Raihan Ahammed

List of Publications by Year
in descending order

17	863	566801 15	887659 17
papers	citations	h-index	g-index

17	17	17	690
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Emergence of high piezoelectricity along with robust electron mobility in Janus structures in semiconducting Group IVB dichalcogenide monolayers. Journal of Materials Chemistry A, 2018, 6, 24885-24898.	5.2	127
2	Nanoscale Interfaces of Janus Monolayers of Transition Metal Dichalcogenides for 2D Photovoltaic and Piezoelectric Applications. Journal of Physical Chemistry C, 2020, 124, 10385-10397.	1.5	94
3	Group-IV(A) Janus dichalcogenide monolayers and their interfaces straddle gigantic shear and in-plane piezoelectricity. Nanoscale, 2021, 13, 5460-5478.	2.8	89
4	Ultrahigh Out-of-Plane Piezoelectricity Meets Giant Rashba Effect in 2D Janus Monolayers and Bilayers of Group IV Transition-Metal Trichalcogenides. Journal of Physical Chemistry C, 2020, 124, 21250-21260.	1.5	87
5	Solar Energy Harvesting in Type II van der Waals Heterostructures of Semiconducting Group III Monochalcogenide Monolayers. Journal of Physical Chemistry C, 2019, 123, 12666-12675.	1.5	86
6	Interfacing Boron Monophosphide with Molybdenum Disulfide for an Ultrahigh Performance in Thermoelectrics, Two-Dimensional Excitonic Solar Cells, and Nanopiezotronics. ACS Applied Materials & Interfaces, 2020, 12, 3114-3126.	4.0	84
7	Superhigh out-of-plane piezoelectricity, low thermal conductivity and photocatalytic abilities in ultrathin 2D van der Waals heterostructures of boron monophosphide and gallium nitride. Nanoscale, 2019, 11, 21880-21890.	2.8	54
8	ZrS3/MS2 and ZrS3/MXY (M Mo, W; X, Y S, Se, Te; Xâ€¯â‰ â€¯Y) type-II van der Waals hetero-bilayers: Prospective candidates in 2D excitonic solar cells. Applied Surface Science, 2020, 499, 143894.	3.1	51
9	Hot Hole Cooling and Transfer Dynamics from Lead Halide Perovskite Nanocrystals Using Porphyrin Molecules. Journal of Physical Chemistry C, 2021, 125, 5859-5869.	1.5	37
10	Valley drift and valley current modulation in strained monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 100, .	1.1	27
11	Experimental and Theoretical Study into Interface Structure and Band Alignment of the Cu₂Zn_{1â€“x}Cd_xSnS₄ Heterointerface for Photovoltaic Applications. ACS Applied Energy Materials, 2020, 3, 5153-5162.	2.5	25
12	Superhigh flexibility and out-of-plane piezoelectricity together with strong anharmonic phonon scattering induced extremely low lattice thermal conductivity in hexagonal buckled CdX (X =) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.7	22
13	Ultra-low lattice thermal conductivity and giant phononâ€“electric field coupling in hafnium dichalcogenide monolayers. Journal of Physics Condensed Matter, 2020, 32, 315301.	0.7	22
14	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
15	Valley spin polarization in two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>h</mml:mi><mml:mtext>â^’</mml:mtext><mml:mi>M<mml:mi mathvariant="normal">N</mml:mi></mml:mrow><mml:mo>Â</mml:mo><mml:mrow><mml:mo>(</mml:mo><mml:mi>M</mml:mi> monolayers: Merger of valleytronics with spintronics. Physical Review B, 2022, 105, .	1.1	20
16	The role of exfoliating solvents for control synthesis of few-layer graphene-like nanosheets in energy storage applications: Theoretical and experimental investigation. Applied Surface Science, 2020, 509, 145375.	3.1	15
17	Concurrence of negative in-plane piezoelectricity and photocatalytic properties in 2D ScAgP₂S₆ monolayers. Journal of Physics Condensed Matter, 2021, 33, 375301.	0.7	2