Piezoelectric properties in two-dimensional materials:

Materials Today 21, 611-630 DOI: 10.1016/j.mattod.2018.01.031

Citation Report

#	Article	IF	CITATIONS
1	Two-dimensional nanomaterials for novel piezotronics and piezophototronics. Materials Today Nano, 2018, 4, 17-31.	2.3	97
2	Piezotronics and piezo-phototronics with third-generation semiconductors. MRS Bulletin, 2018, 43, 922-927.	1.7	121
3	Theory of piezotronics and piezo-phototronics. MRS Bulletin, 2018, 43, 928-935.	1.7	66
4	Large piezoelectric response of van der Waals layered solids. Journal of Materials Chemistry C, 2018, 6, 11035-11044.	2.7	19
5	New monolayer ternary In-containing sesquichalcogenides BilnSe ₃ , SbInSe ₃ , BilnTe ₃ , and SbInTe ₃ with high stability and extraordinary piezoelectric properties. Physical Chemistry Chemical Physics, 2018, 20, 19177-19187.	1.3	38
6	Two-Dimensional van der Waals Materials with Aligned In-Plane Polarization and Large Piezoelectric Effect for Self-Powered Piezoelectric Sensors. Nano Letters, 2019, 19, 5410-5416.	4.5	132
7	Accelerated Discovery of Two-Dimensional Optoelectronic Octahedral Oxyhalides via High-Throughput <i>Ab Initio</i> Calculations and Machine Learning. Journal of Physical Chemistry Letters, 2019, 10, 6734-6740.	2.1	40
8	Large out-of-plane piezoelectricity of oxygen functionalized MXenes for ultrathin piezoelectric cantilevers and diaphragms. Nano Energy, 2019, 65, 104058.	8.2	49
9	Multicomponent nanostructured materials and interfaces for efficient piezoelectricity. Nano Structures Nano Objects, 2019, 17, 148-184.	1.9	35
10	On the piezopotential properties of two-dimensional materials. Nano Energy, 2019, 58, 568-578.	8.2	37
11	Robust Piezo-Phototronic Effect in Multilayer Î ³ -InSe for High-Performance Self-Powered Flexible Photodetectors. ACS Nano, 2019, 13, 7291-7299.	7.3	118
12	Piezoelectricity and electrostriction in ferroelastic materials with polar twin boundaries and domain junctions. Applied Physics Letters, 2019, 114, .	1.5	21
13	Piezoelectric nanotransducers. Nano Energy, 2019, 59, 730-744.	8.2	51
14	2D piezotronics in atomically thin zinc oxide sheets: Interfacing gating and channel width gating. Nano Energy, 2019, 60, 724-733.	8.2	60
15	Intrinsic bending flexoelectric constants in two-dimensional materials. Physical Review B, 2019, 99, .	1.1	68
16	Lowâ€Voltage Operational, Lowâ€Power Consuming, and High Sensitive Tactile Switch Based on 2D Layered InSe Tribotronics. Advanced Functional Materials, 2019, 29, 1809119.	7.8	28
17	Temperature-dependent piezotronic effect of MoS2 monolayer. Nano Energy, 2019, 58, 811-816.	8.2	26
18	Piezoelectric Effects in Surface-Engineered Two-Dimensional Group III Nitrides. ACS Applied Materials & Interfaces, 2019, 11, 1033-1039.	4.0	47

#	Article	IF	CITATIONS
19	A review on Raman finger prints of doping and strain effect in TMDCs. Microelectronic Engineering, 2020, 219, 111152.	1.1	67
20	Shape- and size dependent piezoelectric properties of monolayer hexagonal boron nitride nanosheets. Nanoscale Advances, 2020, 2, 470-477.	2.2	15
21	Enhanced Piezoelectric Effect Derived from Grain Boundary in MoS ₂ Monolayers. Nano Letters, 2020, 20, 201-207.	4.5	66
22	Density Functional Theory Study of Epitaxially Strained Monolayer Transition Metal Chalcogenides for Piezoelectricity Generation. ACS Applied Nano Materials, 2020, 3, 384-390.	2.4	13
23	Mechanical-spring model on ZnO submicron rods for a steady response on vertically integrated nanogenerators at multiple harvesting frequencies. Microelectronic Engineering, 2020, 222, 111199.	1.1	0
