Sajjad Z Hussain

List of Publications by Year in descending order

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ΝΙΙΔΟ 7 ΗΠΟΟΛΙΝ

#	Article	IF	CITATIONS
1	Thickness-dependent monochalcogenide GeSe-based CBRAM for memory and artificial electronic synapses. Nano Research, 2022, 15, 2263-2277.	5.8	19
2	Bifunctional iron molybdate as highly effective heterogeneous electro-Fenton catalyst and Li-ion battery anode. Chemosphere, 2022, 286, 131846.	4.2	5
3	Unveiling a binary metal selenide composite of CuSe polyhedrons/CoSe2 nanorods decorated graphene oxide as an active electrode material for high-performance hybrid supercapacitors. Chemical Engineering Journal, 2022, 427, 131535.	6.6	63
4	A highly efficient A-site deficient perovskite interlaced within two dimensional MXene nanosheets as an active electrocatalyst for hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 37476-37489.	3.8	20
5	Engineering the active sites tuned MoS2 nanoarray structures by transition metal doping for hydrogen evolution and supercapacitor applications. Journal of Alloys and Compounds, 2022, 893, 162271.	2.8	57
6	Microwave-assisted synthesis of NiTe2 photocatalyst as a facile and scalable approach for energy-efficient photocatalysis and detoxification of harmful organic dyes. Separation and Purification Technology, 2022, 282, 120025.	3.9	12
7	Ultrasonically derived WSe2 nanostructure embedded MXene hybrid composites for supercapacitors and hydrogen evolution reactions. Renewable Energy, 2022, 185, 585-597.	4.3	38
8	Photocatalytic Degradation Properties of Liâ€Cr Ions Substituted CoFe ₂ O ₄ Nanoparticles for Wastewater Treatment Application. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	38
9	A Facile Design of Solution-Phase Based VS2 Multifunctional Electrode for Green Energy Harvesting and Storage. Nanomaterials, 2022, 12, 339.	1.9	21
10	Decoration of X2C nanoparticles on CdS nanostructures for highly efficient photocatalytic wastewater treatment under visible light. Applied Surface Science, 2022, 583, 152533.	3.1	4
11	Impact of Molybdenum Dichalcogenides on the Active and Holeâ€Transport Layers for Perovskite Solar Cells, Xâ€Ray Detectors, and Photodetectors. Small, 2022, 18, e2104216.	5.2	22
12	Unveiling the Redox Electrochemistry of MOFâ€Derived fccâ€NiCo@GC Polyhedron as an Advanced Electrode Material for Boosting Specific Energy of the Supercapattery. Small, 2022, 18, e2107284.	5.2	43
13	Binder free heteroatomâ€doped graphene oxide as high energy density electrodes for supercapacitor applications. International Journal of Energy Research, 2022, 46, 9643-9666.	2.2	9
14	High energy storage capabilities of CaCu3Ti4O12 for paper-based zinc–air battery. Scientific Reports, 2022, 12, 3999.	1.6	18
15	Fullerene-free, MoTe2 atomic layer blended bulk heterojunctions for improved organic solar cell and photodetector performance. Journal of Materials Research and Technology, 2022, 17, 2875-2887.	2.6	5
16	Schottky barrier height modulation and photoconductivity in a vertical graphene/ReSe2 vdW p-n heterojunction barristor. Journal of Materials Research and Technology, 2022, 17, 2796-2806.	2.6	7
17	Fabrication of InGaZnO-SnO2/PCBM hybrid electron transfer layer for high-performance Perovskite solar cell and X-ray detector. Journal of Alloys and Compounds, 2022, 906, 164399.	2.8	15
18	Development of <scp>MXene</scp> / <scp> WO ₃ </scp> embedded <scp>PEDOT</scp> : <scp>PSS</scp> hole transport layers for highly efficient perovskite solar cells and Xâ€ray detectors. International Journal of Energy Research, 2022, 46, 12485-12497.	2.2	13

