

Shuai Chen

List of Publications by Year in descending order

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108
papers

7,428
citations

47409

49
h-index

64407

83
g-index

110
all docs

110
docs citations

110
times ranked

11722
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced oxygen reduction reaction for Zn-air battery at defective carbon fibers derived from seaweed polysaccharide. <i>Applied Catalysis B: Environmental</i> , 2022, 301, 120785.	10.8	45
2	Selenite capture by MIL-101 (Fe) through Fe O Se bonds at free coordination Fe sites. <i>Journal of Hazardous Materials</i> , 2022, 424, 127715.	6.5	17
3	Synthesis and electrochemical studies of WO ₃ -based nanomaterials for environmental, energy and gas sensing applications. <i>Electrochemical Science Advances</i> , 2022, 2, e2100146.	1.2	6
4	Biochar aerogel decorated with thiophene S manipulated 5-membered rings boosts nitrogen fixation. <i>Applied Catalysis B: Environmental</i> , 2022, 313, 121425.	10.8	5
5	Efficient WO ₃ nanoplates photoanode based on bidentate hydrogen bonds and thermal reduction of ethylene glycol. <i>Chemical Engineering Journal</i> , 2021, 404, 127089.	6.6	11
6	Coupling of iron phthalocyanine at carbon defect site via π - π stacking for enhanced oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2021, 280, 119437.	10.8	128
7	Dramatically enhanced solar-driven water splitting of BiVO ₄ photoanode via strengthening hole transfer and light harvesting by co-modification of CQDs and ultrathin $\text{I}^2\text{-FeOOH}$ layers. <i>Chemical Engineering Journal</i> , 2021, 403, 126350.	6.6	82
8	Efficient photoelectrocatalytic degradation of tylosin on TiO ₂ nanotube arrays with tunable phosphorus dopants. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104742.	3.3	23
9	Efficient ammonia removal and toxic chlorate control by using BiVO ₄ /WO ₃ heterojunction photoanode in a self-driven PEC-chlorine system. <i>Journal of Hazardous Materials</i> , 2021, 402, 123725.	6.5	40
10	Pulsed electrocatalysis enables an efficient 2-electron oxygen reduction reaction for H ₂ O ₂ production. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15948-15954.	5.2	25
11	Effect of oxygen concentration and distribution on holes transfer and photoelectrocatalytic properties in hematite. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 7309-7319.	3.8	5
12	Fe ³⁺ -mediated coal-assisted water electrolysis for hydrogen production: Roles of mineral matter and oxygen-containing functional groups in coal. <i>Energy</i> , 2021, 220, 119677.	4.5	19
13	Hollow and porous NiCo ₂ O ₄ nanospheres for enhanced methanol oxidation reaction and oxygen reduction reaction by oxygen vacancies engineering. <i>Applied Catalysis B: Environmental</i> , 2021, 291, 120065.	10.8	114
14	The design of high performance photoanode of CQDs/TiO ₂ /WO ₃ based on DFT alignment of lattice parameter and energy band, and charge distribution. <i>Journal of Colloid and Interface Science</i> , 2021, 600, 828-837.	5.0	27
15	Coal-Assisted Water Electrolysis for Hydrogen Production: Evolution of Carbon Structure in Different-Rank Coal. <i>Energy & Fuels</i> , 2021, 35, 3512-3520.	2.5	10
16	Efficient denitrification and removal of natural organic matter, emerging pollutants simultaneously for RO concentrate based on photoelectrocatalytic radical reaction. <i>Separation and Purification Technology</i> , 2020, 234, 116032.	3.9	19
17	Ultrathin nickel phosphide nanosheet aerogel electrocatalysts derived from Ni-alginate for hydrogen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2020, 817, 152727.	2.8	9
18	Efficient degradation of N-containing organic wastewater via chlorine oxide radical generated by a photoelectrochemical system. <i>Chemical Engineering Journal</i> , 2020, 392, 123695.	6.6	35

