

Taimur Ahmed

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4355215/publications.pdf>

Version: 2024-02-01

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	Optically Stimulated Artificial Synapse Based on Layered Black Phosphorus. <i>Small</i> , 2019, 15, e1900966.	10.0	201
2	Metal-Loaded Dielectric Resonator Metasurfaces for Radiative Cooling. <i>Advanced Optical Materials</i> , 2017, 5, 1700460.	7.3	177
3	Fully Light-Controlled Memory and Neuromorphic Computation in Layered Black Phosphorus. <i>Advanced Materials</i> , 2021, 33, e2004207.	21.0	147
4	Visible-Light-Triggered Reactive-Oxygen-Species-Mediated Antibacterial Activity of Peroxidase-Mimic CuO Nanorods. <i>ACS Applied Nano Materials</i> , 2018, 1, 1694-1704.	5.0	144
5	Ambient Protection of Few-Layer Black Phosphorus via Sequestration of Reactive Oxygen Species. <i>Advanced Materials</i> , 2017, 29, 1700152.	21.0	141
6	Wafer-Scale Synthesis of Semiconducting SnO Monolayers from Interfacial Oxide Layers of Metallic Liquid Tin. <i>ACS Nano</i> , 2017, 11, 10974-10983.	14.6	122
7	Black phosphorus: ambient degradation and strategies for protection. <i>2D Materials</i> , 2018, 5, 032001.	4.4	119
8	Defining the role of humidity in the ambient degradation of few-layer black phosphorus. <i>2D Materials</i> , 2017, 4, 015025.	4.4	110
9	Multifunctional Optoelectronics via Harnessing Defects in Layered Black Phosphorus. <i>Advanced Functional Materials</i> , 2019, 29, 1901991.	14.9	97
10	Degradation of black phosphorus is contingent on UV-blue light exposure. <i>Npj 2D Materials and Applications</i> , 2017, 1, .	7.9	95
11	Metal-Air Transistors: Semiconductor-Free Field-Emission Air-Channel Nanoelectronics. <i>Nano Letters</i> , 2018, 18, 7478-7484.	9.1	76
12	Donor-Induced Performance Tuning of Amorphous SrTiO ₃ Memristive Nanodevices: Multistate Resistive Switching and Mechanical Tunability. <i>Advanced Functional Materials</i> , 2015, 25, 3172-3182.	14.9	68
13	Liquid-Metal Synthesized Ultrathin SnS Layers for High-Performance Broadband Photodetectors. <i>Advanced Materials</i> , 2020, 32, e2004247.	21.0	66
14	Insulator-metal transition in substrate-independent VO ₂ thin film for phase-change devices. <i>Scientific Reports</i> , 2017, 7, 17899.	3.3	63
15	Soft exfoliation of 2D SnO with size-dependent optical properties. <i>2D Materials</i> , 2017, 4, 025110.	4.4	59
16	Bi ₂ O ₃ monolayers from elemental liquid bismuth. <i>Nanoscale</i> , 2018, 10, 15615-15623.	5.6	52
17	Large-area synthesis of 2D MoO ₃ for enhanced optoelectronic applications. <i>2D Materials</i> , 2019, 6, 035031.	4.4	48
18	Reversible resistive switching behaviour in CVD grown, large area MoO _x . <i>Nanoscale</i> , 2018, 10, 19711-19719.	5.6	46

#	ARTICLE	IF	CITATIONS
19	A Visible-Blind Photodetector and Artificial Optoelectronic Synapse Using Liquid-Metal Exfoliated ZnO Nanosheets. <i>Advanced Optical Materials</i> , 2021, 9, 2100449.	7.3	41
20	Microstructure and dynamics of vacancy-induced nanofilamentary switching network in donor doped SrTiO ₃ memristors. <i>Nanotechnology</i> , 2016, 27, 505210.	2.6	39
21	Effects of plasma-treatment on the electrical and optoelectronic properties of layered black phosphorus. <i>Applied Materials Today</i> , 2018, 12, 244-249.	4.3	38
22	Exfoliation of Quasi-Stratified Bi ₂ S ₃ Crystals into Micron-Scale Ultrathin Corrugated Nanosheets. <i>Chemistry of Materials</i> , 2016, 28, 8942-8950.	6.7	31
23	Ordered-vacancy-enabled indium sulphide printed in wafer-scale with enhanced electron mobility. <i>Materials Horizons</i> , 2020, 7, 827-834.	12.2	27
24	Two-Step Synthesis of Large-Area 2D Bi ₂ S ₃ Nanosheets Featuring High In-Plane Anisotropy. <i>Advanced Materials Interfaces</i> , 2020, 7, 2001131.	3.7	27
25	A Physical Unclonable Function With Redox-Based Nanoionic Resistive Memory. <i>IEEE Transactions on Information Forensics and Security</i> , 2018, 13, 437-448.	6.9	24
26	Broad-Spectrum Solvent-free Layered Black Phosphorus as a Rapid Action Antimicrobial. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17340-17352.	8.0	24
27	Growth temperature dependent dielectric properties of BiFeO ₃ thin films deposited on silica glass substrates. <i>Thin Solid Films</i> , 2012, 520, 4470-4474.	1.8	23
28	Inducing tunable switching behavior in a single memristor. <i>Applied Materials Today</i> , 2018, 11, 280-290.	4.3	21
29	Rapid and Selective Biomarker Detection with Conductometric Sensors. <i>Small</i> , 2021, 17, e2005582.	10.0	20
30	Nano-Intrinsic True Random Number Generation: A Device to Data Study. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019, 66, 2615-2626.	5.4	19
31	Transparent amorphous strontium titanate resistive memories with transient photo-response. <i>Nanoscale</i> , 2017, 9, 14690-14702.	5.6	18
32	Oxygen-deficient strontium titanate based stretchable resistive memories. <i>Applied Materials Today</i> , 2018, 13, 126-134.	4.3	17
33	In Situ Nanostructural Analysis of Volatile Threshold Switching and Non-Volatile Bipolar Resistive Switching in Mixed-Phased VO _x Asymmetric Crossbars. <i>Advanced Electronic Materials</i> , 2019, 5, 1900605.	5.1	17
34	Broadband light active MTCNQ-based metal-organic semiconducting hybrids for enhanced redox catalysis. <i>Applied Materials Today</i> , 2018, 13, 107-115.	4.3	16
35	Encapsulation-Free Stabilization of Few-Layer Black Phosphorus. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 24327-24331.	8.0	16
36	Electron Emission Devices for Energy-Efficient Systems. <i>Advanced Intelligent Systems</i> , 2019, 1, 1900039.	6.1	16

