Muhammad Zahir Iqbal

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#	Paper	IF	Citations
129	High-mobility and air-stable single-layer WS2 field-effect transistors sandwiched between chemical vapor deposition-grown hexagonal BN films. <i>Scientific Reports</i> , 2015 , 5, 10699	4.9	187
128	Raman fingerprint of doping due to metal adsorbates on graphene. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 335301	1.8	96
127	Spin valve effect of NiFe/graphene/NiFe junctions. <i>Nano Research</i> , 2013 , 6, 373-380	10	65
126	Large-area, continuous and high electrical performances of bilayer to few layers MoS2 fabricated by RF sputtering via post-deposition annealing method. <i>Scientific Reports</i> , 2016 , 6, 30791	4.9	62
125	Molecular n-doping of chemical vapor deposition grown graphene. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15168		53
124	Room temperature spin valve effect in NiFe/WS/ICo junctions. <i>Scientific Reports</i> , 2016 , 6, 21038	4.9	52
123	Progress in dye sensitized solar cell by incorporating natural photosensitizers. <i>Solar Energy</i> , 2019 , 181, 490-509	6.8	50
122	Deep-ultraviolet-light-driven reversible doping of WS2 field-effect transistors. <i>Nanoscale</i> , 2015 , 7, 747-	5 7 .7	49
121	Co-MOF/polyaniline-based electrode material for high performance supercapattery devices. <i>Electrochimica Acta</i> , 2020 , 346, 136039	6.7	44
120	Progress in the performance of dye sensitized solar cells by incorporating cost effective counter electrodes. <i>Solar Energy</i> , 2018 , 160, 130-152	6.8	43
119	Role of aqueous electrolytes on the performance of electrochemical energy storage device. <i>Journal of Electroanalytical Chemistry</i> , 2020 , 858, 113793	4.1	41
118	Improving the electrical properties of graphene layers by chemical doping. <i>Science and Technology of Advanced Materials</i> , 2014 , 15, 055004	7.1	40
117	Ultrasonication-assisted synthesis of novel strontium based mixed phase structures for supercapattery devices. <i>Ultrasonics Sonochemistry</i> , 2019 , 59, 104736	8.9	37
116	Photocurrent response of MoSIField-effect transistor by deep ultraviolet light in atmospheric and NIgas environments. <i>ACS Applied Materials & District Research</i> , 19, 21645-51	9.5	37
115	Formation of pfl junction with stable p-doping in graphene field effect transistors using deep UV irradiation. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 3078	7.1	37
114	Prospects and challenges of graphene based fuel cells. <i>Journal of Energy Chemistry</i> , 2019 , 39, 217-234	12	35
113	Electrode designed with a nanocomposite film of CuO Honeycombs/Ag nanoparticles electrogenerated on a magnetic platform as an amperometric glucose sensor. <i>Analytica Chimica Acta</i> , 2020 , 1111, 49-59	6.6	34

(2015-2016)

112	Tailoring the electrical and photo-electrical properties of a WS2 field effect transistor by selective n-type chemical doping. <i>RSC Advances</i> , 2016 , 6, 24675-24682	3.7	34	
111	The structural and electrical evolution of chemical vapor deposition grown graphene by electron beam irradiation induced disorder. <i>Carbon</i> , 2013 , 59, 366-371	10.4	34	
110	High-Performance p-BP/n-PdSe Near-Infrared Photodiodes with a Fast and Gate-Tunable Photoresponse. <i>ACS Applied Materials & Acs Applied & Ac</i>	9.5	32	
109	Tuning the electrical properties of exfoliated graphene layers using deep ultraviolet irradiation. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 5404-5410	7.1	32	
108	Flexible, transparent electrodes using carbon nanotubes. <i>Nanoscale Research Letters</i> , 2012 , 7, 571	5	32	
107	Capacitive and diffusion-controlled mechanism of strontium oxide based symmetric and asymmetric devices. <i>Journal of Energy Storage</i> , 2020 , 27, 101056	7.8	32	
106	Recent progress in efficiency of hydrogen evolution process based photoelectrochemical cell. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21502-21523	6.7	31	
105	Interlayer dependent polarity of magnetoresistance in graphene spin valves. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 298-302	7.1	30	
104	Recent progress in graphene incorporated solar cell devices. <i>Solar Energy</i> , 2018 , 169, 634-647	6.8	29	
103	Room temperature spin valve effect in the NiFe/GrfiBN/Co magnetic tunnel junction. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 8711-8715	7.1	27	
102	Ultraviolet-light-driven doping modulation in chemical vapor deposition grown graphene. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 20551-6	3.6	26	
101	Multifunctional and high-performance GeSe/PdSe2 heterostructure device with a fast photoresponse. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 4743-4753	7.1	25	
100	Strontium phosphide-polyaniline composites for high performance supercapattery devices. <i>Ceramics International</i> , 2020 , 46, 10203-10214	5.1	25	
99	Tunneling-based rectification and photoresponsivity in black phosphorus/hexagonal boron nitride/rhenium diselenide van der Waals heterojunction diode. <i>Nanoscale</i> , 2020 , 12, 3455-3468	7.7	25	
98	Recent developments in graphene based novel structures for efficient and durable fuel cells. <i>Materials Research Bulletin</i> , 2020 , 122, 110674	5.1	24	
97	Optimization of cobalt-manganese binary sulfide for high performance supercapattery devices. <i>Electrochimica Acta</i> , 2021 , 368, 137529	6.7	22	
96	Highly Sensitive, Ultrafast, and Broadband Photo-Detecting Field-Effect Transistor with Transition-Metal Dichalcogenide van der Waals Heterostructures of MoTe and PdSe. <i>Advanced Science</i> , 2021 , 8, e2003713	13.6	21	
95	Controlled synthesis and optical properties of polycrystalline molybdenum disulfide atomic layers grown by chemical vapor deposition. <i>Journal of Alloys and Compounds</i> , 2015 , 653, 369-378	5.7	20	

