Baoshun Liu

List of Publications by Year
in descending order

57 papers	1,921 citations	236925 25 h-index	254184 43 g-index
57 all docs	57 docs citations	57 times ranked	2570 citing authors

#	Article	IF	Citations
1	Plasmon-assisted facile selective gaseous isopropanol dehydrogenation over Ag nanocubes. Catalysis Science and Technology, 2022, 12, 94-104.	4.1	6
2	A lightâ€“heat synergism in the sub-bandgap photocatalytic response of pristine TiO₂: a study of in situ diffusion reflectance and conductance. Physical Chemistry Chemical Physics, 2022, 24, 5618-5626.	2.8	4
3	Controlling the crystalline orientation and textual morphologies of the VO₂ film and the effect on insulatorâ€“metal transition properties. Japanese Journal of Applied Physics, 2022, 61, 085504.	1.5	6
4	Kinetics and energetic analysis of the slow dispersive electron transfer from nano-TiO₂ to O₂ by in situ diffusion reflectance and Laplace transform. Physical Chemistry Chemical Physics, 2021, 23, 19901-19910.	2.8	3
5	The effect of Cu dopants on electron transfer to O₂ and the connection with acetone photocatalytic oxidations over nano-TiO₂. Physical Chemistry Chemical Physics, 2021, 23, 8300-8308.	2.8	6
6	Preparation, Characterization, and Photocatalytic Properties of Self-Standing Pure and Cu-Doped TiO₂ Nanobelt Membranes. ACS Omega, 2021, 6, 4534-4541.	3.5	9
7	Comparative study of the metal insulator transition of a VO2 film with simultaneous infrared thermography and electric measurements. AIP Advances, 2021, 11, 035026.	1.3	5
8	Kinetics analysis of the electron transfer from nano-TiO2 to O2 through on-line absorptions and theoretical modeling. Journal of Applied Physics, 2021, 129, .	2.5	5
9	Facile Preparation of Zn₂V₂O₇â€“VO₂ Composite Films with Enhanced Thermochromic Properties for Smart Windows. ACS Applied Electronic Materials, 2021, 3, 2224-2232.	4.3	17
10	Exponential and Gaussian traps in nano-TiO2 and their function in kinetics of the electron transfer to O2. Journal of Applied Physics, 2021, 130, 035102.	2.5	1
11	Acid Solution Processed VO2-Based Composite Films with Enhanced Thermochromic Properties for Smart Windows. Materials, 2021, 14, 4927.	2.9	7
12	Observation of the crystalline orientation dependence of the semiconductorâ€“metal transition for thermal oxidation induced VO₂ films over amorphous quartz glasses. AIP Advances, 2021, 11, 125232.	1.3	4
13	New Insights into the Fundamental Principle of Semiconductor Photocatalysis. ACS Omega, 2020, 5, 14847-14856.	3.5	44
14	Facile synthesis of VO2 (D) and its transformation to VO2(M) with enhanced thermochromic properties for smart windows. Ceramics International, 2020, 46, 14739-14746.	4.8	31
15	Hydrothermal synthesis of delafossite CuScO₂ hexagonal plates as an electrocatalyst for the alkaline oxygen evolution reaction. Dalton Transactions, 2020, 49, 3519-3524.	3.3	18
16	Charge carrier transfer in photocatalysis. Interface Science and Technology, 2020, , 103-159.	3.3	2
17	Can Plasmonic Effect Cause an Increase in the Catalytic Reduction of p-nitrophenol by Sodium Borohydride over Au Nanorods?. ACS Omega, 2020, 5, 11998-12004.	3.5	7
18	One-step fabrication of a self-supported Co@CoTe₂ electrocatalyst for efficient and durable oxygen evolution reactions. Inorganic Chemistry Frontiers, 2020, 7, 2523-2532.	6.0	37

