Ze-Xing Wu

List of Publications by Year
in descending order

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114 papers	5,642 citations	53660 45 h-index	91712 69 g-index
115 all docs	115 docs citations	115 times ranked	5930 citing authors

#	Article	IF	Citations
1	Ni-foam supported Co(OH)F and Coâ€“P nanoarrays for energy-efficient hydrogen production via urea electrolysis. Journal of Materials Chemistry A, 2019, 7, 3697-3703.	5.2	235
2	Porous Structured Niâ€“Feâ€“P Nanocubes Derived from a Prussian Blue Analogue as an Electrocatalyst for Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 26134-26142.	4.0	220
3	Facile synthesis of Coâ€“Feâ€“Bâ€“P nanochains as an efficient bifunctional electrocatalyst for overall water-splitting. Nanoscale, 2019, 11, 7506-7512.	2.8	195
4	Engineering Bismuthâ€“Tin Interface in Bimetallic Aerogel with a 3D Porous Structure for Highly Selective Electrocatalytic CO₂ Reduction to HCOOH. Angewandte Chemie - International Edition, 2021, 60, 12554-12559.	7.2	188
5	Recent Progress of Vacancy Engineering for Electrochemical Energy Conversion Related Applications. Advanced Functional Materials, 2021, 31, 2009070.	7.8	166
6	Facile preparation of carbon sphere supported molybdenum compounds (P, C and S) as hydrogen evolution electrocatalysts in acid and alkaline electrolytes. Nano Energy, 2017, 32, 511-519.	8.2	143
7	Oxygen Vacancyâ€“Rich Inâ€Doped CoO/CoP Heterostructure as an Effective Air Cathode for Rechargeable Znâ€“Air Batteries. Small, 2019, 15, e1904210.	5.2	142
8	Nitrogen and sulfur co-doping of 3D hollow-structured carbon spheres as an efficient and stable metal free catalyst for the oxygen reduction reaction. Nanoscale, 2016, 8, 19086-19092.	2.8	125
9	Corrosion Engineering on Iron Foam toward Efficiently Electrocatalytic Overall Water Splitting Powered by Sustainable Energy. Advanced Functional Materials, 2021, 31, 2010437.	7.8	125
10	Facile synthesis of MoP-Ru2P on porous N, P co-doped carbon for efficiently electrocatalytic hydrogen evolution reaction in full pH range. Applied Catalysis B: Environmental, 2022, 303, 120879.	10.8	111
11	Controllable synthesis of molybdenum-based electrocatalysts for a hydrogen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 4879-4885.	5.2	110
12	Cu(II) Ions Induced Structural Transformation of Cobalt Selenides for Remarkable Enhancement in Oxygen/Hydrogen Electrocatalysis. ACS Catalysis, 2019, 9, 10761-10772.	5.5	110
13	Trifle Pt coupled with NiFe hydroxide synthesized via corrosion engineering to boost the cleavage of water molecule for alkaline water-splitting. Applied Catalysis B: Environmental, 2021, 297, 120395.	10.8	109
14	MoS₂â€“MoP heterostructured nanosheets on polymer-derived carbon as an electrocatalyst for hydrogen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 616-622.	5.2	104
15	Recent progress in Co₉S₈-based materials for hydrogen and oxygen electrocatalysis. Journal of Materials Chemistry A, 2019, 7, 16068-16088.	5.2	95
16	Hierarchically Porous Electrocatalyst with Vertically Aligned Defect-Rich CoMoS Nanosheets for the Hydrogen Evolution Reaction in an Alkaline Medium. ACS Applied Materials & Interfaces, 2017, 9, 5288-5294.	4.0	93
17	Hierarchical carbon microflowers supported defect-rich Co3S4 nanoparticles: An efficient electrocatalyst for water splitting. Carbon, 2020, 160, 133-144.	5.4	90
18	Boosting Oxygen Reduction Catalysis with N-doped Carbon Coated Co₉S₈ Microtubes. ACS Applied Materials & Interfaces, 2018, 10, 25415-25421.	4.0	89

