Muhammad Farooq Khan

List of Publications by Year
in descending order

74	2,386	26	45
papers	citations	h-index	g-index
		218677	233421

74	74	74	3533
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Morphologically Divergent Development of SnS Photocatalysts from Under-Utilized Ionic Precursors of SILAR Process. Journal of Cluster Science, 2022, 33, 2443-2454.	3.3	3
2	Development of directly grownâ€grapheneâ€“silicon Schottky barrier solar cell using coâ€doping technique. International Journal of Energy Research, 2022, 46, 11510-11522.	4.5	11
3	Power efficient transistors with low subthreshold swing using abrupt switching devices. Nano Energy, 2022, 95, 107060.	16.0	16
4	Flexible Diodes with Low Breakdown Voltage for Steep Slope Transistors and One Diodeâ€One Resistor Applications. Advanced Electronic Materials, 2022, 8, .	5.1	8
5	Reconfigurable carrier type and photodetection of MoTe₂ of various thicknesses by deep ultraviolet light illumination. Nanoscale Advances, 2022, 4, 2744-2751.	4.6	3
6	Controlling the Wettability of ZnO Thin Films by Spray Pyrolysis for Photocatalytic Applications. Materials, 2022, 15, 3364.	2.9	16
7	Analogâ€“digital hybrid computing with SnS2 memtransistor for low-powered sensor fusion. Nature Communications, 2022, 13, 2804.	12.8	14
8	Tunable resistive switching of vertical ReSe2/graphene hetero-structure enabled by Schottky barrier height and DUV light. Journal of Alloys and Compounds, 2021, 855, 157310.	5.5	37
9	Stable and Multilevel Data Storage Resistive Switching of Organic Bulk Heterojunction. Nanomaterials, 2021, 11, 359.	4.1	28
10	Current Rectification, Resistive Switching, and Stable NDR Effect in BaTiO₃/CeO₂ Heterostructure Devices. Advanced Electronic Materials, 2021, 7, 2001237.	5.1	19
11	Optimization of ZnO:PEIE as an Electron Transport Layer for Flexible Organic Solar Cells. Energy & Fuels, 2021, 35, 12416-12424.	5.1	27
12	Graphene foam â€“ polymer based electronic skin for flexible tactile sensor. Sensors and Actuators A: Physical, 2021, 327, 112697.	4.1	26
13	Polymer-based non-volatile resistive random-access memory device fabrication with multi-level switching and negative differential resistance state. Organic Electronics, 2021, 96, 106228.	2.6	14
14	Tunable Martensitic Transformation and Magnetic Properties of Sm-Doped NiMnSn Ferromagnetic Shape Memory Alloys. Crystals, 2021, 11, 1115.	2.2	5
15	Discrete memristive levels and logic gate applications of Nb2O5 devices. Journal of Alloys and Compounds, 2021, 879, 160385.	5.5	22
16	Compositional dynamics of the electron transport layer (ZnO:PEIE) in P3HT:PC61BM organic solar cells. Materials Science in Semiconductor Processing, 2021, 136, 106118.	4.0	13
17	Effect of oxygen stoichiometry on the threshold switching of RF-sputtered NbOx (xÂ=Â2.0â€“2.5) films. Materials Research Bulletin, 2021, 144, 111492.	5.2	18
18	A novel MnOâ€“CrN nanocomposite based non-enzymatic hydrogen peroxide sensor. RSC Advances, 2021, 11, 19316-19322.	3.6	18

