

Hyoungil Kim

List of Publications by Year in descending order

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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	Activation of Persulfates by Graphitized Nanodiamonds for Removal of Organic Compounds. <i>Environmental Science & Technology</i> , 2016, 50, 10134-10142.	4.6	546
2	Photoinduced charge transfer processes in solar photocatalysis based on modified TiO ₂ . <i>Energy and Environmental Science</i> , 2016, 9, 411-433.	15.6	494
3	Solar Photoconversion Using Graphene/TiO ₂ Composites: Nanographene Shell on TiO ₂ Core versus TiO ₂ Nanoparticles on Graphene Sheet. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1535-1543.	1.5	292
4	Exploring the Role of Persulfate in the Activation Process: Radical Precursor Versus Electron Acceptor. <i>Environmental Science & Technology</i> , 2017, 51, 10090-10099.	4.6	282
5	Surface-loaded metal nanoparticles for peroxymonosulfate activation: Efficiency and mechanism reconnaissance. <i>Applied Catalysis B: Environmental</i> , 2019, 241, 561-569.	10.8	260
6	Enhanced Photocatalytic and Photoelectrochemical Activity in the Ternary Hybrid of CdS/TiO ₂ /WO ₃ through the Cascadal Electron Transfer. <i>Journal of Physical Chemistry C</i> , 2011, 115, 9797-9805.	1.5	238
7	Photocatalytic hydrogen peroxide production by anthraquinone-augmented polymeric carbon nitride. <i>Applied Catalysis B: Environmental</i> , 2018, 229, 121-129.	10.8	171
8	Harnessing low energy photons (635 nm) for the production of H ₂ O ₂ using upconversion nanohybrid photocatalysts. <i>Energy and Environmental Science</i> , 2016, 9, 1063-1073.	15.6	160
9	Dual-Color Emissive Upconversion Nanocapsules for Differential Cancer Bioimaging <i>In Vivo</i> . <i>ACS Nano</i> , 2016, 10, 1512-1521.	7.3	157
10	N-doped TiO ₂ nanotubes coated with a thin TaO _x N _y layer for photoelectrochemical water splitting: dual bulk and surface modification of photoanodes. <i>Energy and Environmental Science</i> , 2015, 8, 247-257.	15.6	155
11	Boosting up the Low Catalytic Activity of Silver for H ₂ Production on Ag/TiO ₂ Photocatalyst: Thiocyanate as a Selective Modifier. <i>ACS Catalysis</i> , 2016, 6, 821-828.	5.5	153
12	Promoting water photooxidation on transparent WO ₃ thin films using an alumina overlayer. <i>Energy and Environmental Science</i> , 2013, 6, 3732.	15.6	134
13	Platinum-like Behavior of Reduced Graphene Oxide as a Cocatalyst on TiO ₂ for the Efficient Photocatalytic Oxidation of Arsenite. <i>Environmental Science and Technology Letters</i> , 2014, 1, 185-190.	3.9	114
14	A Strong Electronic Coupling between Graphene Nanosheets and Layered Titanate Nanoplates: A Soft Chemical Route to Highly Porous Nanocomposites with Improved Photocatalytic Activity. <i>Small</i> , 2012, 8, 1038-1048.	5.2	113
15	Robust Co-catalytic Performance of Nanodiamonds Loaded on WO ₃ for the Decomposition of Volatile Organic Compounds under Visible Light. <i>ACS Catalysis</i> , 2016, 6, 8350-8360.	5.5	98
16	Electrochemical oxidation of organics in sulfate solutions on boron-doped diamond electrode: Multiple pathways for sulfate radical generation. <i>Applied Catalysis B: Environmental</i> , 2019, 254, 156-165.	10.8	91
17	Graphene oxide embedded into TiO ₂ nanofiber: Effective hybrid photocatalyst for solar conversion. <i>Journal of Catalysis</i> , 2014, 309, 49-57.	3.1	77
18	Inhibition of CO poisoning on Pt catalyst coupled with the reduction of toxic hexavalent chromium in a dual-functional fuel cell. <i>Scientific Reports</i> , 2014, 4, 7450.	1.6	77