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19	MOF-derived two-dimensional N-doped carbon nanosheets coupled with Coâ€“Feâ€“Pâ€“Se as efficient bifunctional OER/ORR catalysts. Nanoscale, 2019, 11, 20144-20150.	2.8	83
20	Polydopamine-assisted construction of cobalt phosphide encapsulated in N-doped carbon porous polyhedrons for enhanced overall water splitting. Carbon, 2019, 145, 694-700.	5.4	82
21	Sulfurated Metalâ€“Organic Framework-Derived Nanocomposites for Efficient Bifunctional Oxygen Electrocatalysis and Rechargeable Znâ€“Air Battery. ACS Sustainable Chemistry and Engineering, 2020, 8, 9226-9234.	3.2	79
22	Supramolecular gel-assisted synthesis of double shelled Co@CoO@Nâ€“C/C nanoparticles with synergistic electrocatalytic activity for the oxygen reduction reaction. Nanoscale, 2016, 8, 4681-4687.	2.8	74
23	Hollowâ€Structured Carbonâ€Supported Nickel Cobaltite Nanoparticles as an Efficient Bifunctional Electrocatalyst for the Oxygen Reduction and Evolution Reactions. ChemCatChem, 2016, 8, 736-742.	1.8	70
24	Interface Engineering of MoS₂ for Electrocatalytic Performance Optimization for Hydrogen Generation via Urea Electrolysis. ACS Sustainable Chemistry and Engineering, 2019, 7, 16577-16584.	3.2	70
25	Recent development of two-dimensional metalâ€“organic framework derived electrocatalysts for hydrogen and oxygen electrocatalysis. Nanoscale, 2020, 12, 18497-18522.	2.8	69
26	Nitrogen and sulfur co-doping of partially exfoliated MWCNTs as 3-D structured electrocatalysts for the oxygen reduction reaction. Journal of Materials Chemistry A, 2016, 4, 5678-5684.	5.2	66
27	Highly efficient and stable MoP-RGO nanoparticles as electrocatalysts for hydrogen evolution. Electrochimica Acta, 2017, 232, 254-261.	2.6	66
28	Anchoring RuxP on 3D hollow graphene nanospheres as efficient and pH-universal electrocatalysts for the hydrogen evolution reaction. Carbon, 2020, 161, 44-50.	5.4	64
29	N-doped graphene combined with alloys (NiCo, CoFe) and their oxides as multifunctional electrocatalysts for oxygen and hydrogen electrode reactions. Carbon, 2018, 139, 35-44.	5.4	63
30	Synergistic enhancement of nitrogen and sulfur co-doped graphene with carbon nanosphere insertion for the electrocatalytic oxygen reduction reaction. Journal of Materials Chemistry A, 2015, 3, 7727-7731.	5.2	61
31	Effect of KOH etching on the structure and electrochemical performance of SiOC anodes for lithium-ion batteries. Electrochimica Acta, 2017, 245, 287-295.	2.6	61
32	Probing Active Sites on Metal-Free, Nitrogen-Doped Carbons for Oxygen Electroreduction: A Review. Catalysts, 2018, 8, 509.	1.6	60
33	Recent Progress in Nitrogen-Doped Metal-Free Electrocatalysts for Oxygen Reduction Reaction. Catalysts, 2018, 8, 196.	1.6	59
34	Coordination effect of network NiO nanosheet and a carbon layer on the cathode side in constructing a high-performance lithiumâ€“sulfur battery. Journal of Materials Chemistry A, 2018, 6, 6503-6509.	5.2	58
35	Strategies on improving the electrocatalytic hydrogen evolution performances of metal phosphides. Chinese Journal of Catalysis, 2021, 42, 1876-1902.	6.9	58
36	FeP Nanocrystals Embedded in N-Doped Carbon Nanosheets for Efficient Electrocatalytic Hydrogen Generation over a Broad pH Range. ACS Sustainable Chemistry and Engineering, 2018, 6, 11587-11594.	3.2	56

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37	Three-dimensional hollow-structured binary oxide particles as an advanced anode material for high-rate and long cycle life lithium-ion batteries. Nano Energy, 2016, 20, 212-220.	8.2	53