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19	Tungsten sulfide co-catalytic radical chain-reaction for efficient organics degradation and electricity generation. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118471.	10.8	7
20	Simultaneous Ni nanoparticles decoration and Ni doping of CdS nanorods for synergistically promoting photocatalytic H ₂ evolution. <i>Applied Surface Science</i> , 2020, 508, 144869.	3.1	29
21	Exhaustive denitrification via chlorine oxide radical reactions for urea based on a novel photoelectrochemical cell. <i>Water Research</i> , 2020, 170, 115357.	5.3	44
22	Multistep Surface Trap State Finishing Based on in Situ One-Step MOF Modification over Hematite for Dramatically Enhanced Solar Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33638-33646.	4.0	5
23	Efficient SO ₂ Removal and Highly Synergistic H ₂ O ₂ Production Based on a Novel Dual-Function Photoelectrocatalytic System. <i>Environmental Science & Technology</i> , 2020, 54, 11515-11525.	4.6	25
24	Surface metal valence state regulating on hematite to weaken dependence of charge transport to catalyst loading. <i>Nano Energy</i> , 2020, 78, 105396.	8.2	5
25	Genuine Active Species Generated from Fe ₃ N Nanotube by Synergistic CoNi Doping for Boosted Oxygen Evolution Catalysis. <i>Small</i> , 2020, 16, e2003824.	5.2	31
26	Enhanced O ₂ ^{•-} and HO [•] via in situ generating H ₂ O ₂ at activated graphite felt cathode for efficient photocatalytic fuel cell. <i>Chemical Engineering Journal</i> , 2020, 399, 125839.	6.6	22
27	The synergic generation of CO ₃ ^{•-} and O ₂ ^{•-} radicals in a novel photocatalytic fuel cell for efficient oxidation of carbonate-containing wastewater and simultaneous electricity production. <i>Applied Catalysis B: Environmental</i> , 2020, 277, 119227.	10.8	11
28	Nitrogen and Sulfur Vacancies in Carbon Shell to Tune Charge Distribution of Co ₆ Ni ₃ S ₈ Core and Boost Sodium Storage. <i>Advanced Energy Materials</i> , 2020, 10, 1904147.	10.2	80
29	Patterning of BiVO ₄ Surfaces and Monitoring of Localized Catalytic Activity Using Scanning Photoelectrochemical Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 18065-18073.	4.0	11
30	Unique hollow Ni@Fe@MoS ₂ nanocubes with boosted electrocatalytic activity for N ₂ reduction to NH ₃ . <i>Journal of Materials Chemistry A</i> , 2020, 8, 7339-7349.	5.2	60
31	Highly boosted gas diffusion for enhanced electrocatalytic reduction of N ₂ to NH ₃ on 3D hollow Co@MoS ₂ nanostructures. <i>Nanoscale</i> , 2020, 12, 6029-6036.	2.8	30
32	Efficient organic pollutants conversion and electricity generation for carbonate-containing wastewater based on carbonate radical reactions initiated by BiVO ₄ -Au/PVC system. <i>Journal of Hazardous Materials</i> , 2020, 389, 122140.	6.5	14
33	Carbon quantum dots modified anatase/rutile TiO ₂ photoanode with dramatically enhanced photoelectrochemical performance. <i>Applied Catalysis B: Environmental</i> , 2020, 269, 118776.	10.8	132
34	Effect of Oxygen@Iron Composition on Charge Transport and Interface Reaction in Hematite. <i>ACS Catalysis</i> , 2020, 10, 2413-2418.	5.5	14
35	Bird-nest structured ZnO/TiO ₂ as a direct Z-scheme photoanode with enhanced light harvesting and carriers kinetics for highly efficient and stable photoelectrochemical water splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 267, 118599.	10.8	116
36	Electrochemical Reduction of Carbon Dioxide on Au Nanoparticles: An in Situ FTIR Study. <i>Journal of Physical Chemistry C</i> , 2019, 123, 23898-23906.	1.5	46