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19	Nearâ€Direct Band Alignment of MoTe ₂ /ReSe ₂ Typeâ€II pâ€n Heterojunction for Efficient VNIR Photodetection. Advanced Materials Technologies, 2022, 7, .	3.0	9
20	Bimetallic Cu/Fe MOF-Based Nanosheet Film via Binder-Free Drop-Casting Route: A Highly Efficient Urea-Electrolysis Catalyst. Nanomaterials, 2022, 12, 1916.	1.9	33
21	MoO3@MoS2 Core-Shell Structured Hybrid Anode Materials for Lithium-Ion Batteries. Nanomaterials, 2022, 12, 2008.	1.9	10
22	Supercapacitor performance based on nitrogen and sulfur coâ€doped hierarchically porous carbons: Superior rate capability and cycle stability. International Journal of Energy Research, 2022, 46, 15602-15616.	2.2	31
23	Enhanced structural, electromagnetic and absorption features of CoSm ferrite-metamaterial absorbers through synergistic effects. Ceramics International, 2022, 48, 29561-29571.	2.3	15
24	Novel core-shell structured electrocatalyst with 1D-NiTe2 over 3D metal structure for efficient hydrogen evolution reactions. Journal of Alloys and Compounds, 2022, 918, 165797.	2.8	7
25	Fabrication of High-Performance Solar Cells and X-ray Detectors Using MoX ₂ @CNT Nanocomposite-Tuned Perovskite Layers. ACS Applied Materials & Interfaces, 2022, 14, 33626-33640.	4.0	7
26	The effect of boron-doped carbon nanotubes blended with active layers in achieving high-efficiency polymer solar cells and X-ray detectors. Journal of Alloys and Compounds, 2022, 922, 166137.	2.8	5
27	Versatile GeS-based CBRAM with compliance-current-controlled threshold and bipolar resistive switching for electronic synapses. Applied Materials Today, 2022, 29, 101554.	2.3	10
28	Templateâ€free synthesis of oneâ€dimensional cobalt sulfide nanorod array as an attractive architecture for overall water splitting. International Journal of Energy Research, 2021, 45, 2785-2796.	2.2	19
29	Morphologically engineered metal oxides for the enhanced removal of multiple pollutants from water with degradation mechanism. Journal of Environmental Chemical Engineering, 2021, 9, 104852.	3.3	19
30	MoS2@X2C (XÂ=ÂMo or W) hybrids for enhanced supercapacitor and hydrogen evolution performances. Chemical Engineering Journal, 2021, 421, 127843.	6.6	49
31	Improving Lithiumâ€lon Halfâ€/Fullâ€Cell Performance of WO ₃ â€Protected SnO ₂ Core‣hell Nanoarchitectures. ChemSusChem, 2021, 14, 917-928.	3.6	7
32	Highly dispersive Co ₃ O ₄ nanoparticles incorporated into a cellulose nanofiber for a high-performance flexible supercapacitor. Nanoscale, 2021, 13, 355-370.	2.8	98
33	Mixedâ€phase <scp> MoS ₂ </scp> decorated reduced graphene oxide hybrid composites for efficient symmetric supercapacitors. International Journal of Energy Research, 2021, 45, 9193-9209.	2.2	28
34	Engineering MoSe ₂ /WS ₂ Hybrids to Replace the Scarce Platinum Electrode for Hydrogen Evolution Reactions and Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 5061-5072.	4.0	69
35	The role of uniformly distributed ZnO nanoparticles on cellulose nanofibers in flexible solid state symmetric supercapacitors. Journal of Materials Chemistry A, 2021, 9, 11580-11594.	5.2	58
36	NIR self-powered photodetection and gate tunable rectification behavior in 2D GeSe/MoSe2 heterojunction diode. Scientific Reports, 2021, 11, 3688.	1.6	34

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37	Highly Fast Response of Pd/Ta2O5/SiC and Pd/Ta2O5/Si Schottky Diode-Based Hydrogen Sensors. Sensors, 2021, 21, 1042.	2.1	3
38	Influence of morphological tuned nanostructure hybrid layers on efficient bulk heterojunction organic solar cell and X-ray detector performances. Applied Surface Science, 2021, 543, 148863.	3.1	17