38	Highly nitrogen and sulfur dual-doped carbon microspheres for supercapacitors. Science Bulletin, 2017, 62, 1011-1017.	4.3	52
39	Rational design of three-dimensional nitrogen and phosphorus co-doped graphene nanoribbons/CNTs composite for the oxygen reduction. Chinese Chemical Letters, 2016, 27, 597-601.	4.8	51
40	Controllable construction of flower-like FeS/Fe2O3 composite for lithium storage. Journal of Power Sources, 2018, 392, 193-199.	4.0	50
41	3D hollow structured Co₂FeO₄/MWCNT as an efficient non-precious metal electrocatalyst for oxygen reduction reaction. Journal of Materials Chemistry A, 2015, 3, 1601-1608.	5.2	48
42	Cobaltâ€“Tanninâ€Frameworkâ€Derived Amorphous Coâˆ’P/Coâˆ’Nâˆ’C on N, P Coâ€Doped Porous Carbon with Abundant Active Moieties for Efficient Oxygen Reactions and Water Splitting. ChemSusChem, 2019, 12, 830-838.	3.6	48
43	Rational design of Cuâ€“Co thiospinel ternary sheet arrays for highly efficient electrocatalytic water splitting. Journal of Materials Chemistry A, 2020, 8, 1799-1807.	5.2	48
44	Biomass derived nitrogen doped carbon with porous architecture as efficient electrode materials for supercapacitors. Chinese Chemical Letters, 2017, 28, 2227-2230.	4.8	47
45	Structurally ordered Ptâ€“Zn/C series nanoparticles as efficient anode catalysts for formic acid electrooxidation. Journal of Materials Chemistry A, 2015, 3, 22129-22135.	5.2	46
46	Nitrogenâ€Doped Hierarchical Porous Carbons Derived from Sodium Alginate as Efficient Oxygen Reduction Reaction Electrocatalysts. ChemCatChem, 2017, 9, 809-815.	1.8	45
47	Interface engineering of oxygen-vacancy-rich NiCo₂O₄/NiCoP heterostructure as an efficient bifunctional electrocatalyst for overall water splitting. Catalysis Science and Technology, 2020, 10, 5559-5565.	2.1	43
48	Metal-organic frameworks derived bundled N-doped carbon nanowires confined cobalt phosphide nanocrystals as a robust electrocatalyst for hydrogen production. Electrochimica Acta, 2019, 299, 423-429.	2.6	42
49	Black phosphorus with superior lithium ion batteries performance directly synthesized by the efficient thermal-vaporization method. Electrochimica Acta, 2018, 263, 272-276.	2.6	40
50	High-rate and long-life lithium-ion battery performance of hierarchically hollow-structured NiCo2O4/CNT nanocomposite. Electrochimica Acta, 2017, 244, 8-15.	2.6	39
51	Defective graphene aerogel-supported Biâ€“CoP nanoparticles as a high-potential air cathode for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2019, 7, 22507-22513.	5.2	39
52	Highly Nitrogen-Doped Three-Dimensional Carbon Fibers Network with Superior Sodium Storage Capacity. ACS Applied Materials & Interfaces, 2017, 9, 28604-28611.	4.0	38
53	N, S-codoped CNTs supported Co4S3 nanoparticles prepared by using CdS nanorods as sulfur sources and hard templates: An efficient catalyst for reversible oxygen electrocatalysis. Journal of Colloid and Interface Science, 2020, 560, 186-197.	5.0	38
54	Engineering Bismuthâ€“Tin Interface in Bimetallic Aerogel with a 3D Porous Structure for Highly Selective Electrocatalytic CO₂ Reduction to HCOOH. Angewandte Chemie, 2021, 133, 12662-12667.	1.6	36

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55	Evolution of interfacial coupling interaction of Ni-Ru species for pH-universal water splitting. Chemical Engineering Journal, 2021, 426, 130762.	6.6	36
56	An in situ generated 3D porous nanostructure on 2D nanosheets to boost the oxygen evolution reaction for water-splitting. Nanoscale, 2022, 14, 4566-4572.	2.8	36
