Fengtao Fan

List of Publications by Year
in descending order

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118	8,094	38660 50	51492 86
papers	citations	h-index	g-index

127	127	127	7949
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhancing charge separation on high symmetry SrTiO₃exposed with anisotropic facets for photocatalytic water splitting. Energy and Environmental Science, 2016, 9, 2463-2469.	15.6	372
2	Imaging photogenerated charge carriers on surfaces and interfaces of photocatalysts with surface photovoltage microscopy. Chemical Society Reviews, 2018, 47, 8238-8262.	18.7	343
3	Positioning the Water Oxidation Reaction Sites in Plasmonic Photocatalysts. Journal of the American Chemical Society, 2017, 139, 11771-11778.	6.6	311
4	Direct Imaging of Highly Anisotropic Photogenerated Charge Separations on Different Facets of a Single BiVO₄ Photocatalyst. Angewandte Chemie - International Edition, 2015, 54, 9111-9114.	7.2	284
5	Charge separation via asymmetric illumination in photocatalytic Cu2O particles. Nature Energy, 2018, 3, 655-663.	19.8	275
6	Heteroatom Dopants Promote Twoâ€Electron O₂ Reduction for Photocatalytic Production of H₂O₂ on Polymeric Carbon Nitride. Angewandte Chemie - International Edition, 2020, 59, 16209-16217.	7.2	270
7	Visible-light-driven coproduction of diesel precursors and hydrogen from lignocellulose-derived methylfurans. Nature Energy, 2019, 4, 575-584.	19.8	268
8	Sustainable Synthesis of Zeolites without Addition of Both Organotemplates and Solvents. Journal of the American Chemical Society, 2014, 136, 4019-4025.	6.6	233
9	Mimicking the Key Functions of Photosystem II in Artificial Photosynthesis for Photoelectrocatalytic Water Splitting. Journal of the American Chemical Society, 2018, 140, 3250-3256.	6.6	224
10	Construction and Nanoscale Detection of Interfacial Charge Transfer of Elegant Z-Scheme WO₃/Au/In₂S₃ Nanowire Arrays. Nano Letters, 2016, 16, 5547-5552.	4.5	217
11	Directly Probing Charge Separation at Interface of TiO₂ Phase Junction. Journal of Physical Chemistry Letters, 2017, 8, 1419-1423.	2.1	180
12	A Hydrogen Farm Strategy for Scalable Solar Hydrogen Production with Particulate Photocatalysts. Angewandte Chemie - International Edition, 2020, 59, 9653-9658.	7.2	167
13	Visualizing the Nano Cocatalyst Aligned Electric Fields on Single Photocatalyst Particles. Nano Letters, 2017, 17, 6735-6741.	4.5	164
14	Unassisted Photoelectrochemical Cell with Multimediator Modulation for Solar Water Splitting Exceeding 4% Solar-to-Hydrogen Efficiency. Journal of the American Chemical Society, 2021, 143, 12499-12508.	6.6	157
15	UV Raman Spectroscopic Studies on Active Sites and Synthesis Mechanisms of Transition Metal-Containing Microporous and Mesoporous Materials. Accounts of Chemical Research, 2010, 43, 378-387.	7.6	140
16	Highly Active and Recyclable Snâ€MWW Zeolite Catalyst for Sugar Conversion to Methyl Lactate and Lactic Acid. ChemSusChem, 2013, 6, 1352-1356.	3.6	140
17	A Thorough Investigation of the Active Titanium Species in TSâ€1 Zeolite by In Situ UV Resonance Raman Spectroscopy. Chemistry - A European Journal, 2012, 18, 13854-13860.	1.7	137
18	Promoting Photocatalytic H₂ Evolution on Organicâ€“Inorganic Hybrid Perovskite Nanocrystals by Simultaneous Dual-Charge Transportation Modulation. ACS Energy Letters, 2019, 4, 40-47.	8.8	127