94	WS/GeSe/WS Bipolar Transistor-Based Chemical Sensor with Fast Response and Recovery Times. <i>ACS Applied Materials & ACS ACS ACS ACS ACS ACS ACS ACS ACS ACS</i>	9.5	20
93	Study of structural, optical, electrical and magnetic properties of Cu2+doped Zn0.4Co0.6-xCe0.1Fe1.9O4 spinel ferrites. <i>Physica B: Condensed Matter</i> , 2020 , 584, 412078	2.8	19
92	Binary composites of strontium oxide/polyaniline for high performance supercapattery devices. <i>Solid State Ionics</i> , 2020 , 347, 115276	3.3	19
91	Recent advancements in 2D-materials interface based magnetic junctions for spintronics. <i>Journal of Magnetism and Magnetic Materials</i> , 2018 , 457, 110-125	2.8	19
90	Layer-modulated, wafer scale and continuous ultra-thin WS2 films grown by RF sputtering via post-deposition annealing. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 7846-7852	7.1	19
89	Edge oxidation effect of chemical-vapor-deposition-grown graphene nanoconstriction. <i>ACS Applied Materials & Amp; Interfaces</i> , 2014 , 6, 4207-13	9.5	19
88	Enhanced magnetoresistance in graphene spin valve. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 429, 330-333	2.8	18
87	Carrier polarity modulation of molybdenum ditelluride (MoTe) for phototransistor and switching photodiode applications. <i>Nanoscale</i> , 2020 , 12, 15687-15696	7.7	18
86	Superior characteristics of graphene field effect transistor enclosed by chemical-vapor-deposition-grown hexagonal boron nitride. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 7776-7784	7.1	17
85	Modification of the structural and electrical properties of graphene layers by Pt adsorbates. <i>Science and Technology of Advanced Materials</i> , 2014 , 15, 055002	7.1	17
84	Recent advancement in the performance of solar cells by incorporating transition metal dichalcogenides as counter electrode and photoabsorber. <i>International Journal of Energy Research</i> , 2019 , 43, 3058-3079	4.5	16
83	Realization of tunable artificial synapse and memory based on amorphous oxide semiconductor transistor. <i>Scientific Reports</i> , 2017 , 7, 10997	4.9	15
82	Stable and reversible doping of graphene by using KNO3 solution and photo-desorption current response. <i>RSC Advances</i> , 2015 , 5, 50040-50046	3.7	15
81	Nickel-manganese phosphate: An efficient battery-grade electrode for supercapattery devices. <i>Ceramics International</i> , 2021 , 47, 11220-11230	5.1	15
80	Graphene spin valve: An angle sensor. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 432, 135-139	2.8	14
79	Capacitive and diffusive contribution in strontium phosphide-polyaniline based supercapattery. Journal of Energy Storage, 2020 , 29, 101324	7.8	14
78	Development and prospects of surface passivation schemes for high-efficiency c-Si solar cells. <i>Solar Energy</i> , 2018 , 166, 90-97	6.8	14
77	Role of graphene and transition metal dichalcogenides as hole transport layer and counter electrode in solar cells. <i>International Journal of Energy Research</i> , 2020 , 44, 1464-1487	4.5	14