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19	Liquid N2 quenching induced oxygen defects and surface distortion in TiO2 and the effect on the photocatalysis of methylene blue and acetone. Applied Surface Science, 2019, 494, 266-274.	6.1	18
20	Gaseous Photocatalytic Oxidation of Formic Acid over TiO₂: A Comparison between the Charge Carrier Transfer and Light-Assisted Marsâ€“van Krevelen Pathways. Journal of Physical Chemistry C, 2019, 123, 22261-22272.	3.1	13
21	TiO₂ Nanotube Arrays Formed on Ti Meshes with Periodically Arranged Holes for Flexible Dye-Sensitized Solar Cells. ACS Applied Nano Materials, 2019, 2, 3943-3950.	5.0	24
22	Intrinsic intermediate gap states of TiO2 materials and their roles in charge carrier kinetics. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2019, 39, 1-57.	11.6	70
23	Effects of crystallinity, {001}/{101} ratio, and Au decoration on the photocatalytic activity of anatase TiO2 crystals. Chinese Journal of Catalysis, 2019, 40, 403-412.	14.0	42
24	New Insight into the Role of Electron Transfer to O₂ in Photocatalytic Oxidations of Acetone over TiO₂ and the Effect of Au Cocatalyst. Journal of Physical Chemistry C, 2019, 123, 30958-30971.	3.1	16
25	Charge carrier interfacial transfer pathways from TiO2 and Au/TiO2 nanorod arrays to electrolyte and the association with photocatalysis. Applied Surface Science, 2019, 464, 367-375.	6.1	43
26	High sub-band gap response of TiO2 nanorod arrays for visible photoelectrochemical water oxidation. Applied Surface Science, 2019, 465, 192-200.	6.1	24
27	Facile synthesis of mesoporous VO2 nanocrystals by a cotton-template method and their enhanced thermochromic properties. Solar Energy Materials and Solar Cells, 2018, 176, 427-434.	6.2	49
28	A low temperature hydrothermal synthesis of delafossite CuCoO₂ as an efficient electrocatalyst for the oxygen evolution reaction in alkaline solutions. Inorganic Chemistry Frontiers, 2018, 5, 183-188.	6.0	58
29	The role of electron interfacial transfer in mesoporous nano-TiO₂ photocatalysis: a combined study of in situ photoconductivity and numerical kinetic simulation. Physical Chemistry Chemical Physics, 2017, 19, 8866-8873.	2.8	24
30	Observation of reduced phase transition temperature in N-doped thermochromic film of monoclinic VO2. Applied Surface Science, 2017, 410, 363-372.	6.1	43
31	The synergetic effect of V and Fe-co-doping in TiO 2 studied from the DFT + U first-principle calculation. Applied Surface Science, 2017, 399, 654-662.	6.1	43
32	Iceâ€“Water Quenching Induced Ti³⁺ Self-doped TiO₂ with Surface Lattice Distortion and the Increased Photocatalytic Activity. Journal of Physical Chemistry C, 2017, 121, 19836-19848.	3.1	69
33	A visible-light-active Au-Cu(I)@Na2Ti6O13 nanostructured hybrid pasmonic photocatalytic membrane for acetaldehyde elimination. Chinese Journal of Catalysis, 2017, 38, 2048-2055.	14.0	20
34	Monte-Carlo modelling of nano-material photocatalysis: bridging photocatalytic activity and microscopic charge kinetics. Physical Chemistry Chemical Physics, 2016, 18, 11520-11527.	2.8	23
35	A stochastic study of electron transfer kinetics in nano-particulate photocatalysis: a comparison of the quasi-equilibrium approximation with a random walking model. Physical Chemistry Chemical Physics, 2016, 18, 31914-31923.	2.8	14
36	Facile process to greatly improve the photocatalytic activity of the TiO 2 thin film on window glass for the photodegradation of acetone and benzene. Chemical Engineering Journal, 2016, 284, 1156-1164.	12.7	37