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19	Crystallographic-Orientation-Dependent Charge Separation of BiVO₄ for Solar Water Oxidation. ACS Energy Letters, 2019, 4, 825-831.	8.8	126
20	Interfacial Charge Modulation: An Efficient Strategy for Boosting Spatial Charge Separation on Semiconductor Photocatalysts. Advanced Energy Materials, 2019, 9, 1803951.	10.2	125
21	Visually resolving the direct Z-scheme heterojunction in CdS@ZnIn2S4 hollow cubes for photocatalytic evolution of H2 and H2O2 from pure water. Applied Catalysis B: Environmental, 2021, 293, 120213.	10.8	123
22	Manipulating the Interfacial Energetics of n-type Silicon Photoanode for Efficient Water Oxidation. Journal of the American Chemical Society, 2016, 138, 13664-13672.	6.6	121
23	Internalâ€Fieldâ€Enhanced Charge Separation in a Singleâ€Domain Ferroelectric PbTiO₃ Photocatalyst. Advanced Materials, 2020, 32, e1906513.	11.1	121
24	Lattice distortion induced internal electric field in TiO2 photoelectrode for efficient charge separation and transfer. Nature Communications, 2020, 11, 2129.	5.8	108
25	Construction of unique six-coordinated titanium species with an organic amine ligand in titanosilicate and their unprecedented high efficiency for alkene epoxidation. Chemical Communications, 2015, 51, 9010-9013.	2.2	107
26	UV Raman spectroscopic study on the synthesis mechanism and assembly of molecular sieves. Chemical Society Reviews, 2010, 39, 4794.	18.7	99
27	Charge Separation by Creating Band Bending in Metalâ€“Organic Frameworks for Improved Photocatalytic Hydrogen Evolution. Angewandte Chemie - International Edition, 2022, 61, e202204108.	7.2	90
28	From Molecular Fragments to Crystals: A UV Raman Spectroscopic Study on the Mechanism of Feâ€ZSMâ€5 Synthesis. Chemistry - A European Journal, 2009, 15, 3268-3276.	1.7	89
29	Surfaceâ€Polarityâ€Induced Spatial Charge Separation Boosts Photocatalytic Overall Water Splitting on GaN Nanorod Arrays. Angewandte Chemie - International Edition, 2020, 59, 935-942.	7.2	89
30	Efficient Plasmonic Au/CdSe Nanodumbbell for Photoelectrochemical Hydrogen Generation beyond Visible Region. Advanced Energy Materials, 2019, 9, 1803889.	10.2	85
31	SnS₂ Nanosheets/Hâ€TiO₂ Nanotube Arrays as a Typeâ€…II Heterojunctioned Photoanode for Photoelectrochemical Water Splitting. ChemSusChem, 2019, 12, 961-967.	3.6	78
32	The Polarization Effect in Surfaceâ€Plasmonâ€Induced Photocatalysis on Au/TiO₂ Nanoparticles. Angewandte Chemie - International Edition, 2020, 59, 18218-18223.	7.2	78
33	Synergetic Effect of Dual Coâ€catalysts on the Activity of pâ€Type Cu₂O Crystals with Anisotropic Facets. Chemistry - A European Journal, 2015, 21, 14337-14341.	1.7	77
34	In Situ UV Raman Spectroscopic Studies on the Synthesis Mechanism of Zeolite X. Chemistry - A European Journal, 2008, 14, 5125-5129.	1.7	75
35	In Situ UV Raman Spectroscopic Study on the Synthesis Mechanism of AlPOâ€5. Angewandte Chemie - International Edition, 2009, 48, 8743-8747.	7.2	72
36	²⁹Si NMR and UVâ^'Raman Investigation of Initial Oligomerization Reaction Pathways in Acid-Catalyzed Silica Solâ^'Gel Chemistry. Journal of Physical Chemistry C, 2011, 115, 3562-3571.	1.5	72

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37	Effect of Aluminum on the Nature of the Iron Species in Fe-SBA-15. Journal of Physical Chemistry B, 2006, 110, 26114-26121.	1.2	69