24	Low Voltage and Ferroelectric 2D Electron Devices Using Leadâ€Free Ba x Sr 1â€x TiO 3 and MoS 2 Channel. Advanced Functional Materials, 2020, 30, 1908210.	7.8	16
25	A nonlocal continuum model for the piezopotential of two-dimensional semiconductors. Journal Physics D: Applied Physics, 2020, 53, 045303.	1.3	2
26	Mechanical properties of monolayer antimony carbide: A molecular dynamics simulation. Materials Today Communications, 2020, 22, 100817.	0.9	0
27	Outâ€ofâ€Plane Polarization in Bent Graphene‣ike Zinc Oxide and Nanogenerator Applications. Advanced Functional Materials, 2020, 30, 1907885.	7.8	18
28	Acoustic Gain in Solids due to Piezoelectricity, Flexoelectricity, and Electrostriction. Advanced Functional Materials, 2020, 30, 2003503.	7.8	10
29	Stable and high-performance piezoelectric sensor via CVD grown WS ₂ . Nanotechnology, 2020, 31, 445203.	1.3	25
30	New direction's piezoelectricity and new applications of two-dimensional group V-IV-III-VI films: A theoretical study. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 124, 114214.	1.3	9
31	Enhanced Piezoelectric Response of Layered In ₂ Se ₃ /MoS ₂ Nanosheet-Based van der Waals Heterostructures. ACS Applied Nano Materials, 2020, 3, 11979-11986.	2.4	44
32	Two-Dimensional Material-Based Biosensors for Virus Detection. ACS Sensors, 2020, 5, 3739-3769.	4.0	73
33	Epitaxial electrodeposition of single crystal MoTe2 nanorods and Li+ storage feasibility. Journal of Electroanalytical Chemistry, 2020, 878, 114672.	1.9	17
34	Assembly of a patchy protein into variable 2D lattices via tunable multiscale interactions. Nature Communications, 2020, 11, 3770.	5.8	31
35	Piezoelectric Responses of Mechanically Exfoliated Two-Dimensional SnS ₂ Nanosheets. ACS Applied Materials & Interfaces, 2020, 12, 51662-51668.	4.0	45
36	A review of molybdenum disulfide (MoS ₂) based photodetectors: from ultra-broadband, self-powered to flexible devices. RSC Advances, 2020, 10, 30529-30602.	1.7	211

#	Article	IF	CITATIONS
37	Progress in lead-free piezoelectric nanofiller materials and related composite nanogenerator devices. Nanoscale Advances, 2020, 2, 3131-3149.	2.2	62
38	Zero-writing-power tribotronic MoS2 touch memory. Nano Energy, 2020, 75, 104936.	8.2	11
39	Piezopotential-driven simulated electrocatalytic nanosystem of ultrasmall MoC quantum dots encapsulated in ultrathin N-doped graphene vesicles for superhigh H2 production from pure water. Nano Energy, 2020, 75, 104990.	8.2	64
40	Ultra-low thermal conductivity and super-slow hot-carrier thermalization induced by a huge phononic gap in multifunctional nanoscale boron pnictides. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 124, 114222.	1.3	21
41	Piezo/Tribotronics Toward Smart Flexible Sensors. Advanced Intelligent Systems, 2020, 2, 1900175.	3.3	33
42	Properties of two-dimensional nanomaterials. , 2020, , 73-100.		7
43	A high performance flexible two dimensional vertically aligned ZnO nanodisc based piezoelectric nanogenerator <i>via</i> surface passivation. Nanoscale Advances, 2020, 2, 2044-2051.	2.2	24
44	Mechanical properties of two-dimensional materials: atomistic modeling and future directions. , 2020, , 9-35.		4
45	WSe ₂ 2D pâ€ŧype semiconductorâ€based electronic devices for information technology: Design, preparation, and applications. InformaÄnÃ-Materiály, 2020, 2, 656-697.	8.5	115
46	Peculiar piezoelectricity of atomically thin planar structures. Nanoscale, 2020, 12, 2875-2901.	2.8	44
47	Square CdS Micro/Nanosheets as Efficient Photo/Piezo-bi-Catalyst for Hydrogen Production. Catalysis Letters, 2020, 150, 3059-3070.	1.4	24