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37	Mechanistic insight into high-efficiency sodium storage based on N/O/P-functionalized ultrathin carbon nanosheet. <i>Journal of Power Sources</i> , 2019, 442, 227184.	4.0	18
38	Controllable synthesis of CoN_3 catalysts derived from Co/Zn-ZIF-67 for electrocatalytic oxygen reduction in acidic electrolytes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21884-21891.	5.2	67
39	Seaweed-derived synthesis of $\text{Na}_{3.12}\text{Fe}_{2.44}(\text{P}_2\text{O}_7)_2/\text{r-GO}$ aerogels as air stable cathode materials for sodium-ion batteries. <i>Chemical Engineering Journal</i> , 2019, 365, 325-333.	6.6	24
40	Sulfur vacancy-rich N-doped MoS_2 nanoflowers for highly boosting electrocatalytic N_2 fixation to NH_3 under ambient conditions. <i>Chemical Communications</i> , 2019, 55, 7386-7389.	2.2	111
41	Extremely Efficient Decomposition of Ammonia N to N_2 Using ClO_4^- from Reactions of HO_2^- and HOCl Generated <i>in Situ</i> on a Novel Bifacial Photoelectroanode. <i>Environmental Science & Technology</i> , 2019, 53, 6945-6953.	4.6	84
42	3D Sulfur and Nitrogen Codoped Carbon Nanofiber Aerogels with Optimized Electronic Structure and Enlarged Interlayer Spacing Boost Potassium-Ion Storage. <i>Small</i> , 2019, 15, e1900816.	5.2	122
43	Fe-alginate biomass-derived FeS/3D interconnected carbon nanofiber aerogels as anodes for high performance sodium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2019, 795, 54-59.	2.8	18
44	Generating Oxygen Vacancies in MnO Hexagonal Sheets for Ultralong Life Lithium Storage with High Capacity. <i>ACS Nano</i> , 2019, 13, 2062-2071.	7.3	65
45	Ultrafine FeSe nanoparticles embedded into 3D carbon nanofiber aerogels with FeSe/Carbon interface for efficient and long-life sodium storage. <i>Carbon</i> , 2019, 143, 106-115.	5.4	78
46	Single-crystalline $(\text{Fe}_x\text{Ni}_{1-x})_2\text{P}$ nanosheets with dominant $\langle 101 \rangle$ face for efficient sodium storage. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1111-1120.	8.2	68
47	The effect and mechanism of organic pollutants oxidation and chemical energy conversion for neutral wastewater via strengthening reactive oxygen species. <i>Science of the Total Environment</i> , 2019, 651, 1226-1235.	3.9	32
48	High-efficient energy recovery from organics degradation for neutral wastewater treatment based on radicals catalytic reaction of $\text{Fe}^{2+}/\text{Fe}^{3+}$ -EDTA complexes. <i>Chemosphere</i> , 2018, 201, 59-65.	4.2	24
49	Porous CoP nanostructure electrocatalyst derived from DUT-58 for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13904-13910.	3.8	32
50	Nanoscale engineering $\text{MoP}/\text{Fe}_2\text{P}/\text{RGO}$ toward efficient electrocatalyst for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13939-13945.	3.8	33
51	Highly Porous FeS/Carbon Fibers Derived from Fe-Carrageenan Biomass: High-capacity and Durable Anodes for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 17175-17182.	4.0	114
52	Generating lithium vacancies through delithiation of $\text{Li}(\text{Ni}_x\text{Co}_y\text{Mn}_z)\text{O}_2$ towards bifunctional electrocatalysts for rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , 2018, 15, 202-208.	9.5	21
53	Fabrication and electrochemical study of ruthenium-ruthenium oxide/activated carbon nanocomposites for enhanced energy storage. <i>Journal of Alloys and Compounds</i> , 2018, 751, 138-147.	2.8	27
54	Nanoconfinement of red phosphorus nanoparticles in seaweed-derived hierarchical porous carbonaceous fibers for enhanced lithium ion storage. <i>Chemical Engineering Journal</i> , 2018, 345, 604-610.	6.6	50

