Taimur Ahmed

List of Publications by Year
in descending order

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56 papers	2,453 citations	257450 24 h-index	197818 49 g-index
57 all docs	57 docs citations	57 times ranked	3323 citing authors

#	Article	IF	Citations
1	Sulfurization Engineering of Oneâ€Step Lowâ€Temperature MoS₂ and WS₂ Thin Films for Memristor Device Applications. Advanced Electronic Materials, 2022, 8, 2100515.	5.1	14
2	Mixed Ionicâ€Electronic Charge Transport in Layered Blackâ€Phosphorus for Lowâ€Power Memory. Advanced Functional Materials, 2022, 32, 2107068.	14.9	16
3	Illuminating the biochemical interaction of antimicrobial few-layer black phosphorus with microbial cells using synchrotron macro-ATR-FTIR. Journal of Materials Chemistry B, 2022, 10, 7527-7539.	5.8	8
4	Nonvolatile Resistive Switching in Layered InSe via Electrochemical Cation Diffusion. Advanced Electronic Materials, 2022, 8, .	5.1	8
5	Fully Lightâ€Controlled Memory and Neuromorphic Computation in Layered Black Phosphorus. Advanced Materials, 2021, 33, e2004207.	21.0	147
6	Rapid and Selective Biomarker Detection with Conductometric Sensors. Small, 2021, 17, e2005582.	10.0	20
7	Broad-Spectrum Solvent-free Layered Black Phosphorus as a Rapid Action Antimicrobial. ACS Applied Materials & Interfaces, 2021, 13, 17340-17352.	8.0	24
8	A Visibleâ€Blind Photodetector and Artificial Optoelectronic Synapse Using Liquidâ€Metal Exfoliated ZnO Nanosheets. Advanced Optical Materials, 2021, 9, 2100449.	7.3	41
9	Influence of Temperature on Photodetection Properties of Honeycombâ€like GaN Nanostructures. Advanced Materials Interfaces, 2021, 8, 2100593.	3.7	12
10	Black Phosphorusâ€"Diketopyrrolopyrrole Polymer Semiconductor Hybrid for Enhanced Charge Transfer and Photodetection. Advanced Photonics Research, 2021, 2, 2100150.	3.6	3
11	Charge injection in vertically stacked multi-layer black phosphorus. Applied Materials Today, 2020, 18, 100481.	4.3	1
12	Ordered-vacancy-enabled indium sulphide printed in wafer-scale with enhanced electron mobility. Materials Horizons, 2020, 7, 827-834.	12.2	27
13	Large magnetotransport properties in mixed-dimensional van der Waals heterostructures of graphene foam. Carbon, 2020, 159, 648-655.	10.3	15
14	Twoâ€Step Synthesis of Largeâ€Area 2D Bi₂S₃ Nanosheets Featuring High Inâ€Plane Anisotropy. Advanced Materials Interfaces, 2020, 7, 2001131.	3.7	27
15	Broadband Photodetectors: Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors (Adv. Mater. 45/2020). Advanced Materials, 2020, 32, 2070338.	21.0	2
16	Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors. Advanced Materials, 2020, 32, e2004247.	21.0	66
17	Monocrystalline Antimonene Nanosheets via Physical Vapor Deposition. Advanced Materials Interfaces, 2020, 7, 2001678.	3.7	14
18	Differential Work-Function Enabled Bifunctional Switching in Strontium Titanate Flexible Resistive Memories. ACS Applied Materials & Interfaces, 2020, 12, 7326-7333.	8.0	9