48	Penta-BCN: A New Ternary Pentagonal Monolayer with Intrinsic Piezoelectricity. Journal of Physical Chemistry Letters, 2020, 11, 3501-3506.	2.1	80
49	Piezoelectric boron nitride nanosheets for high performance energy harvesting devices. Nano Energy, 2021, 80, 105561.	8.2	49
50	Research methodsÂof contact electrification: Theoretical simulation and experiment. Nano Energy, 2021, 79, 105501.	8.2	23
51	Influence of oleylamine–functionalized boron nitride nanosheets on the crystalline phases, mechanical and piezoelectric properties of electrospun PVDF nanofibers. Composites Science and Technology, 2021, 203, 108570.	3.8	20
52	Piezo-response in two-dimensional α-Tellurene films. Materials Today, 2021, 44, 40-47.	8.3	9
53	Achieving Ultrahigh Piezoelectricity in Organic–Inorganic Vacancy-Ordered Halide Double Perovskites for Mechanical Energy Harvesting. ACS Energy Letters, 2021, 6, 16-23.	8.8	28
54	Tunable Optical Properties of 2D Materials and Their Applications. Advanced Optical Materials, 2021, 9, 2001313.	3.6	100

#	Article	IF	CITATIONS
55	Patchable and Implantable 2D Nanogenerator. Small, 2021, 17, e1903519.	5.2	30
56	Emerging Pyroelectric Nanogenerators to Convert Thermal Energy into Electrical Energy. Small, 2021, 17, e1903469.	5.2	84
57	A review of strain sensors based on two-dimensional molybdenum disulfide. Journal of Materials Chemistry C, 2021, 9, 9083-9101.	2.7	23
58	Efficiently harvesting the ultrasonic vibration energy of two-dimensional graphitic carbon nitride for piezocatalytic degradation of dichlorophenols. Environmental Science: Nano, 2021, 8, 1398-1407.	2.2	42
59	Improved anisotropy and piezoelectricity by applying in-plane deformation in monolayer WS ₂ . Journal of Materials Chemistry C, 2021, 9, 1396-1400.	2.7	8
60	Emerging Energy Harvesting Technology for Electro/Photo-Catalytic Water Splitting Application. Catalysts, 2021, 11, 142.	1.6	24
61	Emerging beyond-graphene elemental 2D materials for energy and catalysis applications. Chemical Society Reviews, 2021, 50, 10983-11031.	18.7	170
62	Janus 2D titanium nitride halide TiNX _{0.5} Y _{0.5} (X, Y = F, Cl, or Br, and X ≠Y) monolayers with giant out-of-plane piezoelectricity and high carrier mobility. Physical Chemistry Chemical Physics, 2021, 23, 3637-3645.	1.3	15
63	Anisotropic correlation between the piezoelectricity and anion-polarizability difference in 2D phosphorene-type ternary GaXY (X = Se, Te; Y = F, Cl, Br, I) monolayers. Journal of Materials Sc 56, 8024-8036.	ien icre , 202	1,9
64	Control of Elastic behavior in smart material integrated shallow spherical composite panel using HOSDT kinematics. Composite Structures, 2021, 260, 113504.	3.1	5
65	Constructing Electron Levers in Perovskite Nanocrystals to Regulate the Local Electron Density for Intensive Chemodynamic Therapy. Angewandte Chemie - International Edition, 2021, 60, 8905-8912.	7.2	83
66	Quantitative probe for in-plane piezoelectric coupling in 2D materials. Scientific Reports, 2021, 11, 7066.	1.6	7
67	Enhanced mechanical energy conversion with selectively decayed wood. Science Advances, 2021, 7, .	4.7	51
68	Constructing Electron Levers in Perovskite Nanocrystals to Regulate the Local Electron Density for Intensive Chemodynamic Therapy. Angewandte Chemie, 2021, 133, 8987-8994.	1.6	15
69	Piezoelectricity of Janus Sb2Se2Te monolayers: A first-principles study. Journal of Applied Physics, 2021, 129, .	1.1	26
70	Molecular simulations of charged complex fluids: A review. Chinese Journal of Chemical Engineering, 2021, 31, 206-226.	1.7	11