38	An artificial photosynthetic system containing an inorganic semiconductor and a molecular catalyst for photocatalytic water oxidation. Journal of Catalysis, 2016, 338, 168-173.	3.1	66
39	Framework Fe Ions in Fe-ZSM-5 Zeolite Studied by UV Resonance Raman Spectroscopy and Density Functional Theory Calculations. Journal of Physical Chemistry C, 2008, 112, 16036-16041.	1.5	64
40	Investigating the Coke Formation Mechanism of H-ZSM-5 during Methanol Dehydration Using Operando UVâ€“Raman Spectroscopy. ACS Catalysis, 2018, 8, 9207-9215.	5.5	64
41	Giant Defect-Induced Effects on Nanoscale Charge Separation in Semiconductor Photocatalysts. Nano Letters, 2019, 19, 426-432.	4.5	63
42	CoO_x nanoparticle anchored on sulfonated-graphite as efficient water oxidation catalyst. Chemical Science, 2017, 8, 6111-6116.	3.7	59
43	Heteroatom Dopants Promote Twoâ€Electron O₂ Reduction for Photocatalytic Production of H₂O₂ on Polymeric Carbon Nitride. Angewandte Chemie, 2020, 132, 16343-16351.	1.6	59
44	Mesoporous ferrosilicates with high content of isolated iron species synthesized in mild buffer solution and their catalytic application. Microporous and Mesoporous Materials, 2008, 113, 231-239.	2.2	58
45	A highly reversible zinc deposition for flow batteries regulated by critical concentration induced nucleation. Energy and Environmental Science, 2021, 14, 4077-4084.	15.6	58
46	Anchoring of black phosphorus quantum dots onto WO₃ nanowires to boost photocatalytic CO₂ conversion into solar fuels. Chemical Communications, 2020, 56, 7777-7780.	2.2	57
47	UVâ€“Raman and NMR Spectroscopic Studies on the Crystallization of Zeoliteâ€…A and a New Synthetic Route. Chemistry - A European Journal, 2011, 17, 6162-6169.	1.7	56
48	Finding the â€œMissing Componentsâ€• during the Synthesis of TS-1 Zeolite by UV Resonance Raman Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 2844-2848.	1.5	56
49	Selective reduction of CO2 to CO under visible light by controlling coordination structures of CeOx-S/ZnIn2S4 hybrid catalysts. Applied Catalysis B: Environmental, 2019, 245, 262-270.	10.8	53
50	Site Sensitivity of Interfacial Charge Transfer and Photocatalytic Efficiency in Photocatalysis: Methanol Oxidation on Anatase TiO₂ Nanocrystals. Angewandte Chemie - International Edition, 2021, 60, 6160-6169.	7.2	52
51	Boosting photocatalytic water oxidation by surface plasmon resonance of AgxAu1â^'x alloy nanoparticles. Nano Energy, 2021, 87, 106189.	8.2	52
52	Advanced space- and time-resolved techniques for photocatalyst studies. Chemical Communications, 2020, 56, 1007-1021.	2.2	50
53	Achieving overall water splitting on plasmon-based solid Z-scheme photocatalysts free of redox mediators. Journal of Catalysis, 2017, 354, 250-257.	3.1	48
54	Mechanistic Understanding of Efficient Photocatalytic H₂ Evolution on Twoâ€Dimensional Layered Lead Iodide Hybrid Perovskites. Angewandte Chemie - International Edition, 2021, 60, 7376-7381.	7.2	48

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55	Nanospatial Charge Modulation of Monodispersed Polymeric Microsphere Photocatalysts for Exceptional Hydrogen Peroxide Production. Small, 2021, 17, e2103224.	5.2	48
56	Molecular engineering of microporous crystals: (III) The influence of water content on the crystallization of microporous aluminophosphate AlPO4-11. Microporous and Mesoporous Materials, 2012, 147, 212-221.	2.2	47