57	Phosphorus doped two-dimensional CoFe₂O₄ nanobelts decorated with Ru nanoclusters and Coâ€“Fe hydroxide as efficient electrocatalysts toward hydrogen generation. Inorganic Chemistry Frontiers, 2022, 9, 1847-1855.	3.0	34
58	Corrosive-coordinate engineering to construct 2D-3D nanostructure with trace Pt as efficient bifunctional electrocatalyst for overall water splitting. Science China Materials, 2022, 65, 1217-1224.	3.5	34
59	Enhanced the Hydrogen Evolution Performance by Ruthenium Nanoparticles Doped into Cobalt Phosphide Nanocages. ACS Sustainable Chemistry and Engineering, 2019, 7, 9737-9742.	3.2	33
60	Encapsulated spinel CuXCo3-XO4 in carbon nanotubes as efficient and stable oxygen electrocatalysts. International Journal of Hydrogen Energy, 2019, 44, 11421-11430.	3.8	33
61	Acid promoted Ni/NiO monolithic electrode for overall water splitting in alkaline medium. Science China Materials, 2017, 60, 918-928.	3.5	32
62	Dicyandiamide and iron-tannin framework derived nitrogen-doped carbon nanosheets with encapsulated iron carbide nanoparticles as advanced pH-universal oxygen reduction catalysts. Journal of Colloid and Interface Science, 2018, 530, 196-201.	5.0	32
63	Ru Nanoparticles Decorated on 2D MoO₂ Nanosheets as Efficient and Durable Electrocatalysts for the Hydrogen Evolution Reaction in a Wide pH Range. Journal of Physical Chemistry C, 2020, 124, 10804-10814.	1.5	32
64	Ultrafine Ir nanoparticles decorated on FeP/FeOOH with abundant interfacesviaa facile corrosive approach for alkaline water-splitting. Journal of Materials Chemistry A, 2021, 9, 12074-12079.	5.2	32
65	Highly active bifunctional oxygen electrocatalysts derived from nickelâ€“ or cobaltâ€“phytic acid xerogel for zincâ€“air batteries. Nanoscale, 2018, 10, 15834-15841.	2.8	31
66	N,Sâ€“Codoped hierarchical porous carbon spheres embedded with cobalt nanoparticles as efficient bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. Nanoscale, 2019, 11, 21302-21310.	2.8	31
67	Various Structured Molybdenum-based Nanomaterials as Advanced Anode Materials for Lithium ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 12366-12372.	4.0	29
68	3D Robust Carbon Aerogels Immobilized with Pd₃Pb Nanoparticles for Oxygen Reduction Catalysis. ACS Applied Nano Materials, 2018, 1, 1904-1911.	2.4	29
69	Vanadium doped FeP nanoflower with optimized electronic structure for efficient hydrogen evolution. Journal of Colloid and Interface Science, 2022, 615, 445-455.	5.0	29
70	Various strategies to tune the electrocatalytic performance of molybdenum phosphide supported on reduced graphene oxide for hydrogen evolution reaction. Journal of Colloid and Interface Science, 2019, 536, 638-645.	5.0	28
71	Supramolecular gel assisted synthesis of Co₂P nanosheets as an efficient and stable catalyst for oxygen reduction reaction. New Journal of Chemistry, 2018, 42, 8800-8804.	1.4	27
72	Ultralow content of Pt on Pdâ€“Coâ€“Cu/C ternary nanoparticles with excellent electrocatalytic activity and durability for the oxygen reduction reaction. Nano Energy, 2016, 27, 475-481.	8.2	26

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73	A Metalâ€Free N and Pâ€Codoped Carbon Nanosphere as Bifunctional Electrocatalyst for Rechargeable Zincâ€Air Batteries. ChemElectroChem, 2019, 6, 393-397.	1.7	26
74	Defect-Rich, Mesoporous Cobalt Sulfide Hexagonal Nanosheets as Superior Sulfur Hosts for High-Rate, Long-Cycle Rechargeable Lithiumâ€“Sulfur Batteries. Journal of Physical Chemistry C, 2020, 124, 12259-12268.	1.5	26
75	Synergistically enhanced hydrogen evolution reaction by ruthenium nanoparticles dispersed on N-doped carbon hollow nanospheres. Chemical Communications, 2020, 56, 6802-6805.	2.2	26