71	Giant Piezoelectricity of Janus Mâ,,SeX (M = Ge, Sn; X = S, Te) Monolayers. IEEE Electron Device Letters, 2021, 42, 561-564.	2.2	25
72	Scavenging Energy Sources Using Ferroelectric Materials. Advanced Functional Materials, 2021, 31, 2100905.	7.8	28

#	Article	IF	CITATIONS
73	Maximum piezoelectricity in a few unit-cell thick planar ZnO – A liquid metal-based synthesis approach. Materials Today, 2021, 44, 69-77.	8.3	44
74	Exciton–Plasmon Coupling in 2D Semiconductors Accessed by Surface Acoustic Waves. ACS Photonics, 2021, 8, 1698-1704.	3.2	11
75	Construction of Bioâ€Piezoelectric Platforms: From Structures and Synthesis to Applications. Advanced Materials, 2021, 33, e2008452.	11.1	114
76	Enhanced Piezoelectric Output Performance of the SnS ₂ /SnS Heterostructure Thin-Film Piezoelectric Nanogenerator Realized by Atomic Layer Deposition. ACS Nano, 2021, 15, 10428-10436.	7.3	28
77	The Effects of Random Porosities in Resonant Frequencies of Graphene Based on the Monte Carlo Stochastic Finite Element Model. International Journal of Molecular Sciences, 2021, 22, 4814.	1.8	6
78	Energy harvesting from g-C3N4 piezoelectric nanogenerators. Nano Energy, 2021, 83, 105743.	8.2	55
79	Emerging Energy Harvesting Materials and Devices for Selfâ€Powered Water Disinfection. Small Methods, 2021, 5, e2100093.	4.6	10
80	Flexoelectric electricity generation by crumpling graphene. Journal of Applied Physics, 2021, 129, .	1.1	5
81	Anomalous Anisotropy of the Piezoelectric Response in 2D Copperâ€Based Ternary Chalcogenides CuMX ₂ . Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100304.	1.2	3
82	1,2,4-Azadiphosphole-based piezoelectric penta-CNP sheet with high spontaneous polarization. Applied Surface Science, 2021, 554, 149499.	3.1	21
83	Evidence of flexoelectricity in graphene nanobubbles created by tip induced electric field. Carbon, 2021, 179, 677-682.	5.4	6
84	Electronic, Vibrational, Elastic, and Piezoelectric Properties of Hâ€, Fâ€Functionalized AlN Sheets. Physica Status Solidi (B): Basic Research, 2021, 258, 2100216.	0.7	3
85	Piezotronics in twoâ€dimensional materials. InformaÄnÃ-Materiály, 2021, 3, 987-1007.	8.5	54
86	2D Layered Dipeptide Crystals for Piezoelectric Applications. Advanced Functional Materials, 2021, 31, 2102524.	7.8	21
87	Large in-plane piezoelectricity of Janus Bi2X2Y (XÂ=ÂS, Se, te; YÂ=ÂS, Se, te; XÂâ‰ÂY) monolayers with polyaton thickness. Materials Letters, 2021, 296, 129878.	nic 1.3	5
88	Efficient piezocatalytic removal of BPA and Cr(VI) with SnS2/CNFs membrane by harvesting vibration energy. Nano Energy, 2021, 86, 106036.	8.2	74
89	Shape-dependent in-plane piezoelectric response of SnSe nanowall/microspheres. Nano Energy, 2021, 88, 106231.	8.2	10
90	Changes in Permittivity of the Piezoelectric Material PVDF as Functions of the Electrical Field and Temperature. Materials, 2021, 14, 5736.	1.3	4

#	Article	IF	CITATIONS
91	Enhanced piezocatalysis of polymorphic few-layered MoS2 nanosheets by phase engineering. Nano Energy, 2021, 90, 106527.	8.2	52
92	Investigating the role of chalcogen atom in the piezoelectric performance of PVDF/TMDCs based flexible nanogenerator. Energy, 2022, 239, 122125.	4.5	21
93	Multiscale numerical simulation of in-plane mechanical properties of two-dimensional monolayers. RSC Advances, 2021, 11, 20232-20247.	1.7	8
94	Conflux of tunable Rashba effect and piezoelectricity in flexible magnesium monochalcogenide monolayers for next-generation spintronic devices. Nanoscale, 2021, 13, 8210-8223.	2.8	19
95	Mechanics of free-standing inorganic and molecular 2D materials. Nanoscale, 2021, 13, 1443-1484.	2.8	28