57	Unravelling charge separation via surface built-in electric fields within single particulate photocatalysts. Faraday Discussions, 2017, 198, 473-479.	1.6	45
58	Unraveling Chargeâ€Separation Mechanisms in Photocatalyst Particles by Spatially Resolved Surface Photovoltage Techniques. Angewandte Chemie - International Edition, 2022, 61, .	7.2	44
59	Selective production of phase-separable product from a mixture of biomass-derived aqueous oxygenates. Nature Communications, 2018, 9, 5183.	5.8	42
60	Rational Design of Dotâ€onâ€Rod Nanoâ€Heterostructure for Photocatalytic CO₂ Reduction: Pivotal Role of Hole Transfer and Utilization. Advanced Materials, 2022, 34, e2106662.	11.1	42
61	UV Raman Spectroscopic Characterization of Catalysts and Catalytic Active Sites. Catalysis Letters, 2015, 145, 468-481.	1.4	40
62	Bridging surface states and currentâ€“potential response over hematite-based photoelectrochemical water oxidation. RSC Advances, 2016, 6, 85582-85586.	1.7	39
63	Influence of extra-framework Al on the structure of the active iron sites in Fe/ZSM-35. Journal of Catalysis, 2013, 300, 251-259.	3.1	35
64	Ultrathin Cobalt Oxide Interlayer Facilitated Hole Storage for Sustained Water Oxidation over Composited Tantalum Nitride Photoanodes. ACS Catalysis, 2021, 11, 12736-12744.	5.5	35
65	Effect of Facetâ€Selective Assembly of Cocatalyst on BiVO₄ Photoanode for Solar Water Oxidation. ChemCatChem, 2019, 11, 3763-3769.	1.8	34
66	Interfacial Modulation with Aluminum Oxide for Efficient Plasmonâ€Induced Water Oxidation. Advanced Functional Materials, 2021, 31, 2005688.	7.8	33
67	Effect of the Nature and Location of Copper Species on the Catalytic Nitric Oxide Selective Catalytic Reduction Performance of the Copper/SSZâ€13 Zeolite. ChemCatChem, 2014, 6, 634-639.	1.8	30
68	Probing of coupling effect induced plasmonic charge accumulation for water oxidation. National Science Review, 2021, 8, nwaa151.	4.6	30
69	Holeâ€Storage Enhanced aâ€Si Photocathodes for Efficient Hydrogen Production. Angewandte Chemie - International Edition, 2021, 60, 11966-11972.	7.2	29
70	Oxygen activation on Ba-containing perovskite materials. Science Advances, 2022, 8, eabn4072.	4.7	29
71	Unique homoâ€“heterojunction synergistic system consisting of stacked BiOCl nanoplate/Znâ€“Cr layered double hydroxide nanosheets promoting photocatalytic conversion of CO₂ into solar fuels. Chemical Communications, 2018, 54, 5126-5129.	2.2	27
72	A Hydrogen Farm Strategy for Scalable Solar Hydrogen Production with Particulate Photocatalysts. Angewandte Chemie, 2020, 132, 9740-9745.	1.6	27

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73	Light-driven directional ion transport for enhanced osmotic energy harvesting. National Science Review, 2021, 8, nwaa231.	4.6	24
74	Enhancement of Plasmonâ€Induced Photoelectrocatalytic Water Oxidation over Au/TiO₂ with Lithium Intercalation. Angewandte Chemie - International Edition, 2022, 61, .	7.2	23
75	Study of the Phase Transformation of Single Particles of Ga₂O₃ by UVâ€Raman Spectroscopy and Highâ€Resolution TEM. Chemistry - an Asian Journal, 2013, 8, 2189-2195.	1.7	22
76	Catalytic performance of different types of iron zeolites in N2O decomposition. Chinese Journal of Catalysis, 2013, 34, 876-888.	6.9	22
77	A tetragonal tungsten bronze-type photocatalyst: Ferro-paraelectric phase transition and photocatalysis. Chinese Journal of Catalysis, 2016, 37, 1257-1262.	6.9	22
