

# Novel Two-Dimensional Layered $\text{MoSi}_2\text{Z}_4$ ( $\text{Z} = \text{P}, \text{As}$ ): N Materials

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Magnetic properties of NbSi <sub>2</sub> N <sub>4</sub> , VSi <sub>2</sub> N <sub>4</sub> , and VSi <sub>2</sub> P <sub>4</sub> monolayers. Applied Physics Letters, 2021, 119, .	3.3	43
2	Vertical strain-induced modification of the electrical and spin properties of monolayer MoSi <sub>2</sub> X <sub>4</sub> (X = N, P, As and Sb). Journal Physics D: Applied Physics, 2021, 54, 485302.	2.8	9
3	Switchable valley polarization and quantum anomalous Hall state in the VN <sub>2</sub> X <sub>2</sub> Y <sub>2</sub> nanosheets (X=III and Y=VI elements). Applied Physics Letters, 2021, 119, .	3.3	22
4	Theoretical Study on the Electronic Structure and Magnetic Properties Regulation of Janus Structure of M <sup>TM</sup> MCO <sub>2</sub> 2D MXenes. Nanomaterials, 2022, 12, 556.	4.1	6
5	Layered post-transition-metal dichalcogenide SnGe <sub>2</sub> N <sub>4</sub> as a promising photoelectric material: a DFT study. RSC Advances, 2022, 12, 10249-10257.	3.6	4
6	Theoretical Insights into the Hydrogen Evolution Reaction on VGe <sub>2</sub> N <sub>4</sub> and NbGe <sub>2</sub> N <sub>4</sub> Monolayers. ACS Omega, 2022, 7, 7837-7844.	3.5	11
7	Two-Dimensional Type-II BP/MoSi <sub>2</sub> P <sub>4</sub> vdW Heterostructures for High-Performance Solar Cells. Journal of Physical Chemistry C, 2022, 126, 4677-4683.	3.1	22
8	Manipulable Electronic and Optical Properties of Two-Dimensional MoSTe/MoGe <sub>2</sub> N <sub>4</sub> van der Waals Heterostructures. Nanomaterials, 2021, 11, 3338.	4.1	8
9	First-principles study of two-dimensional MoN <sub>2</sub> X <sub>2</sub> Y <sub>2</sub> (X=B) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 442 Td (xmlns:mml="http://	6.1	9
10	with peculiar electronic and magnetic properties. Applied Surface Science, 2022, 593, 153317. Controllable Schottky barriers and contact types of BN intercalation layers in graphene/MoSi <sub>2</sub> As <sub>4</sub> vdW heterostructures via applying an external electrical field. Physical Chemistry Chemical Physics, 2022, 24, 18331-18339.	2.8	5
11	Chiral phonons entangled with multiple Hall effects and unified convention for pseudoangular momentum in two-dimensional materials. Physical Review B, 2022, 105, .	3.2	4
12	A stable low-symmetry T-phase of MSi <sub>2</sub> Z <sub>4</sub> (M = Mo, W; Z = P, As) nanosheets with promising electronic and photovoltaic properties: Insight from first-principles calculations. Applied Physics Letters, 2022, 121, 073101.	3.3	1
13	Strain modulated electronic and optical properties of laterally stitched MoSi <sub>2</sub> N <sub>4</sub> /XSi <sub>2</sub> N <sub>4</sub> (X=W, Ti) 2D heterostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 144, 115471.	2.7	12
14	The First-Principle Study on Tuning Optical Properties of MA <sub>2</sub> Z <sub>4</sub> by Cr Replacement of Mo Atoms in MoSi <sub>2</sub> N <sub>4</sub> . Nanomaterials, 2022, 12, 2822.	4.1	4
15	A comprehensive study of complex non-adiabatic exciton dynamics in MoSi <sub>2</sub> N <sub>4</sub> . Materials Today Physics, 2022, 27, 100814.	6.0	8
16	Emergence of Rashba splitting and spin-valley properties in Janus MoGeSiP <sub>2</sub> As <sub>2</sub> and WGeSiP <sub>2</sub> As <sub>2</sub> monolayers. Journal of Magnetism and Magnetic Materials, 2022, 563, 169897.	2.3	12
17	Two-dimensional type-II XSi <sub>2</sub> P <sub>4</sub> /MoTe <sub>2</sub> (X = Mo, W) van der Waals heterostructures with tunable electronic and optical properties. New Journal of Chemistry, 0, , .	2.8	3
18	High hole mobilities in two dimensional monolayer MSi <sub>2</sub> Z <sub>4</sub> (M = Mo/W; Z = P,) Tj ETQq1 1 0.7843 1 4 rgBT /Ov	5.5	2