76	A general approach for the direct fabrication of metal oxide-based electrocatalysts for efficient bifunctional oxygen electrodes. Sustainable Energy and Fuels, 2017, 1, 823-831.	2.5	24
77	MoS2/CoB with Se doping on carbon cloth to drive overall water-splitting in an alkaline electrolyte. Sustainable Energy and Fuels, 2020, 4, 5036-5041.	2.5	24
78	N, P-doped carbon supported ruthenium doped Rhenium phosphide with porous nanostructure for hydrogen evolution reaction using sustainable energies. Journal of Colloid and Interface Science, 2022, 606, 1874-1881.	5.0	24
79	Tailoring the d-band centers of FeP nanobelt arrays by fluorine doping for enhanced hydrogen evolution at high current density. Fuel, 2022, 316, 123206.	3.4	24
80	Molybdenum carbides embedded on carbon nanotubes for efficient hydrogen evolution reaction. Journal of Electroanalytical Chemistry, 2017, 801, 7-13.	1.9	23
81	Metallic cobalt modified MnOâ€“C nanocrystalline composites as an efficient bifunctional oxygen electrocatalyst. Catalysis Science and Technology, 2018, 8, 480-485.	2.1	23
82	Co/MnO/N-C hybrid derived from N-methyl-D-glucamine as efficient bifunctional oxygen electrocatalysts. Electrochimica Acta, 2018, 281, 486-493.	2.6	23
83	Efficient electrocatalytic conversion of N₂ to NH₃ on NiWO₄ under ambient conditions. Nanoscale, 2020, 12, 1478-1483.	2.8	23
84	Pt skin on Pdâ€“Coâ€“Zn/C ternary nanoparticles with enhanced Pt efficiency toward ORR. Nanoscale, 2016, 8, 14793-14802.	2.8	22
85	Defect Engineering of 2D Materials for Electrochemical Energy Storage. Advanced Materials Interfaces, 2020, 7, 2000494.	1.9	19
86	Heterostructure of RuO₂â€RuP₂/Ru Derived from HMTâ€based Coordination Polymers as Superior pHâ€Universal Electrocatalyst for Hydrogen Evolution Reaction. Small, 2022, 18, e2105168.	5.2	19
87	Pt doping and strong metalâ€“support interaction as a strategy for NiMo-based electrocatalysts to boost the hydrogen evolution reaction in alkaline solution. Journal of Materials Chemistry A, 2022, 10, 15395-15401.	5.2	19
88	Ptâ€Like Oxygen Reduction Activity Induced by Costâ€Effective MnFeO₂/Nâ€Carbon. Chemistry - A European Journal, 2019, 25, 6226-6232.	1.7	18
89	Ru-doped 3D porous Ni3N sphere as efficient Bi-functional electrocatalysts toward urea assisted water-splitting. International Journal of Hydrogen Energy, 2022, 47, 25081-25089.	3.8	18
90	Heteroatom (Nitrogen/Sulfur)-Doped Graphene as an Efficient Electrocatalyst for Oxygen Reduction and Evolution Reactions. Catalysts, 2018, 8, 475.	1.6	16

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91	Ru, B Co-doped hollow structured iron phosphide as highly efficient electrocatalyst toward hydrogen generation in wide pH range. Journal of Materials Chemistry A, 2022, 10, 15155-15160.	5.2	16
92	Effects of ionic liquid pretreatment on pyrolysis characteristics of a high-sulfur bituminous coal. Fuel, 2019, 258, 116134.	3.4	15
93	Porous two-dimensional layerd molybdenum compounds coupled with N-doped carbon based electrocatalysts for hydrogen evolution reaction. Applied Surface Science, 2019, 465, 724-729.	3.1	15
94	Nitrogen Doped Holey Carbon with MoS₂-MoP Nanosheets for Efficient Hydrogen Evolution Reaction in Alkaline Medium. Journal of the Electrochemical Society, 2018, 165, F976-F980.	1.3	13
95	Hierarchical cobalt sulfide ultra-long microtube composed of nanosheets embedded within N-doped carbon as anode material for lithium-ion batteries. Journal of Alloys and Compounds, 2019, 786, 475-480.	2.8	13