39	Suppressed photocatalytic activity of ZnO based Core@Shell and RCore@Shell nanostructure incorporated in the cellulose nanofiber. Chemosphere, 2021, 269, 129311.	4.2	13
40	Experimental and theoretical insights to demonstrate the hydrogen evolution activity of layered platinum dichalcogenides electrocatalysts. Journal of Materials Research and Technology, 2021, 12, 385-398.	2.6	11
41	Ultrasonically Processed WSe2 Nanosheets Blended Bulk Heterojunction Active Layer for High-Performance Polymer Solar Cells and X-ray Detectors. Materials, 2021, 14, 3206.	1.3	9
42	Influence of selenium precursors on the formation of iron selenide nanostructures (FeSe2): Efficient Electro-Fenton catalysts for detoxification of harmful organic dyestuffs. Chemosphere, 2021, 272, 129639.	4.2	27
43	Designing the MXene/molybdenum diselenide hybrid nanostructures for highâ€performance symmetric supercapacitor and hydrogen evolution applications. International Journal of Energy Research, 2021, 45, 18770-18785.	2.2	23
44	Theoretical evaluation and experimental investigation of layered 2H/1T-phase MoS2 and its reduced graphene-oxide hybrids for hydrogen evolution reactions. Journal of Alloys and Compounds, 2021, 868, 159272.	2.8	22
45	Hierarchical <scp>NiCo</scp> / <scp>NiO</scp> / <scp>NiCo ₂ O ₄ </scp> composite formation by solvothermal reaction as a potential electrode material for hydrogen evolutions and asymmetric supercapacitors. International Journal of Energy Research, 2021, 45, 19947-19961.	2.2	33
46	Eutectoid WxC embedded WS2 nanosheets as a hybrid composite anode for lithium-ion batteries. Ceramics International, 2021, 47, 18646-18655.	2.3	12
47	Reutilizing Methane Reforming Spent Catalysts as Efficient Overall Water-Splitting Electrocatalysts. ACS Omega, 2021, 6, 21316-21326.	1.6	16
48	Highly Active Mo2C@WS2 Hybrid Electrode for Enhanced Hydrogen Evolution Reaction. Catalysts, 2021, 11, 1060.	1.6	2
49	Hierarchical Mo2C@CNT Hybrid Structure Formation for the Improved Lithium-Ion Battery Storage Performance. Nanomaterials, 2021, 11, 2195.	1.9	6
50	MoS2@Mo2C hybrid nanostructures formation as an efficient anode material for lithium-ion batteries. Journal of Materials Research and Technology, 2021, 14, 2382-2393.	2.6	20
51	Engineering MoTe2 and Janus SeMoTe nanosheet structures: First-principles roadmap and practical uses in hydrogen evolution reactions and symmetric supercapacitors. Nano Energy, 2021, 87, 106161.	8.2	50
52	Catalytic decontamination of organic/inorganic pollutants in water and green H2 generation using nanoporous SnS2 micro-flower structured film. Journal of Hazardous Materials, 2021, 417, 126105.	6.5	48
53	Ternary Zn1-xNixSe nanostructures as efficient photocatalysts for detoxification of hazardous Congo red, methyl orange, and chrome yellow dyes in wastewater sources. Environmental Research, 2021, 201, 111587.	3.7	16
54	Engineering-safer-by design ZnO nanoparticles incorporated cellulose nanofiber hybrid for high UV protection and low photocatalytic activity with mechanism. Journal of Environmental Chemical Engineering, 2021, 9, 105845.	3.3	21

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55	Characteristics of Mo2C-CNTs hybrid blended hole transport layer in the perovskite solar cells and X-ray detectors. Journal of Alloys and Compounds, 2021, 885, 161039.	2.8	19
56	Self-standing SnS nanosheet array: a bifunctional binder-free thin film catalyst for electrochemical hydrogen generation and wastewater treatment. Dalton Transactions, 2021, 50, 12723-12729.	1.6	27