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19	Highly durable photoelectrochemical H ₂ O ₂ production via dual photoanode and cathode processes under solar simulating and external bias-free conditions. <i>Energy and Environmental Science</i> , 2020, 13, 1730-1742.	15.6	73
20	Minireview: Selective production of hydrogen peroxide as a clean oxidant over structurally tailored carbon nitride photocatalysts. <i>Catalysis Today</i> , 2019, 335, 55-64.	2.2	72
21	Ag(I) ions working as a hole-transfer mediator in photoelectrocatalytic water oxidation on WO ₃ film. <i>Nature Communications</i> , 2020, 11, 967.	5.8	66
22	Surface-modified polymer nanofiber membrane for high-efficiency microdust capturing. <i>Chemical Engineering Journal</i> , 2018, 339, 204-213.	6.6	62
23	Dual-functional photocatalysis using a ternary hybrid of TiO ₂ modified with graphene oxide along with Pt and fluoride for H ₂ -producing water treatment. <i>Journal of Catalysis</i> , 2015, 330, 387-395.	3.1	53
24	Plasmon-Enhanced Sub-Bandgap Photocatalysis via Triplet-Triplet Annihilation Upconversion for Volatile Organic Compound Degradation. <i>Environmental Science & Technology</i> , 2016, 50, 11184-11192.	4.6	53
25	Scaffold-Like Titanium Nitride Nanotubes with a Highly Conductive Porous Architecture as a Nanoparticle Catalyst Support for Oxygen Reduction. <i>ACS Catalysis</i> , 2016, 6, 3914-3920.	5.5	51
26	Recent advances in materials for and applications of triplet-triplet annihilation-based upconversion. <i>Journal of Materials Chemistry C</i> , 2022, 10, 4483-4496.	2.7	44
27	The Myth of Visible Light Photocatalysis Using Lanthanide Upconversion Materials. <i>Environmental Science & Technology</i> , 2018, 52, 2973-2980.	4.6	42
28	Optimal Ag concentration for H ₂ production via Ag:TiO ₂ nanocomposite thin film photoanode. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 3056-3065.	3.8	41
29	Implementation of Ag nanoparticle incorporated WO ₃ thin film photoanode for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 2117-2125.	3.8	32
30	Self-assembled TiO ₂ agglomerates hybridized with reduced-graphene oxide: A high-performance hybrid photocatalyst for solar energy conversion. <i>Chemical Engineering Journal</i> , 2015, 262, 409-416.	6.6	32
31	Chemical-free growth of metal nanoparticles on graphene oxide sheets under visible light irradiation. <i>RSC Advances</i> , 2012, 2, 2205.	1.7	31
32	Solar-to-hydrogen peroxide conversion of photocatalytic carbon dots with anthraquinone: Unveiling the dual role of surface functionalities. <i>Applied Catalysis B: Environmental</i> , 2022, 312, 121379.	10.8	28
33	Titanium dioxide surface modified with both palladium and fluoride as an efficient photocatalyst for the degradation of urea. <i>Separation and Purification Technology</i> , 2019, 209, 580-587.	3.9	26
34	Revisiting the Oxidizing Capacity of the Periodate-H ₂ O ₂ Mixture: Identification of the Primary Oxidants and Their Formation Mechanisms. <i>Environmental Science & Technology</i> , 2022, 56, 5763-5774.	4.6	26
35	Squaraine-sensitized composite of a reduced graphene oxide/TiO ₂ photocatalyst: π - π stacking as a new method of dye anchoring. <i>Journal of Materials Chemistry A</i> , 2015, 3, 232-239.	5.2	25
36	To What Extent Can Surface Morphology Influence the Photoelectrochemical Performance of Au:WO ₃ Electrodes?. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1271-1279.	1.5	23

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37	Temperature-boosted photocatalytic H ₂ production and charge transfer kinetics on TiO ₂ under UV and visible light. <i>Photochemical and Photobiological Sciences</i> , 2016, 15, 1247-1253.	1.6	23
38	Anodic TiO ₂ nanotube layer directly formed on the inner surface of Ti pipe for a tubular photocatalytic reactor. <i>Applied Catalysis A: General</i> , 2016, 521, 174-181.	2.2	17
39	Spontaneous oxidation of arsenite on platinized TiO ₂ through activating molecular oxygen under ambient aqueous condition. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118146.	10.8	16
40	Revisiting the Role of Peroxymonosulfate in TiO ₂ -Mediated Photocatalytic Oxidation: Dependence of Kinetic Enhancement on Target Substrate and Surface Platinization. <i>ACS ES&T Engineering</i> , 2021, 1, 1530-1541.	3.7	16
41	Evaluation of thermal properties and acetaldehyde adsorption performance of sustainable composites using waste wood and biochar. <i>Environmental Research</i> , 2021, 196, 110910.	3.7	15
42	Synchronized methylene blue removal using Fenton-like reaction induced by phosphorous oxoanion and submerged plasma irradiation process. <i>Journal of Environmental Management</i> , 2018, 206, 77-84.	3.8	14
43	Single-photon-driven up-/down-conversion nanohybrids for <i>in vivo</i> mercury detection and real-time tracking. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1668-1677.	5.2	13
44	Hand-ground fullerene-nanodiamond composite for photosensitized water treatment and photodynamic cancer therapy. <i>Journal of Colloid and Interface Science</i> , 2021, 587, 101-109.	5.0	12
45	Surface and bulk modification for advanced electrode design in photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 5793-5815.	3.8	11
46	Graphitic domain layered titania nanotube arrays for separation and shuttling of solar-driven electrons. <i>Journal of Materials Chemistry A</i> , 2013, 1, 203-207.	5.2	7
47	Synergistic effect of Sn doping and hydrogenation on hematite electrodes for photoelectrochemical water oxidation. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6592-6602.	3.2	7
48	Molybdenum-Doped Nickel Disulfide (NiS ₂ :Mo) Microspheres as an Active Anode Material for High-Performance Durable Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2022, 5, 6734-6745.	2.5	5
49	Low-temperature hydrogenation of nanodiamond as a strategy to fabricate sp ² -hybridized nanocarbon as a high-performance persulfate activator. <i>Applied Catalysis B: Environmental</i> , 2022, 316, 121589.	10.8	4