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19	Multifunctional Optoelectronics via Harnessing Defects in Layered Black Phosphorus. Advanced Functional Materials, 2019, 29, 1901991.	14.9	97
20	Semiconductor-Free Field-Emission Nanoelectronics: Application in Air-Channel Transistors. , 2019, , .		1
21	Electron Emission Devices for Energyâ€Efficient Systems. Advanced Intelligent Systems, 2019, 1, 1900039.	6.1	16
22	Time and rate dependent synaptic learning in neuro-mimicking resistive memories. Scientific Reports, 2019, 9, 15404.	3.3	13
23	In Situ Nanostructural Analysis of Volatile Threshold Switching and Nonâ€Volatile Bipolar Resistive Switching in Mixedâ€Phased aâ€VO_x Asymmetric Crossbars. Advanced Electronic Materials, 2019, 5, 1900605.	5.1	17
24	Augmented band gap tunability in indium-doped zinc sulfide nanocrystals. Nanoscale, 2019, 11, 3154-3163.	5.6	15
25	Optically Stimulated Artificial Synapse Based on Layered Black Phosphorus. Small, 2019, 15, e1900966.	10.0	201
26	Large-area synthesis of 2D MoO _{3â^’ x} for enhanced optoelectronic applications. 2D Materials, 2019, 6, 035031.	4.4	48
27	Nano-Intrinsic True Random Number Generation: A Device to Data Study. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 2615-2626.	5.4	19
28	Generating strong room-temperature photoluminescence in black phosphorus using organic molecules. 2D Materials, 2019, 6, 015009.	4.4	15
29	Visible-Light-Triggered Reactive-Oxygen-Species-Mediated Antibacterial Activity of Peroxidase-Mimic CuO Nanorods. ACS Applied Nano Materials, 2018, 1, 1694-1704.	5.0	144
30	A Physical Unclonable Function With Redox-Based Nanoionic Resistive Memory. IEEE Transactions on Information Forensics and Security, 2018, 13, 437-448.	6.9	24
31	Black phosphorus: ambient degradation and strategies for protection. 2D Materials, 2018, 5, 032001.	4.4	119
32	Metalâ€“Air Transistors: Semiconductor-Free Field-Emission Air-Channel Nanoelectronics. Nano Letters, 2018, 18, 7478-7484.	9.1	76
33	Data related to the nanoscale structural and compositional evolution in resistance change memories. Data in Brief, 2018, 21, 18-24.	1.0	4
34	Broadband light active MTCNQ-based metalâ€“organic semiconducting hybrids for enhanced redox catalysis. Applied Materials Today, 2018, 13, 107-115.	4.3	16
35	Oxygen-deficient strontium titanate based stretchable resistive memories. Applied Materials Today, 2018, 13, 126-134.	4.3	17
36	Encapsulation-Free Stabilization of Few-Layer Black Phosphorus. ACS Applied Materials & Interfaces, 2018, 10, 24327-24331.	8.0	16

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37	Bi₂O₃ monolayers from elemental liquid bismuth. Nanoscale, 2018, 10, 15615-15623.	5.6	52
38	Inducing tunable switching behavior in a single memristor. Applied Materials Today, 2018, 11, 280-290.	4.3	21
39	Reversible resistive switching behaviour in CVD grown, large area MoO_x. Nanoscale, 2018, 10, 19711-19719.	5.6	46
40	Effects of plasma-treatment on the electrical and optoelectronic properties of layered black phosphorus. Applied Materials Today, 2018, 12, 244-249.	4.3	38
41	Ambient Protection of Fewâ€Layer Black Phosphorus via Sequestration of Reactive Oxygen Species. Advanced Materials, 2017, 29, 1700152.	21.0	141
42	Soft exfoliation of 2D SnO with size-dependent optical properties. 2D Materials, 2017, 4, 025110.	4.4	59
43	Defining the role of humidity in the ambient degradation of few-layer black phosphorus. 2D Materials, 2017, 4, 015025.	4.4	110
44	Two-dimensional MoO ₃ via a top-down chemical thinning route. 2D Materials, 2017, 4, 035008.	4.4	14
45	Wafer-Scale Synthesis of Semiconducting SnO Monolayers from Interfacial Oxide Layers of Metallic Liquid Tin. ACS Nano, 2017, 11, 10974-10983.	14.6	122
46	Transparent amorphous strontium titanate resistive memories with transient photo-response. Nanoscale, 2017, 9, 14690-14702.	5.6	18
47	Role of Water in the Dynamic Crystallization of CuTCNQ for Enhanced Redox Catalysis (TCNQ =) Tj ETQq1 1 0.784314 rgBT /Overlock	3.7	12
48	Metalâ€Loaded Dielectric Resonator Metasurfaces for Radiative Cooling. Advanced Optical Materials, 2017, 5, 1700460.	7.3	177
49	Degradation of black phosphorus is contingent on UVâ€“blue light exposure. Npj 2D Materials and Applications, 2017, 1, .	7.9	95
50	Galvanic Replacement of Semiconducting CuTCNQF ₄ with Ag ⁺ Ions to Enhance Electron Transfer Reaction. ChemistrySelect, 2017, 2, 9962-9969.	1.5	9
51	Insulatorâ€“metal transition in substrate-independent VO2 thin film for phase-change devices. Scientific Reports, 2017, 7, 17899.	3.3	63
52	Exfoliation of Quasi-Stratified Bi₂S₃ Crystals into Micron-Scale Ultrathin Corrugated Nanosheets. Chemistry of Materials, 2016, 28, 8942-8950.	6.7	31
53	Microstructure and dynamics of vacancy-induced nanofilamentary switching network in donor doped SrTiO_{3â”x}memristors. Nanotechnology, 2016, 27, 505210.	2.6	39
54	Donorâ€Induced Performance Tuning of Amorphous SrTiO₃ Memristive Nanodevices: Multistate Resistive Switching and Mechanical Tunability. Advanced Functional Materials, 2015, 25, 3172-3182.	14.9	68

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55	Microwave Response of BiFeO₃ Films in Parallel-Plate Capacitors. Integrated Ferroelectrics, 2012, 134, 111-117.	0.7	2
56	Growth temperature dependent dielectric properties of BiFeO3 thin films deposited on silica glass substrates. Thin Solid Films, 2012, 520, 4470-4474.	1.8	23