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55	Cellulose nanocrystals (CNC) derived Mo ₂ C@sulfur-doped carbon aerogels for hydrogen evolution. International Journal of Hydrogen Energy, 2018, 43, 13720-13726.	3.8	50
56	Exhaustive Conversion of Inorganic Nitrogen to Nitrogen Gas Based on a Photoelectro-Chlorine Cycle Reaction and a Highly Selective Nitrogen Gas Generation Cathode. Environmental Science & Technology, 2018, 52, 1413-1420.	4.6	87
57	Electronic Structure Tuning in Ni ₃ /FeN/r-GO Aerogel toward Bifunctional Electrocatalyst for Overall Water Splitting. ACS Nano, 2018, 12, 245-253.	7.3	462
58	Boosting hydrogen evolution <i>via</i> optimized hydrogen adsorption at the interface of CoP ₃ and Ni ₂ P. Journal of Materials Chemistry A, 2018, 6, 5560-5565.	5.2	107
59	Triggering superior sodium ion adsorption on (200) facet of mesoporous WO ₃ nanosheet arrays for enhanced supercapacitance. Chemical Engineering Journal, 2018, 345, 165-173.	6.6	39
60	BiVO ₄ Photoanode with Exposed (040) Facets for Enhanced Photoelectrochemical Performance. Nano-Micro Letters, 2018, 10, 11.	14.4	58
61	DUT ⁵⁸ (Co) Derived Synthesis of Co Clusters as Efficient Oxygen Reduction Electrocatalyst for Zinc-Air Battery. Global Challenges, 2018, 2, 1700086.	1.8	13
62	Direct Interfacial Growth of MnO ₂ Nanostructure on Hierarchically Porous Carbon for High-Performance Asymmetric Supercapacitors. ACS Sustainable Chemistry and Engineering, 2018, 6, 633-641.	3.2	113
63	Significant Enhancement of the Photoelectrochemical Activity of CuWO ₄ by using a Cobalt Phosphate Nanoscale Thin Film. ChemElectroChem, 2018, 5, 523-530.	1.7	25
64	Boosting Sodium-Ion Storage by Encapsulating NiS (CoS) Hollow Nanoparticles into Carbonaceous Fibers. ACS Applied Materials & Interfaces, 2018, 10, 40531-40539.	4.0	62
65	Sub-1.5 nm Ultrathin CoP Nanosheet Aerogel: Efficient Electrocatalyst for Hydrogen Evolution Reaction at All pH Values. Small, 2018, 14, e1802824.	5.2	99
66	“Floating” cathode for efficient H ₂ O ₂ electrogeneration applied to degradation of ibuprofen as a model pollutant. Electrochemistry Communications, 2018, 96, 37-41.	2.3	42
67	Serial hole transfer layers for a BiVO ₄ photoanode with enhanced photoelectrochemical water splitting. Nanoscale, 2018, 10, 18378-18386.	2.8	44
68	Electron blocking and hole extraction by a dual-function layer for hematite with enhanced photoelectrocatalytic performance. Applied Catalysis B: Environmental, 2018, 237, 175-184.	10.8	23
69	Efficient bacterial disinfection based on an integrated nanoporous titanium dioxide and ruthenium oxide bifunctional approach. Journal of Hazardous Materials, 2018, 356, 73-81.	6.5	17
70	Turning gelidium amansii residue into nitrogen-doped carbon nanofiber aerogel for enhanced multiple energy storage. Carbon, 2018, 137, 31-40.	5.4	48
71	Alginate/r-GO assisted synthesis of ultrathin LiFePO ₄ nanosheets with oriented (010) facet and ultralow antisite defect. Chemical Engineering Journal, 2018, 351, 340-347.	6.6	37
72	Selective Capture of Toxic Selenite Anions by Bismuth-Based Metal-Organic Frameworks. Angewandte Chemie - International Edition, 2018, 57, 13197-13201.	7.2	122