78	Surfaceâ€Polarityâ€Induced Spatial Charge Separation Boosts Photocatalytic Overall Water Splitting on GaN Nanorod Arrays. Angewandte Chemie, 2020, 132, 945-952.	1.6	22
79	The Polarization Effect in Surfaceâ€Plasmonâ€Induced Photocatalysis on Au/TiO₂ Nanoparticles. Angewandte Chemie, 2020, 132, 18375-18380.	1.6	22
80	Identification of Fe2(Î¼-O) and Fe2(Î¼-O)2 sites in Fe/ZSM-35 by in situ resonance Raman spectroscopy. Journal of Catalysis, 2013, 301, 77-82.	3.1	21
81	Unraveling the Kinetics of Photocatalytic Water Oxidation on WO₃. Journal of Physical Chemistry Letters, 2020, 11, 412-418.	2.1	21
82	Integration of Fe_xS electrocatalysts and simultaneously generated interfacial oxygen vacancies to synergistically boost photoelectrochemical water splitting of Fe₂O₃ photoanodes. Chemical Communications, 2018, 54, 13817-13820.	2.2	19
83	Low-Work Function Metals Boost Selective and Fast Scission of Methanol Câ€“H Bonds. ACS Catalysis, 2022, 12, 6375-6384.	5.5	19
84	Deep UV resonance Raman spectroscopic study of CnF2n+2molecules: the excitation of C-C Ïƒ bond. Journal of Raman Spectroscopy, 2013, 44, 266-269.	1.2	18
85	Surface Assistant Charge Separation in PEC Cu₂Sâ€“Ni/Cu₂O Cathode. ACS Applied Materials & Interfaces, 2019, 11, 34000-34009.	4.0	18
86	Dual Extraction of Photogenerated Electrons and Holes from a Ferroelectric Sr_{0.5}Ba_{0.5}Nb₂O₆ Semiconductor. ACS Applied Materials & Interfaces, 2016, 8, 13857-13864.	4.0	16
87	Formation of multifaceted nano-groove structure on rutile TiO2 photoanode for efficient electron-hole separation and water splitting. Journal of Energy Chemistry, 2022, 65, 19-25.	7.1	16
88	Solventâ€Free Synthesis of <scp>ITQ</scp>â€12, <scp>ITQ</scp>â€13, and <scp>ITQ</scp>â€17 Zeolites. Chinese Journal of Chemistry, 2017, 35, 572-576.	2.6	15
89	Location of Mg Cations in Mordenite Zeolite Studied by IR Spectroscopy and Density Functional Theory Simulations with a CO Adsorption Probe. Journal of Physical Chemistry A, 2008, 112, 1352-1358.	1.1	14
90	Mesoporous titanosilicates with high loading of titanium synthesized in mild acidic buffer solution. Journal of Colloid and Interface Science, 2009, 335, 203-209.	5.0	14

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91	Effects of the interfacial defects in Au/ TiO2 on plasmon-induced water oxidation. Journal of Chemical Physics, 2020, 152, 194702.	1.2	14
92	A Dualâ€Ligand Strategy to Regulate the Nucleation and Growth of Lead Chromate Photoanodes for Photoelectrochemical Water Splitting. Advanced Materials, 2022, 34, e2110610.	11.1	14
93	Time-resolved infrared spectroscopic investigation of roles of valence states of Cr in (La,Cr)-doped SrTiO3 photocatalysts. Chinese Journal of Catalysis, 2013, 34, 2036-2040.	6.9	13
94	Insights into the aminothermal crystallization process of SAPO-34 and its comparison with hydrothermal system. Microporous and Mesoporous Materials, 2017, 248, 204-213.	2.2	13
95	Visualizing the Spatial Heterogeneity of Electron Transfer on a Metallic Nanoplate Prism. Nano Letters, 2021, 21, 8901-8909.	4.5	13
96	Homogeneous solution assembled Turing structures with near zero strain semi-coherence interface. Nature Communications, 2022, 13, .	5.8	13
97	Charge Separation by Creating Band Bending in Metalâ€“Organic Frameworks for Improved Photocatalytic Hydrogen Evolution. Angewandte Chemie, 2022, 134, .	1.6	11
