Irma ChacÃ³n

List of Publications by Year
in descending order

75 papers	9,959 citations	47409 49 h-index	87275 74 g-index
75 all docs	75 docs citations	75 times ranked	10976 citing authors

#	Article	IF	Citations
1	Recent progress of noble metals with tailored features in catalytic oxidation for organic pollutants degradation. Journal of Hazardous Materials, 2022, 422, 126950.	6.5	49
2	Activation of persulfate by swine bone derived biochar: Insight into the specific role of different active sites and the toxicity of acetaminophen degradation pathways. Science of the Total Environment, 2022, 807, 151059.	3.9	25
3	Efficient antibiotics removal via the synergistic effect of manganese ferrite and MoS2. Chemosphere, 2022, 288, 132494.	4.2	11
4	H₂O₂-free photo-Fenton system for antibiotics degradation in water via the synergism of oxygen-enriched graphitic carbon nitride polymer and nano manganese ferrite. Environmental Science: Nano, 2022, 9, 815-826.	2.2	19
5	Atomically dispersed metal catalysts confined by covalent organic frameworks and their derivatives for electrochemical energy conversion and storage. Coordination Chemistry Reviews, 2022, 466, 214592.	9.5	16
6	A direct Z-scheme oxygen vacant BWO/oxygen-enriched graphitic carbon nitride polymer heterojunction with enhanced photocatalytic activity. Chemical Engineering Journal, 2021, 403, 126363.	6.6	72
7	Progress and challenges of metal-organic frameworks-based materials for SR-AOPs applications in water treatment. Chemosphere, 2021, 263, 127672.	4.2	138
8	Metal-organic frameworks as burgeoning materials for the capture and sensing of indoor VOCs and radon gases. Coordination Chemistry Reviews, 2021, 427, 213565.	9.5	94
9	Future roadmap on nonmetal-based 2D ultrathin nanomaterials for photocatalysis. Chemical Engineering Journal, 2021, 406, 126780.	6.6	39
10	Carbon Dotsâ€Decorated Carbonâ€Based Metalâ€Free Catalysts for Electrochemical Energy Storage. Small, 2021, 17, e2002998.	5.2	27
11	Improving the Fenton-like catalytic performance of MnOx-Fe3O4/biochar using reducing agents: A comparative study. Journal of Hazardous Materials, 2021, 406, 124333.	6.5	115
12	In situ chemical oxidation: peroxide or persulfate coupled with membrane technology for wastewater treatment. Journal of Materials Chemistry A, 2021, 9, 11944-11960.	5.2	69
13	Recent Advance of Transitionâ€Metalâ€Based Layered Double Hydroxide Nanosheets: Synthesis, Properties, Modification, and Electrocatalytic Applications. Advanced Energy Materials, 2021, 11, 2002863.	10.2	137
14	Facile synthesis of CeO2/carbonate doped Bi2O2CO3 Z-scheme heterojunction for improved visible-light photocatalytic performance: Photodegradation of tetracycline and photocatalytic mechanism. Journal of Colloid and Interface Science, 2021, 588, 283-294.	5.0	120
15	MXenes as Superexcellent Support for Confining Single Atom: Properties, Synthesis, and Electrocatalytic Applications. Small, 2021, 17, e2007113.	5.2	52
16	Enhancing iron redox cycling for promoting heterogeneous Fenton performance: A review. Science of the Total Environment, 2021, 775, 145850.	3.9	114
17	Gold nanoparticles-modified MnFe2O4 with synergistic catalysis for photo-Fenton degradation of tetracycline under neutral pH. Journal of Hazardous Materials, 2021, 414, 125448.	6.5	140
18	Visual Method for Selective Detection of Hg²⁺ Based on the Competitive Interactions of 2-Thiobarbituric Acid with Au Nanoparticles and Hg²⁺. ACS Applied Nano Materials, 2021, 4, 6760-6767.	2.4	15

