

Raihan Ahammed

List of Publications by Year in descending order

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papers

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| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Valley spin polarization in two-dimensional M_2X_2 monolayers: Merger of valleytronics with spintronics. <i>Physical Review B</i> , 2022, 105, . | 1.1 | 20 |
| 2 | Hot Hole Cooling and Transfer Dynamics from Lead Halide Perovskite Nanocrystals Using Porphyrin Molecules. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5859-5869. | 1.5 | 37 |
| 3 | Concurrence of negative in-plane piezoelectricity and photocatalytic properties in 2D ScAgP_2S_6 monolayers. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 375301. | 0.7 | 2 |
| 4 | Group-IV(A) Janus dichalcogenide monolayers and their interfaces straddle gigantic shear and in-plane piezoelectricity. <i>Nanoscale</i> , 2021, 13, 5460-5478. | 2.8 | 89 |
| 5 | ZrS ₃ /MS ₂ and ZrS ₃ /MXY (M Mo, W; X, Y S, Se, Te; $X\tilde{a}\tilde{a}\tilde{\gamma}$) type-II van der Waals hetero-bilayers: Prospective candidates in 2D excitonic solar cells. <i>Applied Surface Science</i> , 2020, 499, 143894. | 3.1 | 51 |
| 6 | Interfacing Boron Monophosphide with Molybdenum Disulfide for an Ultrahigh Performance in Thermoelectrics, Two-Dimensional Excitonic Solar Cells, and Nanopiezotronics. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 3114-3126. | 4.0 | 84 |
| 7 | Ultrahigh Out-of-Plane Piezoelectricity Meets Giant Rashba Effect in 2D Janus Monolayers and Bilayers of Group IV Transition-Metal Trichalcogenides. <i>Journal of Physical Chemistry C</i> , 2020, 124, 21250-21260. | 1.5 | 87 |
| 8 | Experimental and Theoretical Study into Interface Structure and Band Alignment of the $\text{Cu}_2\text{Zn}_{1-x}\text{Cd}_x\text{Sn}_4$ Heterointerface for Photovoltaic Applications. <i>ACS Applied Energy Materials</i> , 2020, 3, 5153-5162. | 2.5 | 25 |
| 9 | Superhigh flexibility and out-of-plane piezoelectricity together with strong anharmonic phonon scattering induced extremely low lattice thermal conductivity in hexagonal buckled CdX ($X = \text{S, Se, Te}$) Tj ETQq1 1 0784314 $\mu\text{BT}/\text{Ov}$ | 0.7 | 14 |
| 10 | Ultra-low thermal conductivity and super-slow hot-carrier thermalization induced by a huge phononic gap in multifunctional nanoscale boron pnictides. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 124, 114222. | 1.3 | 21 |
| 11 | Ultra-low lattice thermal conductivity and giant phonon-electric field coupling in hafnium dichalcogenide monolayers. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 315301. | 0.7 | 22 |
| 12 | The role of exfoliating solvents for control synthesis of few-layer graphene-like nanosheets in energy storage applications: Theoretical and experimental investigation. <i>Applied Surface Science</i> , 2020, 509, 145375. | 3.1 | 15 |
| 13 | Nanoscale Interfaces of Janus Monolayers of Transition Metal Dichalcogenides for 2D Photovoltaic and Piezoelectric Applications. <i>Journal of Physical Chemistry C</i> , 2020, 124, 10385-10397. | 1.5 | 94 |
| 14 | Valley drift and valley current modulation in strained monolayer MoS_2 . <i>Physical Review B</i> , 2019, 100, . | 1.1 | 27 |
| 15 | Solar Energy Harvesting in Type II van der Waals Heterostructures of Semiconducting Group III Monochalcogenide Monolayers. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12666-12675. | 1.5 | 86 |
| 16 | Superhigh out-of-plane piezoelectricity, low thermal conductivity and photocatalytic abilities in ultrathin 2D van der Waals heterostructures of boron monophosphide and gallium nitride. <i>Nanoscale</i> , 2019, 11, 21880-21890. | 2.8 | 54 |
| 17 | Emergence of high piezoelectricity along with robust electron mobility in Janus structures in semiconducting Group IVB dichalcogenide monolayers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24885-24898. | 5.2 | 127 |