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19	Gate-Voltage-Modulated Spin Precession in Graphene/WS2 Field-Effect Transistors. Electronics (Switzerland), 2021, 10, 2879.	3.1	5
20	High mobility ReSe₂ field effect transistors: Schottky-barrier-height-dependent photoresponsivity and broadband light detection with Co decoration. 2D Materials, 2020, 7, 015010.	4.4	36
21	High performance complementary WS₂ devices with hybrid Gr/Ni contacts. Nanoscale, 2020, 12, 21280-21290.	5.6	27
22	Neuro-Transistor Based on UV-Treated Charge Trapping in MoTe2 for Artificial Synaptic Features. Nanomaterials, 2020, 10, 2326.	4.1	26
23	Multi-heterostructured spin-valve junction of vertical FLG/MoSe2/FLG. APL Materials, 2020, 8, .	5.1	11
24	Nitrogen-doped carbon integrated nickelâ€“cobalt metal phosphide marigold flowers as a high capacity electrode for hybrid supercapacitors. CrystEngComm, 2020, 22, 6360-6370.	2.6	23
25	Chemical Nature of Electrode and the Switching Response of RF-Sputtered NbOx Films. Nanomaterials, 2020, 10, 2164.	4.1	28
26	Rapid conjunction of 1D carbon nanotubes and 2D graphitic carbon nitride with ZnO for improved optoelectronic properties. Applied Nanoscience (Switzerland), 2020, 10, 3805-3817.	3.1	8
27	Synthesis, properties and novel electrocatalytic applications of the 2D-borophene Xenes. Progress in Solid State Chemistry, 2020, 59, 100283.	7.2	65
28	Enhanced electrical and broad spectral (UV-Vis-NIR) photodetection in a Gr/ReSe₂/Gr heterojunction. Dalton Transactions, 2020, 49, 10017-10027.	3.3	36
29	Solar cell based on vertical graphene nano hills directly grown on silicon. Carbon, 2020, 164, 235-243.	10.3	23
30	An effectual enhancement to the electrical conductivity of graphene FET by silver nanoparticles. Diamond and Related Materials, 2020, 106, 107833.	3.9	10
31	Unusual magnetotransport properties in graphene fibers. Physical Chemistry Chemical Physics, 2020, 22, 25712-25719.	2.8	3
32	Modulation of Magnetoresistance Polarity in BLG/SL-MoSe2 Heterostacks. Nanoscale Research Letters, 2020, 15, 136.	5.7	4
33	Thickness-dependent resistive switching in black phosphorus CBRAM. Journal of Materials Chemistry C, 2019, 7, 725-732.	5.5	51
34	Thickness-dependent efficiency of directly grown graphene based solar cells. Carbon, 2019, 148, 187-195.	10.3	49
35	MoTe₂ van der Waals homojunction pâ€“n diode with low resistance metal contacts. Nanoscale, 2019, 11, 9518-9525.	5.6	54
36	Black Phosphorus-IGZO van der Waals Diode with Low-Resistivity Metal Contacts. ACS Applied Materials & Interfaces, 2019, 11, 10959-10966.	8.0	31

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37	Tuning of ionic mobility to improve the resistive switching behavior of Zn-doped CeO2. Scientific Reports, 2019, 9, 19387.	3.3	28
38	Surface spin accumulation due to the inverse spin Hall effect in WS ₂ crystals. 2D Materials, 2019, 6, 011007.	4.4	15
39	Gate Modulation of the Spin-orbit Interaction in Bilayer Graphene Encapsulated by WS2 films. Scientific Reports, 2018, 8, 3412.	3.3	20
40	Gateâ€Dependent Tunnelling Current Modulation of Graphene/hBN Vertical Heterostructures. Advanced Engineering Materials, 2018, 20, 1800159.	3.5	5
41	Temperature-Dependent and Gate-Tunable Rectification in a Black Phosphorus/WS₂ van der Waals Heterojunction Diode. ACS Applied Materials & Interfaces, 2018, 10, 13150-13157.	8.0	61
42	Development and prospects of surface passivation schemes for high-efficiency c-Si solar cells. Solar Energy, 2018, 166, 90-97.	6.1	24
43	Van der Waals heterojunction diode composed of WS₂flake placed on p-type Si substrate. Nanotechnology, 2018, 29, 045201.	2.6	21
44	Ultimate limit in size and performance of WSe2 vertical diodes. Nature Communications, 2018, 9, 5371.	12.8	63
45	Comparison of Electrical and Photoelectrical Properties of ReS₂ Field-Effect Transistors on Different Dielectric Substrates. ACS Applied Materials & Interfaces, 2018, 10, 32501-32509.	8.0	44
46	Dynamics of liquid crystal on hexagonal lattice. 2D Materials, 2018, 5, 045021.	4.4	5
47	Visualizing Degradation of Black Phosphorus Using Liquid Crystals. Scientific Reports, 2018, 8, 12966.	3.3	10
48	Gate Tunable Transport in Graphene/MoS2/(Cr/Au) Vertical Field-Effect Transistors. Nanomaterials, 2018, 8, 14.	4.1	22
49	Layer dependent magnetoresistance of vertical MoS₂ magnetic tunnel junctions. Nanoscale, 2018, 10, 16703-16710.	5.6	27
50	A facile route to a high-quality graphene/MoS₂ vertical field-effect transistor with gate-modulated photocurrent response. Journal of Materials Chemistry C, 2017, 5, 2337-2343.	5.5	19
51	Enhanced photoresponse of ZnO quantum dot-decorated MoS₂ thin films. RSC Advances, 2017, 7, 16890-16900.	3.6	59
52	Effect of grain boundaries on electrical properties of polycrystalline graphene. Carbon, 2017, 112, 142-148.	10.3	22
53	Room temperature spin valve effect in NiFe/WS2/Co junctions. Scientific Reports, 2016, 6, 21038.	3.3	64
54	Interaction driven quantum Hall effect in artificially stacked graphene bilayers. Scientific Reports, 2016, 6, 24815.	3.3	2