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76	Integration of supercapacitors and batteries towards high-performance hybrid energy storage devices. <i>International Journal of Energy Research</i> , 2021 , 45, 1449-1479	4.5	14
75	Single nanoflake-based PtSe2 pfi junction (in-plane) formed by optical excitation of point defects in BN for ultrafast switching photodiodes. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 199-207	7.1	14
74	A facile route to a high-quality graphene/MoS2 vertical field-effect transistor with gate-modulated photocurrent response. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 2337-2343	7.1	13
73	Interlayer reliant magnetotransport in graphene spin valve. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 441, 39-42	2.8	13
72	Fowler-Nordheim tunneling characteristics of graphene/hBN/metal heterojunctions. <i>Journal of Applied Physics</i> , 2019 , 125, 084902	2.5	13
71	Ultraviolet-light-driven enhanced hysteresis effect in graphene-tungsten disulfide heterostructures. <i>Carbon</i> , 2017 , 123, 168-173	10.4	13
70	Optimizing electrochemical performance of sonochemically and hydrothermally synthesized cobalt phosphate for supercapattery devices. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15807-15819	6.7	13
69	Ultraviolet-light-driven enhanced photoresponse of chemical-vapor-deposition grown graphene-WS2 heterojunction based FETs. <i>Sensors and Actuators B: Chemical</i> , 2018 , 257, 263-269	8.5	12
68	Ultraviolet-light-driven photoresponse of chemical vapor deposition grown molybdenum disulfide/graphene heterostructured FET. <i>Applied Surface Science</i> , 2018 , 459, 853-859	6.7	12
67	Cholesterol immobilization on chemical vapor deposition grown graphene nanosheets for biosensors and bioFETs with enhanced electrical performance. <i>Sensors and Actuators B: Chemical</i> , 2017 , 253, 559-565	8.5	12
66	Interlayer quality dependent graphene spin valve. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 422, 322-327	2.8	12
65	Cobalt-manganese-zinc ternary phosphate for high performance supercapattery devices. <i>Dalton Transactions</i> , 2020 , 49, 16715-16727	4.3	12
64	Switching photodiodes based on (2D/3D) PdSe2/Si heterojunctions with a broadband spectral response. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 3998-4007	7.1	12
63	Facile synthesis of strontium oxide/polyaniline/graphene composite for the high-performance supercapattery devices. <i>Journal of Electroanalytical Chemistry</i> , 2020 , 879, 114812	4.1	11
62	Van der Waals Multi-Heterostructures (PN, PIN, and NPN) for Dynamic Rectification in 2D Materials. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2001479	4.6	11
61	Electrodeposited CuMnS and CoMnS electrodes for high-performance asymmetric supercapacitor devices. <i>Ceramics International</i> , 2020 , 46, 21343-21350	5.1	11
60	A reversible and stable doping technique to invert the carrier polarity of MoTe. <i>Nanotechnology</i> , 2021 , 32,	3.4	11
59	Hydrothermally synthesized zinc phosphate-rGO composites for supercapattery devices. <i>Journal of Electroanalytical Chemistry</i> , 2020 , 871, 114299	4.1	10