96	Large piezoelectric and thermal expansion coefficients with negative Poisson's ratio in strain-modulated tellurene. Nanoscale Advances, 2021, 3, 3279-3287.	2.2	7
97	Atomic-Step-Induced Screw-Dislocation-Driven Spiral Growth of SnS. Chemistry of Materials, 2021, 33, 186-194.	3.2	16
98	Emerging Devices Based on Two-Dimensional Monolayer Materials for Energy Harvesting. Research, 2019, 2019, 7367828.	2.8	39
99	2D Materials Based Optoelectronic Memory: Convergence of Electronic Memory and Optical Sensor. Research, 2019, 2019, 9490413.	2.8	85
100	2D-Layered Nanomaterials for Energy Harvesting and Sensing Applications. , 0, , .		1
101	Piezoelectric Coefficient and Permittivity Changes in Piezoelectric Material ZnO as Functions of Applied Electric Field. , 2021, total, vibrational, elastic, piezoelectric, and electronic properties of		0
102	the Janus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow> <mml:mi>Bi</mml:mi> <mml:mi>X<td>> < mml:mi</td><td>Y</td></mml:mi></mml:mrow></mml:math 	> < mml:mi	Y

#	Article	IF	CITATIONS
109	Piezoelectricity of Janus BiTeX (X = Cl, Br, I) Monolayer: A First-Principles Study. IEEE Transactions on Electron Devices, 2021, , 1-5.	1.6	1
110	The coexistence of superior intrinsic piezoelectricity and thermoelectricity in two-dimensional Janus α-TeSSe. Physical Chemistry Chemical Physics, 2021, 23, 26955-26966.	1.3	10
111	MoS2 quantum sheets-PVDF nanocomposite film based self-poled piezoelectric nanogenerators and photovoltaically self-charging power cell. Nano Energy, 2022, 93, 106869.	8.2	21
112	The high piezoelectricity, flexibility and electronic properties of new Janus ZnXY2 (XÂ=ÂGe, Sn, Si and) Tj ETQq1	1 0.78431 3.1	4 rgBT /Ove
113	Highly stable electronic properties of rippled antimonene under compressive deformation. Physical Review B, 2022, 105, .	1.1	5
114	Oxide-free materials for thermoelectric and piezoelectric applications. , 2022, , 435-450.		0
115	A Review on Mechanochemistry: Approaching Advanced Energy Materials with Greener Force. Advanced Materials, 2022, 34, e2108327.	11.1	58
116	Piezoelectric nanofoams with the interlaced ultrathin graphene confining Zn–N–C dipoles for efficient piezocatalytic H2 evolution under low-frequency vibration. Journal of Energy Chemistry, 2022, 69, 115-122.	7.1	11
117	Synergetic contribution of enriched selenium vacancies and out-of-plane ferroelectric polarization in AB-stacked MoSe ₂ nanosheets as efficient piezocatalysts for TC degradation. New Journal of Chemistry, 2022, 46, 4666-4676.	1.4	6
118	Three-Dimensional Graphene Field Effect Transistors As Self-Powered Vibration Sensors. , 2022, , .		0
119	Boron materials for energy applications. , 2022, , 203-289.		1
120	Two-dimensional cobalt telluride as a piezo-tribogenerator. Nanoscale, 2022, 14, 7788-7797.	2.8	18
121	Enhanced Piezocatalytic Activity of Sns2 for Bisphenol a Degradation and Hydrogen Production Via Ion Size-Induced Lattice Strain Engineering. SSRN Electronic Journal, 0, , .	0.4	0
122	Indentation of piezoelectric micro- and nanostructures. International Journal of Modern Physics B, 2022, 36, .	1.0	1
123	Screening transition metal-based polar pentagonal monolayers with large piezoelectricity and shift current. Npj Computational Materials, 2022, 8, .	3.5	13
124	2D Materials for Wearable Energy Harvesting. Advanced Materials Technologies, 2022, 7, .	3.0	16
125	Ternary pentagonal BNSi monolayer: Two-dimensional structure with potentially high carrier mobility and strong excitonic effects for photocatalytic applications. Physical Review Materials, 2022, 6, .	0.9	15