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73	Total organic carbon and total nitrogen removal and simultaneous electricity generation for nitrogen-containing wastewater based on the catalytic reactions of hydroxyl and chlorine radicals. <i>Applied Catalysis B: Environmental</i> , 2018, 238, 168-176.	10.8	58
74	Surface modification of hematite photoanode by NiFe layered double hydroxide for boosting photoelectrocatalytic water oxidation. <i>Journal of Alloys and Compounds</i> , 2018, 764, 341-346.	2.8	38
75	SnO ₂ @PANI Core-Shell Nanorod Arrays on 3D Graphite Foam: A High-Performance Integrated Electrode for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 9620-9629.	4.0	78
76	Nanoscale engineering of nitrogen-doped carbon nanofiber aerogels for enhanced lithium ion storage. <i>Journal of Materials Chemistry A</i> , 2017, 5, 8247-8254.	5.2	114
77	Highly stable supercapacitors with MOF-derived Co ₉ S ₈ /carbon electrodes for high rate electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12453-12461.	5.2	180
78	Tuning the Shell Number of Multishelled Metal Oxide Hollow Fibers for Optimized Lithium-Ion Storage. <i>ACS Nano</i> , 2017, 11, 6186-6193.	7.3	127
79	Porous TiO ₂ Nanotubes with Spatially Separated Platinum and CoO _x Cocatalysts Produced by Atomic Layer Deposition for Photocatalytic Hydrogen Production. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 816-820.	7.2	293
80	Dramatic enhancement of organics degradation and electricity generation via strengthening superoxide radical by using a novel 3D AQS/PPy-GF cathode. <i>Water Research</i> , 2017, 125, 259-269.	5.3	53
81	SnO ₂ /SnS ₂ nanotubes for flexible room-temperature NH ₃ gas sensors. <i>RSC Advances</i> , 2017, 7, 52503-52509.	1.7	98
82	Toward Aerogel Electrodes of Superior Rate Performance in Supercapacitors through Engineered Hollow Nanoparticles of NiCo ₂ O ₄ . <i>Advanced Science</i> , 2017, 4, 1700345.	5.6	45
83	Preparation of hematite with an ultrathin iron titanate layer via an in situ reaction and its stable, long-lived, and excellent photoelectrochemical performance. <i>Applied Catalysis B: Environmental</i> , 2017, 218, 690-699.	10.8	21
84	Highly Efficient Gas Sensor Using a Hollow SnO ₂ Microfiber for Triethylamine Detection. <i>ACS Sensors</i> , 2017, 2, 897-902.	4.0	238
85	Enhanced organic pollutants degradation and electricity production simultaneously via strengthening the radicals reaction in a novel Fenton-photocatalytic fuel cell system. <i>Water Research</i> , 2017, 108, 293-300.	5.3	84
86	Ultrathin Coating of Confined Pt Nanocatalysts by Atomic Layer Deposition for Enhanced Catalytic Performance in Hydrogenation Reactions. <i>Chemistry - A European Journal</i> , 2016, 22, 8438-8443.	1.7	31
87	Facile Synthesis of Mesocrystalline SnO ₂ Nanorods on Reduced Graphene Oxide Sheets: An Appealing Multifunctional Affinity Probe for Sequential Enrichment of Endogenous Peptides and Phosphopeptides. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 35099-35105.	4.0	21
88	Suppressing Fe ²⁺ Li Antisite Defects in LiFePO ₄ /Carbon Hybrid Microtube to Enhance the Lithium Ion Storage. <i>Advanced Energy Materials</i> , 2016, 6, 1601549.	10.2	109
89	Tailoring Pt-Fe ₂ O ₃ Interfaces for Selective Reductive Coupling Reaction To Synthesize Imine. <i>ACS Catalysis</i> , 2016, 6, 6560-6566.	5.5	64
90	Proliferate Green Tide as Sustainable Source for Carbonaceous Aerogels with Hierarchical Pore to Achieve Multiple Energy Storage. <i>Advanced Functional Materials</i> , 2016, 26, 8487-8495.	7.8	169

