Hyoungâ€“il Kim

List of Publications by Year
in descending order

49 papers	4,553 citations	159358 30 h-index	197535 49 g-index
50 all docs	50 docs citations	50 times ranked	6278 citing authors

#	Article	IF	Citations
1	Recent advances in materials for and applications of tripletâ€“triplet annihilation-based upconversion. Journal of Materials Chemistry C, 2022, 10, 4483-4496.	2.7	44
2	Solar-to-hydrogen peroxide conversion of photocatalytic carbon dots with anthraquinone: Unveiling the dual role of surface functionalities. Applied Catalysis B: Environmental, 2022, 312, 121379.	10.8	28
3	Revisiting the Oxidizing Capacity of the Periodateâ€“H₂O₂ Mixture: Identification of the Primary Oxidants and Their Formation Mechanisms. Environmental Science & Technology, 2022, 56, 5763-5774.	4.6	26
4	Low-temperature hydrogenation of nanodiamond as a strategy to fabricate sp-hybridized nanocarbon as a high-performance persulfate activator. Applied Catalysis B: Environmental, 2022, 316, 121589.	10.8	4
5	Molybdenum-Doped Nickel Disulfide (NiS₂:Mo) Microspheres as an Active Anode Material for High-Performance Durable Lithium-Ion Batteries. ACS Applied Energy Materials, 2022, 5, 6734-6745.	2.5	5
6	Hand-ground fullerene-nanodiamond composite for photosensitized water treatment and photodynamic cancer therapy. Journal of Colloid and Interface Science, 2021, 587, 101-109.	5.0	12
7	Synergistic effect of Sn doping and hydrogenation on hematite electrodes for photoelectrochemical water oxidation. Materials Chemistry Frontiers, 2021, 5, 6592-6602.	3.2	7
8	Evaluation of thermal properties and acetaldehyde adsorption performance of sustainable composites using waste wood and biochar. Environmental Research, 2021, 196, 110910.	3.7	15
9	Revisiting the Role of Peroxymonosulfate in TiO₂-Mediated Photocatalytic Oxidation: Dependence of Kinetic Enhancement on Target Substrate and Surface Platinization. ACS ES&T Engineering, 2021, 1, 1530-1541.	3.7	16
10	Spontaneous oxidation of arsenite on platinized TiO2 through activating molecular oxygen under ambient aqueous condition. Applied Catalysis B: Environmental, 2020, 260, 118146.	10.8	16
11	Surface and bulk modification for advanced electrode design in photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2020, 45, 5793-5815.	3.8	11
12	Single-photon-driven up-/down-conversion nanohybrids for in vivo mercury detection and real-time tracking. Journal of Materials Chemistry A, 2020, 8, 1668-1677.	5.2	13
13	Ag(I) ions working as a hole-transfer mediator in photoelectrocatalytic water oxidation on WO3 film. Nature Communications, 2020, 11, 967.	5.8	66
14	Highly durable photoelectrochemical H₂O₂ production via dual photoanode and cathode processes under solar simulating and external bias-free conditions. Energy and Environmental Science, 2020, 13, 1730-1742.	15.6	73
15	Titanium dioxide surface modified with both palladium and fluoride as an efficient photocatalyst for the degradation of urea. Separation and Purification Technology, 2019, 209, 580-587.	3.9	26
16	Electrochemical oxidation of organics in sulfate solutions on boron-doped diamond electrode: Multiple pathways for sulfate radical generation. Applied Catalysis B: Environmental, 2019, 254, 156-165.	10.8	91
17	Minireview: Selective production of hydrogen peroxide as a clean oxidant over structurally tailored carbon nitride photocatalysts. Catalysis Today, 2019, 335, 55-64.	2.2	72
18	Surface-loaded metal nanoparticles for peroxymonosulfate activation: Efficiency and mechanism reconnaissance. Applied Catalysis B: Environmental, 2019, 241, 561-569.	10.8	260