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19	Critical review of advanced oxidation processes in organic wastewater treatment. Chemosphere, 2021, 275, 130104.	4.2	410
20	Stabilization of lead in polluted sediment based on an eco-friendly amendment strategy: Microenvironment response mechanism. Journal of Hazardous Materials, 2021, 415, 125534.	6.5	23
21	Enhanced visible-light-driven photocatalytic activity of bismuth oxide via the decoration of titanium carbide quantum dots. Journal of Colloid and Interface Science, 2021, 600, 161-173.	5.0	51
22	Boron nitride quantum dots decorated MIL-100(Fe) for boosting the photo-generated charge separation in photocatalytic refractory antibiotics removal. Environmental Research, 2021, 202, 111661.	3.7	21
23	Grafting Fe(III) species on oxygen-vacancy abundant BiOIO3 with promoted interfacial charge transfer for photocatalytic ciprofloxacin degradation. Applied Surface Science, 2021, 566, 150658.	3.1	13
24	Facile one-pot synthesis of carbon self-doped graphitic carbon nitride loaded with ultra-low ceric dioxide for high-efficiency environmental photocatalysis: Organic pollutants degradation and hexavalent chromium reduction. Journal of Colloid and Interface Science, 2021, 601, 196-208.	5.0	77
25	COF-confined catalysts: from nanoparticles and nanoclusters to single atoms. Journal of Materials Chemistry A, 2021, 9, 24148-24174.	5.2	37
26	Oxygen vacancy-rich doped CDs@graphite felt-600 heterostructures for high-performance supercapacitor electrodes. Nanoscale, 2021, 13, 4995-5005.	2.8	15
27	Porous graphitic carbon nitride nanomaterials for water treatment. Environmental Science: Nano, 2021, 8, 1835-1862.	2.2	16
28	Porous materials confining noble metals for the catalytic reduction of nitroaromatics: controllable synthesis and enhanced mechanism. Environmental Science: Nano, 2021, 8, 3067-3097.	2.2	22
29	Persulfate activation by swine bone char-derived hierarchical porous carbon: Multiple mechanism system for organic pollutant degradation in aqueous media. Chemical Engineering Journal, 2020, 383, 123091.	6.6	118
30	Role of radical and non-radical pathway in activating persulfate for degradation of p-nitrophenol by sulfur-doped ordered mesoporous carbon. Chemical Engineering Journal, 2020, 384, 123304.	6.6	208
31	Recent development of advanced biotechnology for wastewater treatment. Critical Reviews in Biotechnology, 2020, 40, 99-118.	5.1	35
32	Anchoring single-unit-cell defect-rich bismuth molybdate layers on ultrathin carbon nitride nanosheet with boosted charge transfer for efficient photocatalytic ciprofloxacin degradation. Journal of Colloid and Interface Science, 2020, 560, 701-713.	5.0	57
33	Semiconductor-based photocatalysts for photocatalytic and photoelectrochemical water splitting: will we stop with photocorrosion?. Journal of Materials Chemistry A, 2020, 8, 2286-2322.	5.2	251
34	Metal-organic frameworks and their derivatives as signal amplification elements for electrochemical sensing. Coordination Chemistry Reviews, 2020, 424, 213520.	9.5	105
35	Unravelling the role of dual quantum dots cocatalyst in 0D/2D heterojunction photocatalyst for promoting photocatalytic organic pollutant degradation. Chemical Engineering Journal, 2020, 396, 125343.	6.6	132
36	Hybrid architectures based on noble metals and carbon-based dots nanomaterials: A review of recent progress in synthesis and applications. Chemical Engineering Journal, 2020, 399, 125743.	6.6	70