126	Data-driven discovery of high performance layered van der Waals piezoelectric NbOl2. Nature Communications, 2022, 13, 1884.	5.8	22

#	Article	IF	CITATIONS
127	The piezoelectricity of 2D Janus ZnBrl: Multiscale prediction. Chemical Physics Letters, 2022, 794, 139506.	1.2	6
128	Tungsten disulfide nanosheets for piezoelectric nanogenerator and human-machine interface applications. Nano Energy, 2022, 97, 107172.	8.2	15
129	Ultra-efficient thermo-convective solution-growth of vertically aligned ZnO nanowires. Nano Energy, 2022, 97, 107167. Investigation of phase transition and the effect of stress on piezoelectric coefficients in three 2D	8.2	8
130	structures of <mˈml:math <br="" display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML">id="d1e503" altimg="si9.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">In</mml:mi </mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow>mathvariant="normal">Se</mml:msub></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow><td>o> cmml:m b> <td>sub><mm nrow></mm </td></td></mˈml:math>	o> cmml:m b> <td>sub><mm nrow></mm </td>	sub> <mm nrow></mm
131	Solid State Communications, 2022, 348-349, 114733. High performance piezoelectric energy harvesting based on PVDF-SnS2 nanocomposite. Materials Today: Proceedings, 2022, 62, 3239-3243.	0.9	1
132	Piezoelectric properties in two-dimensional GeC and its surface functionalization by chlorination, fluorination, and chloro-fluorination. Materials Science in Semiconductor Processing, 2022, 148, 106797.	1.9	2
133	Ferroelectricity in untwisted heterobilayers of transition metal dichalcogenides. Science, 2022, 376, 973-978.	6.0	105
134	Piezoelectric Semiconductor Nanomaterials in Sonodynamic Therapy: a Review. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2022, 37, 1170.	0.6	2
135	A penta-BCP sheet with strong piezoelectricity and a record high positive Poisson's ratio. Journal of Materials Chemistry C, 2022, 10, 10302-10309.	2.7	6
136	2D materials–polymer composites for developing piezoelectric energy-harvesting devices. , 2022, , 99-128.		2
137	Mechanically Induced Highly Efficient Hydrogen Evolution from Water over Piezoelectric SnSe nanosheets. Small, 2022, 18, .	5.2	22
138	Enhanced Piezoelectric Properties Enabled by Engineered Low-Dimensional Nanomaterials. ACS Applied Nano Materials, 2022, 5, 12126-12142.	2.4	18
140	An Investigation of Monolayer As _{1â^'} <i>_x</i> P <i>_x</i> Solid Solutions: From a Theoretical Perspective. Advanced Materials Interfaces, 2022, 9, .	1.9	0
141	Piezoelectricity across 2D Phase Boundaries. Advanced Materials, 2022, 34, .	11.1	11
142	Global structure search for new 2D PtSSe allotropes and their potential for thermoelectirc and piezoelectric applications. Chemical Physics Letters, 2022, 805, 139913.	1.2	3
143	Gapped edge states and quantum valley Hall effect in a planar honeycomb monolayer of group III–V binary compounds of the form BX (XÂ=ÂN, P, and As). Journal of Physics and Chemistry of Solids, 2022, 170, 110946.	1.9	1
144	Evolution Application of Two-Dimensional MoS2-Based Field-Effect Transistors. Nanomaterials, 2022, 12, 3233.	1.9	7
145	Piezoelectric-enhanced photocatalytic performance of porous carbon nitride nanosheets. Journal of Colloid and Interface Science, 2023, 630, 191-203.	5.0	15

#	Article	IF	CITATIONS
146	Solid-phase sintering and vapor-liquid-solid growth of BP@MgO quantum dot crystals with a high piezoelectric response. Journal of Advanced Ceramics, 2022, 11, 1725-1734.	8.9	12