#	ARTICLE	IF	CITATIONS
37	Mixed Ionic–Electronic Charge Transport in Layered Black Phosphorus for Low-Power Memory. <i>Advanced Functional Materials</i> , 2022, 32, 2107068.	14.9	16
38	Augmented band gap tunability in indium-doped zinc sulfide nanocrystals. <i>Nanoscale</i> , 2019, 11, 3154-3163.	5.6	15
39	Generating strong room-temperature photoluminescence in black phosphorus using organic molecules. <i>2D Materials</i> , 2019, 6, 015009.	4.4	15
40	Large magnetotransport properties in mixed-dimensional van der Waals heterostructures of graphene foam. <i>Carbon</i> , 2020, 159, 648-655.	10.3	15
41	Two-dimensional MoO ₃ via a top-down chemical thinning route. <i>2D Materials</i> , 2017, 4, 035008.	4.4	14
42	Monocrystalline Antimonene Nanosheets via Physical Vapor Deposition. <i>Advanced Materials Interfaces</i> , 2020, 7, 2001678.	3.7	14
43	Sulfurization Engineering of One-Step Low-Temperature MoS ₂ and WS ₂ Thin Films for Memristor Device Applications. <i>Advanced Electronic Materials</i> , 2022, 8, 2100515.	5.1	14
44	Time and rate dependent synaptic learning in neuro-mimicking resistive memories. <i>Scientific Reports</i> , 2019, 9, 15404.	3.3	13
45	Role of Water in the Dynamic Crystallization of CuTCNQ for Enhanced Redox Catalysis (TCNQ =) Tj ETQq1 1 0.784314 rgBT /Overlock	3.7	12
46	Influence of Temperature on Photodetection Properties of Honeycomb-like GaN Nanostructures. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100593.	3.7	12
47	Galvanic Replacement of Semiconducting CuTCNQF ₄ with Ag ⁺ Ions to Enhance Electron Transfer Reaction. <i>ChemistrySelect</i> , 2017, 2, 9962-9969.	1.5	9
48	Differential Work-Function Enabled Bifunctional Switching in Strontium Titanate Flexible Resistive Memories. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7326-7333.	8.0	9
49	Illuminating the biochemical interaction of antimicrobial few-layer black phosphorus with microbial cells using synchrotron macro-ATR-FTIR. <i>Journal of Materials Chemistry B</i> , 2022, 10, 7527-7539.	5.8	8
50	Nonvolatile Resistive Switching in Layered InSe via Electrochemical Cation Diffusion. <i>Advanced Electronic Materials</i> , 2022, 8, .	5.1	8
51	Data related to the nanoscale structural and compositional evolution in resistance change memories. <i>Data in Brief</i> , 2018, 21, 18-24.	1.0	4
52	Black Phosphorus–Diketopyrrolopyrrole Polymer Semiconductor Hybrid for Enhanced Charge Transfer and Photodetection. <i>Advanced Photonics Research</i> , 2021, 2, 2100150.	3.6	3
53	Microwave Response of BiFeO ₃ Films in Parallel-Plate Capacitors. <i>Integrated Ferroelectrics</i> , 2012, 134, 111-117.	0.7	2
54	Broadband Photodetectors: Liquid-Metal Synthesized Ultrathin SnS Layers for High-Performance Broadband Photodetectors (<i>Adv. Mater.</i> 45/2020). <i>Advanced Materials</i> , 2020, 32, 2070338.	21.0	2

#	ARTICLE	IF	CITATIONS
55	Semiconductor-Free Field-Emission Nanoelectronics: Application in Air-Channel Transistors. , 2019, , .		1
56	Charge injection in vertically stacked multi-layer black phosphorus. Applied Materials Today, 2020, 18, 100481.	4.3	1