96	In-situ transformation to accordion-like core-shell structured metal@metallic hydroxide nanosheet from nanorod morphology for overall water-splitting in alkaline media. Journal of Colloid and Interface Science, 2020, 559, 105-114.	5.0	13
97	In-situ formed N doped bamboo-like carbon nanotube decorated with Feâ€“Niâ€“Cr nanoparticles as efficient electrocatalysts for overall water-splitting. Materials Chemistry and Physics, 2020, 241, 122375.	2.0	13
98	Fe doped Sb nanoparticles supported on heteroatoms co-doped carbon matrix as efficient electrocatalyst for hydrogen evolution reaction in both acid and alkaline media. Journal of the Taiwan Institute of Chemical Engineers, 2020, 110, 51-57.	2.7	13
99	Solvothermally Doping NiS2 Nanoparticles on Carbon with Ferric Ions for Efficient Oxygen Evolution Catalysis. Catalysts, 2019, 9, 458.	1.6	11
100	Recent Progress in Graphdiyne for Electrocatalytic Reactions. ChemElectroChem, 2020, 7, 4843-4852.	1.7	11
101	Selfâ€Assembly/Sacrificial Synthesis of Highly Capacitive Hierarchical Porous Carbon from Longan Pulp Biomass. ChemElectroChem, 2020, 7, 4606-4613.	1.7	11
102	Sulfur, nitrogen co-doped nanocomposite of graphene and carbon nanotube as an efficient bifunctional electrocatalyst for oxygen reduction and evolution reactions. Journal of the Taiwan Institute of Chemical Engineers, 2018, 93, 336-341.	2.7	10
103	Mn_x(PO₄)_y/NPC As a High Performance Bifunctional Electrocatalyst for Oxygen Electrode Reactions. ChemCatChem, 2019, 11, 1222-1227.	1.8	10
104	Nitrogenâ€Doped Hollow Carbon Polyhedrons with Carbon Nanotubes Surface Layers as Effective Sulfur Hosts for Highâ€Rate, Longâ€Lifespan Lithiumâ€“Sulfur Batteries. ChemElectroChem, 2020, 7, 4990-4998.	1.7	10
105	Facile synthesis of hierarchical Nb-Doped Moâ€“Niâ€“S nanospheres as efficient electrocatalyst toward hydrogen generation in alkaline media. International Journal of Hydrogen Energy, 2022, 47, 14414-14421.	3.8	9
106	In situ construction of self-supporting Niâ€“Fe sulfide for high-efficiency oxygen evolution. New Journal of Chemistry, 2022, 46, 8250-8255.	1.4	8
107	Facile Synthesis of Novel V0.13Mo0.87O2.935 Nanowires With High-Rate Supercapacitive Performance. Frontiers in Chemistry, 2019, 7, 595.	1.8	7
108	N,P-Codoped Carbon Layer Coupled with MoP Nanoparticles as an Efficient Electrocatalyst for Hydrogen Evolution Reaction. Materials, 2018, 11, 1316.	1.3	6

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109	An Iron-Based Catalyst with Multiple Active Components Synergetically Improved Electrochemical Performance for Oxygen Reduction Reaction. Catalysts, 2018, 8, 243.	1.6	5
110	Using lithium chloride as a medium to prepare N,P-codoped carbon nanosheets for oxygen reduction and evolution reactions. Inorganic Chemistry Frontiers, 2019, 6, 417-422.	3.0	5
111	Facile Synthesis of MoP-RuP2 with Abundant Interfaces to Boost Hydrogen Evolution Reactions in Alkaline Media. Nanomaterials, 2021, 11, 2347.	1.9	4
112	Correction to Porous Structured Niâ€“Feâ€“P Nanocubes Derived from a Prussian Blue Analogue as an Electrocatalyst for Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2018, 10, 3152-3152.	4.0	3
113	Nitrogen and iron codoped porous carbon polyhedra for effectively confining polysulfides and efficiently catalyzing their conversion in lithiumâ€“sulfur batteries. Sustainable Energy and Fuels, 2020, 4, 5215-5222.	2.5	3
114	Electrochemical Energy Storage: Defect Engineering of 2D Materials for Electrochemical Energy Storage (Adv. Mater. Interfaces 15/2020). Advanced Materials Interfaces, 2020, 7, 2070087.	1.9	2