98	Note: Deep ultraviolet Raman spectrograph with the laser excitation line down to 177.3 nm and its application. Review of Scientific Instruments, 2014, 85, 046105.	0.6	10
99	Structure and Basicity of Microporous Titanosilicate ETS-10 and Vanadium-Containing ETS-10. Journal of Physical Chemistry C, 2012, 116, 17124-17133.	1.5	9
100	Mechanistic Understanding of Efficient Photocatalytic H₂ Evolution on Twoâ€Dimensional Layered Lead Iodide Hybrid Perovskites. Angewandte Chemie, 2021, 133, 7452-7457.	1.6	9
101	A novel synthetic strategy of Fe-ZSM-35 with pure framework Fe species and its formation mechanism. Inorganic Chemistry Frontiers, 2018, 5, 2031-2037.	3.0	9
102	Unraveling Chargeâ€Separation Mechanisms in Photocatalyst Particles by Spatially Resolved Surface Photovoltage Techniques. Angewandte Chemie, 2022, 134, .	1.6	9
103	Constructing Anataseâ€“Brookite TiO₂ Phase Junction by Thermal Topotactic Transition to Promote Charge Separation for Superior Photocatalytic H₂ Generation. Journal of Physical Chemistry Letters, 2022, 13, 4244-4250.	2.1	9
104	â€œExtractingâ€•the Key Fragment in ETSâ€10 Crystallization and Its Application in AMâ€6 Assembly. Chemistry - A European Journal, 2012, 18, 12078-12084.	1.7	8
105	Deep UV resonance Raman spectroscopic study on electronâ€phonon coupling in hexagonal IIIâ€nitride wide bandgap semiconductors. Journal of Raman Spectroscopy, 2016, 47, 884-887.	1.2	8
106	Photo-induced self-formation of dual-cocatalysts on semiconductor surface. Chinese Journal of Catalysis, 2018, 39, 1730-1735.	6.9	8
107	Identifying the Role of the Local Charge Density on the Hydrogen Evolution Reaction of the Photoelectrode. Journal of Physical Chemistry Letters, 2021, 12, 10829-10836.	2.1	8
108	Can Li: A Career in Catalysis. ACS Catalysis, 2022, 12, 3063-3082.	5.5	8

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109	Site Sensitivity of Interfacial Charge Transfer and Photocatalytic Efficiency in Photocatalysis: Methanol Oxidation on Anatase TiO 2 Nanocrystals. Angewandte Chemie, 2021, 133, 6225-6234.	1.6	7
110	Enhancement of the visible light absorption intensity of microporous vanadosilicate AM-6. Chemical Communications, 2012, 48, 11892.	2.2	6
111	Synthesis and Morphology Control of AMâ€6 Nanofibers with Tailored â€Vâ€Oâ€Vâ€•Intermediates. Chemistry - A European Journal, 2013, 19, 14200-14204.	1.7	5
112	UV Raman Spectroscopic Studies on the Synthesis Mechanism of FeAlPO4-5. Chinese Journal of Catalysis, 2012, 33, 106-113.	6.9	4
113	Tip-induced directional charge separation on one-dimensional BiVO4 nanocones for asymmetric light absorption. Journal of Energy Chemistry, 2022, 72, 326-332.	7.1	4
114	Holeâ€Storage Enhanced aâ€Si Photocathodes for Efficient Hydrogen Production. Angewandte Chemie, 2021, 133, 12073-12079.	1.6	2
115	From molecular fragments to active sites:in situ,resonance UV Raman spectroscopy study on zeolitic catalyst. Scientia Sinica Chimica, 2013, 43, 1818.	0.2	2
116	Static Synthesis and Crystallization Mechanism of ZSM-35 Zeolite. Chinese Journal of Catalysis, 2010, 31, 788-792.	6.9	1
117	Enhancement of Plasmonâ€Induced Photoelectrocatalytic Water Oxidation over Au/TiO₂ with Lithium Intercalation. Angewandte Chemie, 2022, 134, .	1.6	1
118	Construction and Nanoscale Detection of Interfacial Charge Transfer of Elegant Z-Scheme WO/Au/InS Nanowire Arrays. Nano Letters, 2016, , .	4.5	0