57	Deep-Ultraviolet (DUV)-Induced Doping in Single Channel Graphene for Pn-Junction. Nanomaterials, 2021, 11, 3003.	1.9	1
58	Flexible Memory Device Composed of Metal-Oxide and Two-Dimensional Material (SnO2/WTe2) Exhibiting Stable Resistive Switching. Materials, 2021, 14, 7535.	1.3	19
59	Enhanced electrocatalytic properties in MoS2/MoTe2 hybrid heterostructures for dye-sensitized solar cells. Applied Surface Science, 2020, 504, 144401.	3.1	32
60	Engineering the novel MoSe2-Mo2C hybrid nanoarray electrodes for energy storage and water splitting applications. Applied Catalysis B: Environmental, 2020, 264, 118531.	10.8	136
61	1D-CoSe ₂ nanoarray: a designed structure for efficient hydrogen evolution and symmetric supercapacitor characteristics. Dalton Transactions, 2020, 49, 14191-14200.	1.6	42
62	Facile preparation of tungsten carbide nanoparticles for an efficient oxalic acid sensor via imprinting. Microchemical Journal, 2020, 159, 105404.	2.3	17
63	Thicknessâ€Dependent, Gateâ€Tunable Rectification and Highly Sensitive Photovoltaic Behavior of Heterostructured GeSe/WS ₂ p–n Diode. Advanced Materials Interfaces, 2020, 7, 2000893.	1.9	25
64	Hybrid Design Using Carbon Nanotubes Decorated with Mo ₂ C and W ₂ C Nanoparticles for Supercapacitors and Hydrogen Evolution Reactions. ACS Sustainable Chemistry and Engineering, 2020, 8, 12248-12259.	3.2	73
65	Recent Advances in Nanostructured Transition Metal Carbide- and Nitride-Based Cathode Electrocatalysts for Li–O2 Batteries (LOBs): A Brief Review. Nanomaterials, 2020, 10, 2106.	1.9	14
66	One-Pot Synthesis of W2C/WS2 Hybrid Nanostructures for Improved Hydrogen Evolution Reactions and Supercapacitors. Nanomaterials, 2020, 10, 1597.	1.9	39
67	Asymmetric electrode incorporated 2D GeSe for self-biased and efficient photodetection. Scientific Reports, 2020, 10, 9374.	1.6	38
68	Role of perovskites as a biâ€functional catalyst for electrochemical water splitting: A review. International Journal of Energy Research, 2020, 44, 9714-9747.	2.2	38
69	Ionic Liquid-Based Electrolytes for Energy Storage Devices: A Brief Review on Their Limits and Applications. Polymers, 2020, 12, 918.	2.0	124
70	Dependence of InGaZnO and SnO2 thin film stacking sequence for the resistive switching characteristics of conductive bridge memory devices. Applied Surface Science, 2020, 525, 146390.	3.1	31
71	Ceramic based multi walled carbon nanotubes composites for highly efficient electromagnetic interference shielding. Journal of Materials Science: Materials in Electronics, 2019, 30, 13381-13388. 	1.1	9
72	Design of WSe ₂ /MoS ₂ Heterostructures as the Counter Electrode to Replace Pt for Dye-Sensitized Solar Cell. ACS Sustainable Chemistry and Engineering, 2019, 7, 13195-13205.	3.2	57

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73	Fabrication of Robust Hydrogen Evolution Reaction Electrocatalyst Using Ag2Se by Vacuum Evaporation. Nanomaterials, 2019, 9, 1460.	1.9	12
74	Synthesis of Mo2C and W2C Nanoparticle Electrocatalysts for the Efficient Hydrogen Evolution Reaction in Alkali and Acid Electrolytes. Frontiers in Chemistry, 2019, 7, 716.	1.8	37
75	Fabrication of MoSe2 decorated three-dimensional graphene composites structure as a highly stable electrocatalyst for improved hydrogen evolution reaction. Renewable Energy, 2019, 143, 1659-1669.	4.3	32
76	Facile preparation of molybdenum carbide (Mo2C) nanoparticles and its effective utilization in electrochemical sensing of folic acid via imprinting. Biosensors and Bioelectronics, 2019, 140, 111330.	5.3	59