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19	Blue phosphorene/MoSi <sub>2</sub> N <sub>4</sub> van der Waals type-II heterostructure: Highly efficient bifunctional materials for photocatalytics and photovoltaics. Chinese Physics B, 2023, 32, 027104.	1.4	0
20	Electronic Transport Properties and Nanodevice Designs for Monolayer MoSi <sub>2</sub> N <sub>4</sub> and its P-doped Variant. Physical Review Applied, 2022, 18, .	3.1	0
21	First-principles study on the structural properties of 2D MXene SnSiGeN <sub>4</sub> and its electronic properties under the effects of strain and an external electric field. RSC Advances, 2022, 12, 29113-29123.	3.6	5
22	Enhancement effect on Raman spectra in two-dimensional MoSi <sub>2</sub> N <sub>4</sub> . Physical Chemistry Chemical Physics, 2023, 25, 7278-7288.	1.9	5
23	Excitons and light-emission in semiconducting MoSi <sub>2</sub> X <sub>4</sub> two-dimensional materials. Npj 2D Materials and Applications, 2022, 6, .	7.9	37
24	Theoretical study on the electronic and transport properties of top and edge contact MoSi <sub>2</sub> N <sub>4</sub> /Au heterostructure. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 456, 128535.	2.1	2
25	Field-Effect Transistors Based on Two-dimensional Materials (Invited)., 2023, 8, 1-14.		1
26	Tuning of the electronic and photocatalytic properties of Janus WSiGeZ <sub>4</sub> (Z = N, P, and As) monolayers via strain engineering. Physical Chemistry Chemical Physics, 2023, 25, 7278-7288.	2.8	12
27	Electronic and Excitonic Properties of MSi <sub>2</sub> Z <sub>4</sub> Monolayers. Small, 2023, 19, .	10.0	10
28	Correlation-Driven Topological Transition in Janus Two-Dimensional Vanadates. Materials, 2023, 16, 1649.	2.9	5
29	Two-dimensional Janus MGeSiP <sub>4</sub> (M = Ti, Zr, and Hf) with an indirect band gap and high carrier mobilities: first-principles calculations. Physical Chemistry Chemical Physics, 2023, 25, 8779-8788.	2.8	5
30	Fluence dependent dynamics of excitons in monolayer MoSi <sub>2</sub> Z <sub>4</sub> (Z =) Tj ETQq1 1 0.784314 rgBT /Qverlock	1.8	10
31	Hard-breakable Ohmic contact in 2D CrSi <sub>2</sub> N <sub>4</sub> -metal heterostructures: A DFT study. AIP Advances, 2023, 13, 035127.	1.3	0
32	First-principles investigation on the structural, vibrational, mechanical, electronic, and optical properties of M <sub>2</sub> Si <sub>2</sub> Z <sub>4</sub> (M = Ti, Zr, and Hf) monolayers. Physical Chemistry Chemical Physics, 2023, 25, 8779-8788.		

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37	Flexible MA <sub>2</sub> Z <sub>4</sub> (M = Mo, W; A = Si, Ge and Z = N, P, As) monolayers with outstanding mechanical, dynamical, electronic, and piezoelectric properties and anomalous dynamic polarization. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 18247-18258.	2.8	7
38	Intralayer spatial carrier separation capability for visible light driven photocatalytic properties of SnGe <sub>2</sub> N <sub>4</sub> -layered nanostructure: A first-principles study. <i>AIP Advances</i> , 2023, 13, .	1.3	2
39	Enhanced performance of Janus XMSiY <sub>2</sub> (X=S, Se; M=Mo, W; and Y=N, P) monolayers for photocatalytic water splitting via strain engineering. <i>Journal of Physics and Chemistry of Solids</i> , 2023, 181, 111561.	4.0	3
40	Room temperature electron-hole liquid phase in monolayer MoSi <sub>2</sub> Z <sub>4</sub> (Z = ) Tj ETQq1 1 0.784314 rgBT /Overlock 10	4.4	0
41	Moderate direct band-gap energies and high carrier mobilities of Janus XWSiP <sub>2</sub> (X = S, Se,) Tj ETQq0 0.0 rgBT /Overlock 10	2.8	0
42	Monolayer polar metals with large piezoelectricity derived from MoSi <sub>2</sub> N <sub>4</sub> . <i>Materials Horizons</i> , 0, , .	12.2	0
43	Highly stable two-dimensional $\hat{1}$ -MA <sub>2</sub> Z <sub>4</sub> (M = Mg, Ca, Sr; A = Al; Z = S, Se) monolayers with promising photocatalysis and piezoresistive effect. <i>Applied Physics Letters</i> , 2023, 123, .	3.3	0
44	Electronic and half-metallic properties of novel two-dimensional YSi <sub>2</sub> N <sub>4</sub> monolayer by theoretical exploration. <i>Materials Science in Semiconductor Processing</i> , 2024, 169, 107862.	4.0	0
45	Crystal lattice and electronic and transport properties of Janus ZrSiSZ <sub>2</sub> (Z = N, P, As) monolayers by first-principles investigations. <i>Nanoscale Advances</i> , 2023, 5, 6705-6713.	4.6	1
46	Tunable structural phases and electronic properties of group V MSi <sub>2</sub> N <sub>4</sub> (M = ) Tj ETQq1 1 0.784314 rgBT /Overlock 10 <i>Chemistry C</i> , 2023, 11, 17034-17043.	5.5	0
47	Two-dimensional MSi <sub>2</sub> N <sub>4</sub> (M = Ge, Sn, and Pb) monolayers: promising new materials for optoelectronic applications. <i>2D Materials</i> , 2024, 11, 015016.	4.4	0
48	Composition-Dependent Absorption of Radiation in Semiconducting MSi <sub>2</sub> Z <sub>4</sub> Monolayers. <i>Physica Status Solidi (B): Basic Research</i> , 2024, 261, .	1.5	0
49	Interlayer-coupling-engineerable flat bands in twisted MoSi <sub>2</sub> N <sub>4</sub> bilayers. <i>Journal of Physics Condensed Matter</i> , 2024, 36, 165501.	1.8	0
50	Single-layer and bilayer In <sub>2</sub> SeO <sub>2</sub> : Direct bandgap and reduced exciton binding from first-principles calculation. <i>Chemical Physics</i> , 2024, 580, 112232.	1.9	0
51	Density Functional Theory Studies of van der Waals Heterostructures Comprised of MoSi <sub>2</sub> P <sub>4</sub> and BAs Monolayers for Solar Cell Applications. <i>ACS Applied Nano Materials</i> , 2024, 7, 6704-6711.	5.0	0
52	Computational investigation on 2D Janus MSiGeN <sub>4</sub> with structural, electronic properties, quantum capacitance, and photocatalytic activity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2024, 689, 133712.	4.7	0