147	Laser-Shock-Driven <i>In Situ</i> Evolution of Atomic Defect and Piezoelectricity in Graphitic Carbon Nitride for the Ionization in Mass Spectrometry. ACS Nano, 2022, 16, 18284-18297.	7.3	8
148	Piezoelectric properties in hydrofluorination surface-engineered two-dimensional ScN. , 2022, 171, 207424.		0
149	Bond-Orbital-Resolved Piezoelectricity in Sp2-Hybridized Monolayer Semiconductors. Materials, 2022, 15, 7788.	1.3	0
150	Emerging 2D Metal Oxides: From Synthesis to Device Integration. Advanced Materials, 2023, 35, .	11.1	18
151	Core-Shell structures for the enhancement of energy harvesting in piezoelectric Nanogenerators: A review. Sustainable Energy Technologies and Assessments, 2023, 55, 102982.	1.7	4
152	α-In2O3 monolayer: A promising material as field-effect phototransistor and out-of-plane piezoelectric device. Applied Surface Science, 2023, 614, 156198.	3.1	10
153	Realization of a piezoelectric quantum spin Hall phase with a large band gap in MBiH (M = Ga and In) monolayers. Journal of Materials Chemistry A, 2022, 10, 25683-25691.	5.2	1
154	Na ₂ Ba[Na ₂ Sn ₂ S ₇]: Structural Tolerance Factorâ€Guided NLO Performance Improvement. Angewandte Chemie, 2023, 135, .	1.6	0
155	Graphene and Two-Dimensional Materials-Based Flexible Electronics for Wearable Biomedical Sensors. Electronics (Switzerland), 2023, 12, 45.	1.8	3
156	Synthesis and enhanced piezoelectric response of CVD-grown SnSe layered nanosheets for flexible nanogenerators. Nano Research, 0, , .	5.8	2
157	Gradient expanded-structured graphene pressure sensor prepared by one-step laser reduction with superhigh sensitivity and ultrawide detection range. Smart Materials and Structures, 2023, 32, 025009.	1.8	0
158	Na ₂ Ba[Na ₂ Sn ₂ S ₇]: Structural Tolerance Factorâ€Guided NLO Performance Improvement. Angewandte Chemie - International Edition, 2023, 62, .	7.2	15
159	Enhanced piezocatalytic activity in ion-doped SnS2 via lattice distortion engineering for BPA degradation and hydrogen production. Nano Energy, 2023, 107, 108165.	8.2	24
160	First Principles calculation of Half metallic proprieties of QCrAs (Q=Hf, Ti and Zr). Journal of the Nigerian Society of Physical Sciences, 0, , 1029.	0.0	0
161	Emerging Trends in 2D TMDs Photodetectors and Piezoâ€Phototronic Devices. Small, 2023, 19, .	5.2	29
162	Ternary pentagonal BXN (X = C, Si, Ge, and Sn) sheets with high piezoelectricity. RSC Advances, 2023, 13, 9636-9641.	1.7	3
163	Piezoelectric generator based on centrosymmetric CdO film with (111) orientation and its atomic mechanism. Cell Reports Physical Science, 2023, , 101360.	2.8	1

#	Article	IF	CITATIONS
164	A review of piezoelectric energy harvesters for harvesting wind energy. Sensors and Actuators A: Physical, 2023, 352, 114190.	2.0	24
165	Negative piezoelectricity and enhanced electrical conductivity at the interfaces of two-dimensional dialkali oxide and chalcogenide monolayers. Physical Review B, 2023, 107, .	1.1	7
166	Monolayer group IV monochalcogenides T-MX (M = Sn, Ge; X = S, Se) with fine piezoelectric performance and stability. Applied Physics Letters, 2023, 122, .	1.5	5
167	Piezotronic and piezoâ \in phototronic effects on sonodynamic disease therapy. , 2023, 1, .		38
168	Theoretical design and discovery of twoâ€dimensional materials for nextâ€generation flexible piezotronics and energy conversion. , 2023, 2, .		2
169	Electronic, spintronic, and piezoelectric properties of new Janus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Zn</mml:mi><mml:mi>A<td>i><mml:m< td=""><td>i>X</td></mml:m<></td></mml:mi></mml:mrow></mml:math 	i> <mml:m< td=""><td>i>X</td></mml:m<>	i>X