77	Fabrication of MoS2/WSe2 heterostructures as electrocatalyst for enhanced hydrogen evolution reaction. Applied Surface Science, 2019, 480, 611-620.	3.1	82
78	Facile and cost-effective growth of MoS2 on 3D porous graphene-coated Ni foam for robust and stable hydrogen evolution reaction. Journal of Alloys and Compounds, 2019, 788, 267-276.	2.8	27
79	Facile method to synthesis hybrid phase 1T@2H MoSe2 nanostructures for rechargeable lithium ion batteries. Journal of Electroanalytical Chemistry, 2019, 833, 333-339.	1.9	39
80	One-pot facile methodology to synthesize MoS2-graphene hybrid nanocomposites for supercapacitors with improved electrochemical capacitance. Composites Part B: Engineering, 2019, 161, 555-563.	5.9	85
81	Design of Basal Plane Edges in Metal-Doped Nanostripes-Structured MoSe ₂ Atomic Layers To Enhance Hydrogen Evolution Reaction Activity. ACS Sustainable Chemistry and Engineering, 2019, 7, 458-469.	3.2	58
82	Construction of dye-sensitized solar cells using wet chemical route synthesized MoSe2 counter electrode. Journal of Industrial and Engineering Chemistry, 2019, 69, 379-386.	2.9	18
83	Influence of an Al2O3 interlayer in a directly grown graphene-silicon Schottky junction solar cell. Carbon, 2018, 132, 157-164.	5.4	78
84	Facile and cost-effective methodology to fabricate MoS 2 counter electrode for efficient dye-sensitized solar cells. Dyes and Pigments, 2018, 151, 7-14.	2.0	47
85	Large area growth of MoTe2 films as high performance counter electrodes for dye-sensitized solar cells. Scientific Reports, 2018, 8, 29.	1.6	68
86	WS2/CoSe2 heterostructure: A designed structure as catalysts for enhanced hydrogen evolution performance. Journal of Industrial and Engineering Chemistry, 2018, 65, 167-174.	2.9	34
87	Selective AuCl3 doping of graphene for reducing contact resistance of graphene devices. Applied Surface Science, 2018, 427, 48-54.	3.1	14
88	Development of a WS ₂ /MoTe ₂ heterostructure as a counter electrode for the improved performance in dye-sensitized solar cells. Inorganic Chemistry Frontiers, 2018, 5, 3178-3183.	3.0	27
89	Inorganic molecule (O ₂ , NO) adsorption on nitrogen- and phosphorus-doped MoS ₂ monolayer using first principle calculations. RSC Advances, 2018, 8, 38656-38666. 	1.7	21
90	WS(1â^'x)Sex Nanoparticles Decorated Three-Dimensional Graphene on Nickel Foam: A Robust and Highly Efficient Electrocatalyst for the Hydrogen Evolution Reaction. Nanomaterials, 2018, 8, 929.	1.9	24

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91	Dynamics of liquid crystal on hexagonal lattice. 2D Materials, 2018, 5, 045021.	2.0	5
92	Visualizing Degradation of Black Phosphorus Using Liquid Crystals. Scientific Reports, 2018, 8, 12966.	1.6	10
93	Facile Synthesis of Molybdenum Diselenide Layers for High-Performance Hydrogen Evolution Electrocatalysts. ACS Omega, 2018, 3, 5799-5807.	1.6	20
94	CuS/WS2 and CuS/MoS2 heterostructures for high performance counter electrodes in dye-sensitized solar cells. Solar Energy, 2018, 171, 122-129.	2.9	50
95	A vertical WSe ₂ –MoSe ₂ p–n heterostructure with tunable gate rectification. RSC Advances, 2018, 8, 25514-25518.	1.7	23
96	Improved Hydrogen Evolution Reaction Performance using MoS ₂ –WS ₂ Heterostructures by Physicochemical Process. ACS Sustainable Chemistry and Engineering, 2018, 6, 8400-8409.	3.2	111
97	High Performance MoSe ₂ /Mo Counter Electrodes Based- Dye-Sensitized Solar Cells. Journal of the Electrochemical Society, 2017, 164, E11-E16.	1.3	20
98	Study of Grains and Boundaries of Molybdenum Diselenide and Tungsten Diselenide Using Liquid Crystal. Nano Letters, 2017, 17, 1474-1481.	4.5	24
