tunable electronic properties of InSe by biaxial strain: from bulk to single-layer. Materials Research Express, 2019, 6, 115002.	0.8	6
156	Computational investigation of the structural, electronic, optical and thermoelectric properties of T ₂ -Al ₂ MgC ₂ compound. Journal of Solid State Chemistry, 2019, 280, 120999.	1.4	6
157	Computational understanding of the band alignment engineering in PbI ₂ /PtS ₂ heterostructure: Effects of electric field and vertical strain. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 115, 113706.	1.3	6
158	DFT calculations and experimental studies of the electronic structure and optical properties of Tl ₄ PbI ₆ . Optical Materials, 2021, 114, 110982.	1.7	6
159	Quantum magnetotransport properties of silicene: Influence of the acoustic phonon correction. Physical Review B, 2021, 104, .	1.1	6
160	Quaternary Tl ₂ CdGeSe ₄ selenide: Electronic structure and optical properties of a novel semiconductor for potential application in optoelectronics. Journal of Solid State Chemistry, 2021, 302, 122453.	1.4	6
161	XSnS ₃ (X = Ga, In) monolayer semiconductors as photo-catalysts for water splitting: a first principles study. Journal of Materials Chemistry C, 2022, 10, 11412-11423.	2.7	6
162	Electronic band-structure and optical constants of Pb ₂ GeS ₄ : Ab initio calculations and X-ray spectroscopy experiments. Journal of Materials Science: Materials in Electronics, 2018, 29, 16088-16100.	1.1	5

#	ARTICLE	IF	CITATIONS
163	Strain and electric field engineering of band alignment in InSe/Ca(OH) ₂ heterostructure. <i>Chemical Physics Letters</i> , 2019, 732, 136649.	1.2	5
164	Theoretical prediction of electronic and optical properties of haft-hydrogenated InN monolayers. <i>Superlattices and Microstructures</i> , 2020, 142, 106519.	1.4	5
165	Ab initio Insight of the Electronic, Structural, Mechanical and Optical Properties of X ₃ P ₂ (X= Mg, Ca) from GGA and Hybrid Functional (HSE06). <i>Journal of Superconductivity and Novel Magnetism</i> , 2022, 35, 79-86.	0.8	5
166	Structural, electronic, and transport properties of Janus GaInX ₂ (X = S, Se, Te) monolayers: first-principles study. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 045501.	0.7	5
167	Novel Janus group III chalcogenide monolayers Al ₂ XY ₂ (X/Y = S, Se, Te): first-principles insight onto the structural, electronic, and transport properties. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 115601.	0.7	5
168	Monoelemental two-dimensional iodine nanosheets: a first-principles study of the electronic and optical properties. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 135104.	1.3	5
169	Effect of DFT methods on electronic structure and K-absorption spectra of InPS ₄ : detailed studies of the optical, thermoelectric and elastic properties. <i>Materials Research Express</i> , 2019, 6, 106320.	0.8	4
170	Electronic structure and band alignment of Blue Phosphorene/Janus ZrSSe heterostructure: A first principles study. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 124, 114369.	1.3	4
171	Highly anisotropic layered selenophosphate AgSbP ₂ Se ₆ : The electronic structure and optical properties by experimental measurements and first-principles calculations. <i>Chemical Physics</i> , 2020, 536, 110813.	0.9	4
172	Ab initio study of the structural, electronic, optical and elastic properties of promising optoelectronic and thermoelectric compounds MgSc ₂ X ₄ (X = S; Se). <i>Journal of Solid State Chemistry</i> , 2021, 293, 121763.	1.4	4
173	A DFT Study of Structural, Elastic, Thermodynamic, Magneto-optical, and Electrical Properties of Double-Perovskite Bi ₂ CrMO ₆ (M = Zn, Ni) Using CGA and TB-mBj Functionals. <i>Journal of Superconductivity and Novel Magnetism</i> , 2021, 34, 2105-2119.	0.8	4
174	Janus monolayer HfSO with improved optical properties as a novel material for photovoltaic and photocatalyst applications. <i>New Journal of Chemistry</i> , 2022, 46, 1557-1568.	1.4	4
175	Growth of a novel K _{0.4} Rb _{0.6} Pb ₂ Cl ₅ crystal and theoretical and experimental studies of its electronic and optical properties. <i>Optical Materials</i> , 2022, 124, 112050.	1.7	4
176	Layered post-transition-metal dichalcogenide SnGe ₂ N ₄ as a promising photoelectric material: a DFT study. <i>RSC Advances</i> , 2022, 12, 10249-10257.	1.7	4
177	High-temperature orthorhombic phase of Cu ₂ HgGeS ₄ : Electronic structure and principal optical constants as evidenced from the experiment and theory. <i>Journal of Solid State Chemistry</i> , 2022, 313, 123313.	1.4	4
178	Electronic structure and interface contact of two-dimensional van der Waals boron phosphide/Ga ₂ SSe heterostructures. <i>RSC Advances</i> , 2022, 12, 19115-19121.	1.7	4
179	Experimental and theoretical study of the electronic energy structure of phosphorus containing sulfides InPS ₄ , Tl ₃ PS ₄ and Sn ₂ P ₂ S ₆ . <i>Journal of Structural Chemistry</i> , 2017, 58, 1220-1225.	0.3	3
180	DFT-investigation on anisotropy degree of electronic, optical, and mechanical properties of olivine ZnRE ₂ S ₄ (RE = Er, Tm) compounds. <i>Materials Research Express</i> , 2020, 7, 016305.	0.8	3

#	ARTICLE	IF	CITATIONS
181	On the in-plane electronic thermal conductivity of biased nanosheet \hat{I}^2_{12} -borophene. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 6318-6325.	1.3	3
182	Electronic and optical properties of gyrotropic \hat{I}_{\pm} -Hg ₃ S ₂ Cl ₂ : insights from an ab initio study. <i>Indian Journal of Physics</i> , 2021, 95, 73-82.	0.9	3
183	Theoretical prediction of Janus PdXO (X = S, Se, Te) monolayers: structural, electronic, and transport properties. <i>RSC Advances</i> , 2022, 12, 12971-12977.	1.7	2
184	Antiferromagnetic ordering in the TM-adsorbed AlN monolayer (TM = V and Cr). <i>RSC Advances</i> , 2022, 12, 16677-16683.	1.7	2
185	Quantum-mechanical calculations for the electron structure of phosphorus-containing sulfides Sn ₂ P ₂ S ₆ and Ti ₃ PS ₄ . <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2015, 79, 802-806.	0.1	1
186	Proposal of new spinel oxides semiconductors ZnGaO ₂ , [ZnGaO ₂]:Mn ³⁺ and Rh ³⁺ : ab-initio calculations and prospects for thermophysical and optoelectronic applications. <i>Journal of Molecular Graphics and Modelling</i> , 2020, 101, 107750.	1.3	1
187	Ab initio calculations of Electronic, Magneto-Optical, and Transport Properties of the Ga _{1-2x} S _m xEu _x N alloy (x = 0.0625) by GGA, GGA+U, and TB-mBj approximations. <i>Indian Journal of Physics</i> , 2022, 96, 2783-2794.	0.6	1
188	Intriguing interfacial characteristics of the CS contact with MX ₂ (M = Mo, W; X = S, Se). <i>Tj ETQq0 0 0 1.7</i>	1.7	1