58	Enhanced performance of graphene by using gold film for transfer and masking process. <i>Current Applied Physics</i> , 2014 , 14, 1045-1050	2.6	10
57	Binary composites of nickel-manganese phosphates for supercapattery devices. <i>Journal of Energy Storage</i> , 2021 , 33, 102020	7.8	10
56	Supercapattery: Merging of battery-supercapacitor electrodes for hybrid energy storage devices. Journal of Energy Storage, 2022 , 46, 103823	7.8	9
55	Green synthesis of nickel-manganese/polyaniline-based ternary composites for high-performance supercapattery devices. <i>International Journal of Energy Research</i> , 2021 , 45, 11109-11122	4.5	9
54	Spin Valve Effect of 2D-Materials Based Magnetic Junctions. <i>Advanced Engineering Materials</i> , 2018 , 20, 1700692	3.5	9
53	Electron spin dynamics in vertical magnetic junctions incorporating two-dimensional layered materials. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 11174-11184	7.1	8
52	Scrutinizing the charge storage mechanism in SrO based composites for asymmetric supercapacitors by diffusion-controlled process. <i>Applied Nanoscience (Switzerland)</i> , 2020 , 10, 3999-4011	3.3	8
51	Exploring the synergetic electrochemical performance of cobalt sulfide/cobalt phosphate composites for supercapattery devices with high-energy and rate capability. <i>Electrochimica Acta</i> , 2021 , 384, 138358	6.7	8
50	Formation of pn-junction with stable n-doping in graphene field effect transistors using e-beam irradiation. <i>Optical Materials</i> , 2017 , 69, 254-258	3.3	7
49	Enhanced intervalley scattering of aluminum oxide-deposited graphene. <i>Carbon</i> , 2017 , 124, 188-192	10.4	7
48	Structural, dielectric and magnetic properties of (ZnFe2O4/Polystyrene) nanocomposites synthesized by micro-emuslion technique. <i>Ceramics International</i> , 2020 , 46, 5920-5928	5.1	7
47	Impact of Lanthanum-Doping on the Physical and Electrical Properties of Cobalt Ferrites. <i>Journal of Superconductivity and Novel Magnetism</i> , 2021 , 34, 1855-1864	1.5	7
46	Relaxation in bi-stable resistive states of chemical vapor deposition grown graphene. <i>Thin Solid Films</i> , 2012 , 522, 468-472	2.2	6
45	Ultrafast and Highly Stable Photodetectors Based on p-GeSe/n-ReSe Heterostructures. <i>ACS Applied Materials & Amp; Interfaces</i> , 2021 , 13, 47882-47894	9.5	6
44	Facile sonochemical synthesis of strontium phosphate based materials for potential application in supercapattery devices. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 32331-32342	6.7	6
43	Fabrication of novel perovskite oxide BaxMn1NO3 electrode for supercapacitors. <i>International Journal of Energy Research</i> , 2021 , 45, 4145-4154	4.5	6
42	Ultraviolet-light-driven charge carriers tunability mechanism in graphene. <i>Materials and Design</i> , 2018 , 159, 232-239	8.1	6
41	Gate-Dependent Tunnelling Current Modulation of Graphene/hBN Vertical Heterostructures. Advanced Engineering Materials, 2018, 20, 1800159	3.5	5

40	Influence of electron beam and ultraviolet irradiations on graphene field effect transistors. <i>Optical Materials</i> , 2017 , 72, 496-500	3.3	5	
39	Effect of polyaniline on the performance of zinc phosphate as a battery-grade material for supercapattery. <i>Journal of Energy Storage</i> , 2021 , 44, 103329	7.8	5	
38	On the Operational, shelf life and degradation mechanism in polymer field effect transistors. <i>Superlattices and Microstructures</i> , 2019 , 126, 125-131	2.8	5	
37	Superior performance of cobalt oxide/carbon composite for solid-state supercapattery devices. <i>Physica B: Condensed Matter</i> , 2021 , 603, 412561	2.8	5	
36	Fast and high photoresponsivity gallium telluride/hafnium selenide van der Waals heterostructure photodiode. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 7110-7118	7.1	5	
35	Effect of post-deposition annealing temperature on the charge carrier mobility and morphology of DPPDTT based organic field effect transistors. <i>Chemical Physics Letters</i> , 2020 , 750, 137507	2.5	4	
34	Structural defects controlled oxidation of UV irradiated graphene-based field effect transistors. <i>Diamond and Related Materials</i> , 2018 , 85, 112-116	3.5	4	
33	Ultraviolet-light-driven carrier density modulation of graphene based field effect transistors under oxygen- and argon atmosphere. <i>Applied Surface Science</i> , 2018 , 451, 40-44	6.7	4	
32	Evaluation of spectral, optoelectrical, dielectric, magnetic, and morphological properties of RE3+ (La3+, and Ce3+) and Co2+ co-doped Zn0.75Cu0.25Fe2O4 ferrites. <i>Materials Chemistry and Physics</i> , 2022 , 275, 125301	4.4	4	
31	Ultraviolet-light-driven current modulation of Au/WS2/Gr Schottky barrier. <i>Physica E:</i> Low-Dimensional Systems and Nanostructures, 2020 , 117, 113837	3	4	
30	Biomass derived activated carbon based hybrid supercapacitors. <i>Journal of Energy Storage</i> , 2021 , 40, 102751	7.8	4	
29	Binary composites of sonochemically synthesized cobalt phosphates/polyaniline for supercapattery devices. <i>Journal of Energy Storage</i> , 2021 , 42, 103150	7.8	4	
28	Platinum Disulfide (PtS2) and Silicon Pyramids: Efficient 2D/3D Heterojunction Tunneling and Breakdown Diodes. <i>ACS Applied Electronic Materials</i> , 2022 , 4, 917-924	4	4	
27	Enhancement in the mobility of solution processable polymer based FET by incorporating graphene interlayer. <i>Superlattices and Microstructures</i> , 2020 , 137, 106331	2.8	3	
26	Recent progress in the role of two-dimensional materials as an efficient charge transport layer in perovskite solar cells. <i>International Journal of Energy Research</i> , 2021 , 45, 12598-12613	4.5	3	
25	Enhanced electrochemical performance of battery-grade cobalt phosphate via magnetron sputtered copper interfacial layer for potential supercapattery applications. <i>International Journal of Energy Research</i> , 2021 , 45, 18658	4.5	3	
24	Highly porous terpolymer-MOF composite electrode material for high performance supercapattery devices. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 893, 115321	4.1	3	
23	Layer dependent electrical transport in exfoliated graphene FETs under UV illumination. <i>Applied Surface Science</i> , 2019 , 479, 863-873	6.7	2	