99	Growth of a WSe 2 /W counter electrode by sputtering and selenization annealing for high-efficiency dye-sensitized solar cells. Applied Surface Science, 2017, 406, 84-90.	3.1	32
100	Direct synthesis of thickness-tunable MoS2 quantum dot thin layers: Optical, structural and electrical properties and their application to hydrogen evolution. Nano Energy, 2017, 35, 101-114.	8.2	99
101	Synthesis of MoS _{2(1â^'x)} Se _{2x} and WS _{2(1â^'x)} Se _{2x} for enhanced hydrogen evolution reaction performance. Inorganic Chemistry Frontiers, 2017, 4, 2068-2074.	3.0	27
102	n-MoS ₂ /p-Si Solar Cells with Al ₂ O ₃ Passivation for Enhanced Photogeneration. ACS Applied Materials & amp; Interfaces, 2016, 8, 29383-29390.	4.0	77
103	Layer-modulated, wafer scale and continuous ultra-thin WS ₂ films grown by RF sputtering via post-deposition annealing. Journal of Materials Chemistry C, 2016, 4, 7846-7852.	2.7	26
104	Selective growth of graphene in layer-by-layer via chemical vapor deposition. Nanoscale, 2016, 8, 14633-14642.	2.8	10
105	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.	1.6	104
106	A progressive route for tailoring electrical transport in MoS2. Nano Research, 2016, 9, 380-391.	5.8	14
107	Synthesis and characterization of large-area and continuous MoS ₂ atomic layers by RF magnetron sputtering. Nanoscale, 2016, 8, 4340-4347.	2.8	74
108	Highâ€Performance Platinumâ€Free Dyeâ€Sensitized Solar Cells with Molybdenum Disulfide Films as Counter Electrodes. ChemPhysChem, 2015, 16, 3959-3965.	1.0	27

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109	Cu/MoS ₂ /ITO based hybrid structure for catalysis of hydrazine oxidation. RSC Advances, 2015, 5, 15374-15378.	1.7	11
110	A highly sensitive enzymeless glucose sensor based on 3D graphene–Cu hybrid electrodes. New Journal of Chemistry, 2015, 39, 7481-7487.	1.4	21
111	Controlled synthesis and optical properties of polycrystalline molybdenum disulfide atomic layers grown by chemical vapor deposition. Journal of Alloys and Compounds, 2015, 653, 369-378.	2.8	20
112	Sputtering and sulfurization-combined synthesis of a transparent WS ₂ counter electrode and its application to dye-sensitized solar cells. RSC Advances, 2015, 5, 103567-103572.	1.7	32
113	Physical and electrical properties of graphene grown under different hydrogen flow in low pressure chemical vapor deposition. Nanoscale Research Letters, 2014, 9, 546.	3.1	39
114	Graphene film growth on sputtered thin Cu–Ni alloy film by inductively coupled plasma chemical vapor deposition. RSC Advances, 2014, 4, 63349-63353.	1.7	6
115	Retention studies of chromium (VI) from aqueous solution on the surface of a novel carbonaceous material. Arabian Journal of Geosciences, 2013, 6, 4547-4556.	0.6	17
116	Effect of oxygen content on the structural and optical properties of ZnO films grown by atmospheric pressure MOCVD. Progress in Natural Science: Materials International, 2013, 23, 44-50.	1.8	22
117	Anions effect on the low temperature growth of ZnO nanostructures. Vacuum, 2012, 86, 1998-2001.	1.6	22
118	Honeycomb β-Ni(OH)2 films grown on 3D nickel foam substrates at low temperature. Materials Letters, 2012, 69, 37-40.	1.3	26
119	Influence of helium-ion bombardment on the optical properties of ZnO nanorods/p-GaN light-emitting diodes. Nanoscale Research Letters, 2011, 6, 628.	3.1	13
120	Study of the Distribution of Radiative Defects and Reabsorption of the UV in ZnO Nanorods-Organic Hybrid White Light Emitting Diodes (LEDs). Materials, 2011, 4, 1260-1270.	1.3	10