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91	Mesoporous NiCo ₂ O ₄ Nanoplates on Three-Dimensional Graphene Foam as an Efficient Electrocatalyst for the Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2016, 8, 28274-28282.	4.0	100
92	Nanostructured materials for water splitting - state of the art and future needs: A mini-review. Electrochemistry Communications, 2016, 63, 10-17.	2.3	126
93	Robust Fe ₂ O ₃ nanorod arrays with optimized interstices as high-performance 3D anodes for high-rate lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 13377-13383.	5.2	46
94	Self-supported Li ₄ Ti ₅ O ₁₂ nanosheet arrays for lithium ion batteries with excellent rate capability and ultralong cycle life. Energy and Environmental Science, 2014, 7, 1924.	15.6	252
95	Branched CNT@SnO ₂ nanorods@carbon hierarchical heterostructures for lithium ion batteries with high reversibility and rate capability. Journal of Materials Chemistry A, 2014, 2, 15582-15589.	5.2	83
96	Kinetics-controlled growth of aligned mesocrystalline SnO ₂ nanorod arrays for lithium-ion batteries with superior rate performance. Nano Research, 2013, 6, 243-252.	5.8	93
97	Functionalization of TiO ₂ nanotubes with palladium nanoparticles for hydrogen sorption and storage. International Journal of Hydrogen Energy, 2013, 38, 14002-14009.	3.8	24
98	Bioinspired Oxidative Aromatizations: One-Pot Syntheses of 2-Substituted Benzothiazoles and Pyridines by Aerobic Organocatalysis. ACS Sustainable Chemistry and Engineering, 2013, 1, 1045-1051.	3.2	42
99	Electrocatalytic Activity of PtAu Nanoparticles Deposited on TiO ₂ Nanotubes. Journal of Physical Chemistry C, 2012, 116, 3298-3304.	1.5	52
100	Aerobic Organocatalytic Oxidation of Aryl Aldehydes: Flavin Catalyst Turnover by Hantzsch's Ester. Organic Letters, 2012, 14, 5150-5153.	2.4	73
101	Self-cleaning, broadband and quasi-omnidirectional antireflective structures based on mesocrystalline rutile TiO ₂ nanorod arrays. Energy and Environmental Science, 2012, 5, 7575.	15.6	122
102	Organocatalytic Dakin Oxidation by Nucleophilic Flavin Catalysts. Organic Letters, 2012, 14, 2806-2809.	2.4	72
103	Nanoporous Anatase TiO ₂ Mesocrystals: Additive-Free Synthesis, Remarkable Crystalline-Phase Stability, and Improved Lithium Insertion Behavior. Journal of the American Chemical Society, 2011, 133, 933-940.	6.6	598
104	Significant enhancement of the photoelectrochemical activity of TiO ₂ nanotubes. Electrochemistry Communications, 2011, 13, 1186-1189.	2.3	17
105	Determination of Chemical Oxygen Demand Based on Novel Photoelectrochemical Bifunctional Electrodes. Electroanalysis, 2011, 23, 1267-1275.	1.5	25
106	Synthesis and electrochemical study of TiO ₂ -supported PdAu nanoparticles. Electrochemistry Communications, 2011, 13, 370-373.	2.3	29
107	Synthesis and electrochemical study of nanoporous Pd-Ag alloys for hydrogen sorption. Electrochimica Acta, 2010, 56, 61-67.	2.6	31
108	High-Performance Pd-Based Hydrogen Spillover Catalysts for Hydrogen Storage. Journal of Physical Chemistry C, 2010, 114, 19875-19882.	1.5	84