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55	Investigation of dielectric and optical properties of structurally modified bismuth ferrite nanomaterials. Ceramics International, 2016, 42, 11447-11452.	4.8	15
56	n-MoS₂/p-Si Solar Cells with Al₂O₃ Passivation for Enhanced Photogeneration. ACS Applied Materials & Interfaces, 2016, 8, 29383-29390.	8.0	77
57	Layer-modulated, wafer scale and continuous ultra-thin WS₂ films grown by RF sputtering via post-deposition annealing. Journal of Materials Chemistry C, 2016, 4, 7846-7852.	5.5	26
58	Large-area, continuous and high electrical performances of bilayer to few layers MoS2 fabricated by RF sputtering via post-deposition annealing method. Scientific Reports, 2016, 6, 30791.	3.3	104
59	Two- and four-probe field-effect and Hall mobilities in transition metal dichalcogenide field-effect transistors. RSC Advances, 2016, 6, 60787-60793.	3.6	24
60	Electrical and photo-electrical properties of MoS₂ nanosheets with and without an Al₂O₃ capping layer under various environmental conditions. Science and Technology of Advanced Materials, 2016, 17, 166-176.	6.1	36
61	A progressive route for tailoring electrical transport in MoS2. Nano Research, 2016, 9, 380-391.	10.4	14
62	Tailoring the electrical and photo-electrical properties of a WS₂ field effect transistor by selective n-type chemical doping. RSC Advances, 2016, 6, 24675-24682.	3.6	40
63	Synthesis and characterization of large-area and continuous MoS₂atomic layers by RF magnetron sputtering. Nanoscale, 2016, 8, 4340-4347.	5.6	74
64	Stable and reversible doping of graphene by using KNO3 solution and photo-desorption current response. RSC Advances, 2015, 5, 50040-50046.	3.6	18
65	High-mobility and air-stable single-layer WS2 field-effect transistors sandwiched between chemical vapor deposition-grown hexagonal BN films. Scientific Reports, 2015, 5, 10699.	3.3	258
66	Ultraviolet-light-driven doping modulation in chemical vapor deposition grown graphene. Physical Chemistry Chemical Physics, 2015, 17, 20551-20556.	2.8	36
67	Highly Stable and Tunable Chemical Doping of Multilayer WS₂ Field Effect Transistor: Reduction in Contact Resistance. ACS Applied Materials & Interfaces, 2015, 7, 23589-23596.	8.0	120
68	Putting DFT to the trial: First principles pressure dependent analysis on optical properties of cubic perovskite SrZrO3. Computational Condensed Matter, 2015, 4, 32-39.	2.1	32
69	Deep-ultraviolet-light-driven reversible doping of WS₂ field-effect transistors. Nanoscale, 2015, 7, 747-757.	5.6	62
70	Modification of the structural and electrical properties of graphene layers by Pt adsorbates. Science and Technology of Advanced Materials, 2014, 15, 055002.	6.1	20
71	Photocurrent Response of MoS₂ Field-Effect Transistor by Deep Ultraviolet Light in Atmospheric and N₂ Gas Environments. ACS Applied Materials & Interfaces, 2014, 6, 21645-21651.	8.0	44
72	Tuning the electrical properties of exfoliated graphene layers using deep ultraviolet irradiation. Journal of Materials Chemistry C, 2014, 2, 5404-5410.	5.5	40

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73	Improving the electrical properties of graphene layers by chemical doping. Science and Technology of Advanced Materials, 2014, 15, 055004.	6.1	46
74	Optimization of <scp> SiO ₂ â€“TiO ₂ </scp> nanocomposite in holeâ€transporting layer (PEDOT:PSS) for enhanced performance of planar Siâ€based hybrid solar cells. International Journal of Energy Research, 0, , .	4.5	1