#	Article	IF	Citations
19	The Myth of Visible Light Photocatalysis Using Lanthanide Upconversion Materials. Environmental Science & Technology, 2018, 52, 2973-2980.	4.6	42
20	Photocatalytic hydrogen peroxide production by anthraquinone-augmented polymeric carbon nitride. Applied Catalysis B: Environmental, 2018, 229, 121-129.	10.8	171
21	Surface-modified polymer nanofiber membrane for high-efficiency microdust capturing. Chemical Engineering Journal, 2018, 339, 204-213.	6.6	62
22	Synchronized methylene blue removal using Fenton-like reaction induced by phosphorous oxoanion and submerged plasma irradiation process. Journal of Environmental Management, 2018, 206, 77-84.	3.8	14
23	Exploring the Role of Persulfate in the Activation Process: Radical Precursor Versus Electron Acceptor. Environmental Science & Technology, 2017, 51, 10090-10099.	4.6	282
24	Scaffold-Like Titanium Nitride Nanotubes with a Highly Conductive Porous Architecture as a Nanoparticle Catalyst Support for Oxygen Reduction. ACS Catalysis, 2016, 6, 3914-3920.	5.5	51
25	Activation of Persulfates by Graphitized Nanodiamonds for Removal of Organic Compounds. Environmental Science & Technology, 2016, 50, 10134-10142.	4.6	546
26	Plasmon-Enhanced Sub-Bandgap Photocatalysis via Tripletâ€“Triplet Annihilation Upconversion for Volatile Organic Compound Degradation. Environmental Science & Technology, 2016, 50, 11184-11192.	4.6	53
27	Temperature-boosted photocatalytic H2 production and charge transfer kinetics on TiO2 under UV and visible light. Photochemical and Photobiological Sciences, 2016, 15, 1247-1253.	1.6	23
28	Robust Co-catalytic Performance of Nanodiamonds Loaded on WO₃ for the Decomposition of Volatile Organic Compounds under Visible Light. ACS Catalysis, 2016, 6, 8350-8360.	5.5	98
29	Harnessing low energy photons (635 nm) for the production of H₂O₂ using upconversion nanohybrid photocatalysts. Energy and Environmental Science, 2016, 9, 1063-1073.	15.6	160
30	Anodic TiO2 nanotube layer directly formed on the inner surface of Ti pipe for a tubular photocatalytic reactor. Applied Catalysis A: General, 2016, 521, 174-181.	2.2	17
31	Dual-Color Emissive Upconversion Nanocapsules for Differential Cancer Bioimaging In Vivo. ACS Nano, 2016, 10, 1512-1521.	7.3	157
32	Boosting up the Low Catalytic Activity of Silver for H₂ Production on Ag/TiO₂ Photocatalyst: Thiocyanate as a Selective Modifier. ACS Catalysis, 2016, 6, 821-828.	5.5	153
33	Photoinduced charge transfer processes in solar photocatalysis based on modified TiO₂. Energy and Environmental Science, 2016, 9, 411-433.	15.6	494
34	Dual-functional photocatalysis using a ternary hybrid of TiO2 modified with graphene oxide along with Pt and fluoride for H2-producing water treatment. Journal of Catalysis, 2015, 330, 387-395.	3.1	53
35	To What Extent Can Surface Morphology Influence the Photoelectrochemical Performance of Au:WO₃ Electrodes?. Journal of Physical Chemistry C, 2015, 119, 1271-1279.	1.5	23
36	Squaraine-sensitized composite of a reduced graphene oxide/TiO₂ photocatalyst: Ï€â€“Ï€ stacking as a new method of dye anchoring. Journal of Materials Chemistry A, 2015, 3, 232-239.	5.2	25

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37	Self-assembled TiO2 agglomerates hybridized with reduced-graphene oxide: A high-performance hybrid photocatalyst for solar energy conversion. Chemical Engineering Journal, 2015, 262, 409-416.	6.6	32
38	N-doped TiO₂ nanotubes coated with a thin TaO_xN_y layer for photoelectrochemical water splitting: dual bulk and surface modification of photoanodes. Energy and Environmental Science, 2015, 8, 247-257.	15.6	155
39	Platinum-like Behavior of Reduced Graphene Oxide as a Cocatalyst on TiO₂ for the Efficient Photocatalytic Oxidation of Arsenite. Environmental Science and Technology Letters, 2014, 1, 185-190.	3.9	114
40	Graphene oxide embedded into TiO2 nanofiber: Effective hybrid photocatalyst for solar conversion. Journal of Catalysis, 2014, 309, 49-57.	3.1	77
41	Inhibition of CO poisoning on Pt catalyst coupled with the reduction of toxic hexavalent chromium in a dual-functional fuel cell. Scientific Reports, 2014, 4, 7450.	1.6	77
42	Promoting water photooxidation on transparent WO3 thin films using an alumina overlayer. Energy and Environmental Science, 2013, 6, 3732.	15.6	134
43	Graphitic domain layered titania nanotube arrays for separation and shuttling of solar-driven electrons. Journal of Materials Chemistry A, 2013, 1, 203-207.	5.2	7
44	Implementation of Ag nanoparticle incorporated WO3 thin film photoanode for hydrogen production. International Journal of Hydrogen Energy, 2013, 38, 2117-2125.	3.8	32
45	Chemical-free growth of metal nanoparticles on graphene oxide sheets under visible light irradiation. RSC Advances, 2012, 2, 2205.	1.7	31
46	Solar Photoconversion Using Graphene/TiO₂ Composites: Nanographene Shell on TiO₂ Core versus TiO₂ Nanoparticles on Graphene Sheet. Journal of Physical Chemistry C, 2012, 116, 1535-1543.	1.5	292
47	A Strong Electronic Coupling between Graphene Nanosheets and Layered Titanate Nanoplates: A Softâ€Chemical Route to Highly Porous Nanocomposites with Improved Photocatalytic Activity. Small, 2012, 8, 1038-1048.	5.2	113
48	Optimal Ag concentration for H2 production via Ag:TiO2 nanocomposite thin film photoanode. International Journal of Hydrogen Energy, 2012, 37, 3056-3065.	3.8	41
49	Enhanced Photocatalytic and Photoelectrochemical Activity in the Ternary Hybrid of CdS/TiO₂/WO₃ through the Cascadal Electron Transfer. Journal of Physical Chemistry C, 2011, 115, 9797-9805.	1.5	238