22	Influence of DC-biasing on the performance of graphene spin valve. <i>Solid State Communications</i> , 2018 , 272, 33-36	1.6	2
21	Superior performance of electrodeposited CoMnS as novel electrode material for supercapattery devices. <i>Journal of Energy Storage</i> , 2021 , 39, 102608	7.8	2
20	Exploring the electrochemical performance of copper-doped cobalt-manganese phosphates for potential supercapattery applications <i>RSC Advances</i> , 2021 , 11, 28042-28051	3.7	2
19	ReSe/metal interface for hydrogen gas sensing. <i>Journal of Colloid and Interface Science</i> , 2021 , 603, 511-	59.3	2
18	Spin-valve effect of 2D-materials based magnetic junctions 2020 , 253-272		1
17	Enhanced photoresponse and surface charge transfer mechanism of graphene-tungsten disulfide heterojunction. <i>Optical Materials</i> , 2019 , 98, 109426	3.3	1
16	Enhanced electrical performance and stability of graphene- l-cysteine bioelectronic devices. <i>Materials Chemistry and Physics</i> , 2017 , 201, 194-198	4.4	1
15	High-frequency impedance of single-walled carbon nanotube networks on transparent flexible substrate. <i>Physica Status Solidi (B): Basic Research</i> , 2014 , 251, 2461-2465	1.3	1
14	Battery-type electrodeposited ternary metal sulfides electrodes for advanced hybrid energy storage devices. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 115881	4.1	1
13	High performance and gate-controlled GeSe/HfS negative differential resistance device <i>RSC Advances</i> , 2022 , 12, 1278-1286	3.7	1
12	Exalted redox frameworks of Cu-MOF/polyaniline/RGO based composite electrodes by integrating silver nanoparticles as a catalytic agent for superior energy featured supercapatteries. <i>Electrochimica Acta</i> , 2021 , 400, 139489	6.7	1
11	Charge carrier modulation in dual-gated graphene field effect transistor using honey as polar organic gate dielectric. <i>Applied Physics A: Materials Science and Processing</i> , 2021 , 127, 1	2.6	1
10	Interaction driven quantum Hall effect in artificially stacked graphene bilayers. <i>Scientific Reports</i> , 2016 , 6, 24815	4.9	1
9	Self-biased photovoltaic behavior in van der Waals MoTe2/MoSe2 heterostructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021 , 134, 114912	3	1
8	Recent progress of battery grade metal sulfides for hybrid energy storage devices. <i>International Journal of Energy Research</i> , 2022 , 46, 3906-3938	4.5	1
7	Cobalt manganese phosphate and sulfide electrode materials for potential applications of battery-supercapacitor hybrid devices. <i>Journal of Energy Storage</i> , 2022 , 50, 104632	7.8	1
6	Synergetic electrochemical performance of strontium phosphate/polyaniline/graphene for high performance supercapattery devices. <i>Diamond and Related Materials</i> , 2022 , 108918	3.5	0
5	Effect of an optimal oxide layer on the efficiency of graphene-silicon Schottky junction solar cell. <i>International Journal of Energy Research</i> , 2021 , 45, 18173-18181	4.5	O

LIST OF PUBLICATIONS

4	Drive towards Sonochemically Synthesized Ternary Metal Sulfide for High-Energy Supercapattery. Energy Technology,2100110	3.5	О
3	Impact of interfacial trap states on achieving bias stability in polymer field-effect transistors. <i>Microelectronic Engineering</i> , 2021 , 247, 111602	2.5	O
2	Synergestic effect of magnetron sputtered silver nano-islands and Co3(PO4)2 for high performance supercapattery devices. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 898, 115612	4.1	0
1	Tweaking the properties of aluminum oxide shielded graphene-based transistors. <i>Applied Surface Science</i> , 2019 , 491, 742-749	6.7	