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37	Dye-sensitized solar cells fabricated by the TiO2 nanostructural materials synthesized by electrospray and hydrothermal post-treatment. Applied Surface Science, 2015, 358, 412-417.	6.1	19
38	In Situ Photoconductivity Kinetic Study of Nano-TiO₂ during the Photocatalytic Oxidation of Formic Acid: Effects of New Recombination and Current Doubling. Journal of Physical Chemistry C, 2015, 119, 21711-21722.	3.1	19
39	Thermodynamic and kinetic analysis of heterogeneous photocatalysis for semiconductor systems. Physical Chemistry Chemical Physics, 2014, 16, 8751.	2.8	225
40	Investigation of Electron Behavior in Nanoâ€TiO₂ Photocatalysis by Using In Situ Openâ€Circuit Voltage and Photoconductivity Measurements. Chemistry - A European Journal, 2013, 19, 10751-10759.	3.3	26
41	Construction of hierarchical titanium dioxide nanomaterials by tuning the structure of polyvinylpyrrolidoneâ€“titanium butoxide complexes from 2- to 3-dimensional. Journal of Materials Chemistry A, 2013, 1, 4993.	10.3	25
42	Synthesis, Characterization, and Photocatalysis of Fe-Doped : A Combined Experimental and Theoretical Study. International Journal of Photoenergy, 2012, 2012, 1-10.	2.5	34
43	Application of ArcGIS in Recovery and Management of Geological Environment. , 2012, , .		0
44	<scp><scp>TiO</scp></scp>₂/<scp><scp>WO</scp></scp>₃ Layered Film with Dualâ€Function of Antiâ€<scp>UV</scp> Light and High Photoelectrocatalytic Activity: Facile Preparation and Characterization. Journal of the American Ceramic Society, 2012, 95, 3346-3351.	3.8	13
45	Hierarchical TiO2 spherical nanostructures with tunable pore size, pore volume, and specific surface area: facile preparation and high-photocatalytic performance. Catalysis Science and Technology, 2012, 2, 1933.	4.1	77
46	Theoretical Kinetic Analysis of Heterogeneous Photocatalysis: The Effects of Surface Trapping and Bulk Recombination through Defects. Journal of Physical Chemistry C, 2011, 115, 16037-16042.	3.1	40
47	Ag/epoxy nanocomposite film with aligned Ag nanowires and their polarization property. Journal of Materials Research, 2011, 26, 2691-2700.	2.6	20
48	Mesoporous TiO2Coreâ€“Shell Spheres Composed of Nanocrystals with Exposed High-Energy Facets: Facile Synthesis and Formation Mechanism. Langmuir, 2011, 27, 8500-8508.	3.5	89
49	Roasting reduction-magnetic separation of oolitic-hematite and preparation of cementitious materials. , 2011, , .		0
50	Temperature effect on the photocatalytic degradation of methyl orange under UV-vis light irradiation. Journal Wuhan University of Technology, Materials Science Edition, 2010, 25, 210-213.	1.0	41
51	Preparation, characterization and photocatalytic property of Ag-loaded TiO2 powders using photodeposition method. Journal Wuhan University of Technology, Materials Science Edition, 2009, 24, 258-263.	1.0	14
52	The effect of sputtering power on the structure and photocatalytic activity of TiO2 films prepared by magnetron sputtering. Thin Solid Films, 2009, 517, 6569-6575.	1.8	39
53	Low temperature fabrication of V-doped TiO2 nanoparticles, structure and photocatalytic studies. Journal of Hazardous Materials, 2009, 169, 1112-1118.	12.4	135
54	The surface change of TiO2 film induced by UV illumination and the effects on UVâ€“vis transmission spectra. Applied Surface Science, 2008, 255, 2752-2758.	6.1	11

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55	The photoluminescence spectroscopic study of anatase TiO2 prepared by magnetron sputtering. Materials Chemistry and Physics, 2007, 106, 350-353.	4.0	124
56	The structural and photoluminescence studies related to the surface of the TiO2 sol prepared by wet chemical method. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 134, 27-31.	3.5	55
57	The effect of O2 partial pressure on the structure and photocatalytic property of TiO2 films prepared by sputtering. Materials Chemistry and Physics, 2005, 90, 207-212.	4.0	73