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37	Graphdiyne: A Rising Star of Electrocatalyst Support for Energy Conversion. Advanced Energy Materials, 2020, 10, 2000177.	10.2	100
38	Silver-based semiconductor Z-scheme photocatalytic systems for environmental purification. Journal of Hazardous Materials, 2020, 390, 122128.	6.5	122
39	Strategy to improve gold nanoparticles loading efficiency on defect-free high silica ZSM-5 zeolite for the reduction of nitrophenols. Chemosphere, 2020, 256, 127083.	4.2	57
40	How does the microenvironment change during the stabilization of cadmium in exogenous remediation sediment?. Journal of Hazardous Materials, 2020, 398, 122836.	6.5	21
41	Hierarchical porous carbon material restricted Au catalyst for highly catalytic reduction of nitroaromatics. Journal of Hazardous Materials, 2019, 380, 120864.	6.5	110
42	Chloro-phosphate impregnated biochar prepared by co-precipitation for the lead, cadmium and copper synergic scavenging from aqueous solution. Bioresource Technology, 2019, 293, 122102.	4.8	50
43	Electrochemical biosensor for amplified detection of Pb2+ based on perfect match of reduced graphene oxideâ€“gold nanoparticles and single-stranded DNAzyme. Analytical and Bioanalytical Chemistry, 2019, 411, 7499-7509.	1.9	14
44	Recent advances in covalent organic frameworks (COFs) as a smart sensing material. Chemical Society Reviews, 2019, 48, 5266-5302.	18.7	630
45	Multiple charge-carrier transfer channels of Z-scheme bismuth tungstate-based photocatalyst for tetracycline degradation: Transformation pathways and mechanism. Journal of Colloid and Interface Science, 2019, 555, 770-782.	5.0	45
46	Black Phosphorus, a Rising Star 2D Nanomaterial in the Postâ€Graphene Era: Synthesis, Properties, Modifications, and Photocatalysis Applications. Small, 2019, 15, e1804565.	5.2	244
47	Chitosan functionalized activated coke for Au nanoparticles anchoring: Green synthesis and catalytic activities in hydrogenation of nitrophenols and azo dyes. Applied Catalysis B: Environmental, 2019, 255, 117740.	10.8	197
48	Peroxidaseâ€Like Activity of Smart Nanomaterials and Their Advanced Application in Colorimetric Glucose Biosensors. Small, 2019, 15, e1900133.	5.2	145
49	Decontamination of lead and tetracycline from aqueous solution by a promising carbonaceous nanocomposite: Interaction and mechanisms insight. Bioresource Technology, 2019, 283, 277-285.	4.8	98
50	Synergistic effect of artificial enzyme and 2D nano-structured Bi2WO6 for eco-friendly and efficient biomimetic photocatalysis. Applied Catalysis B: Environmental, 2019, 250, 52-62.	10.8	340
51	Recent progress in covalent organic framework thin films: fabrications, applications and perspectives. Chemical Society Reviews, 2019, 48, 488-516.	18.7	564
52	Colorimetric determination of mercury(II) using gold nanoparticles and double ligand exchange. Mikrochimica Acta, 2019, 186, 31.	2.5	38
53	Rational design 2D/2D BiOBr/CDs/g-C3N4 Z-scheme heterojunction photocatalyst with carbon dots as solid-state electron mediators for enhanced visible and NIR photocatalytic activity: Kinetics, intermediates, and mechanism insight. Journal of Catalysis, 2019, 369, 469-481.	3.1	285
54	Au nanoparticles decorated on activated coke via a facile preparation for efficient catalytic reduction of nitrophenols and azo dyes. Applied Surface Science, 2019, 473, 578-588.	3.1	134

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55	Synthetic strategies and application of gold-based nanocatalysts for nitroaromatics reduction. Science of the Total Environment, 2019, 652, 93-116.	3.9	44
56	Nano-structured bismuth tungstate with controlled morphology: Fabrication, modification, environmental application and mechanism insight. Chemical Engineering Journal, 2019, 358, 480-496.	6.6	185
57	Investigating the adsorption behavior and the relative distribution of Cd2+ sorption mechanisms on biochars by different feedstock. Bioresource Technology, 2018, 261, 265-271.	4.8	278
58	Preparation of water-compatible molecularly imprinted thiol-functionalized activated titanium dioxide: Selective adsorption and efficient photodegradation of 2, 4-dinitrophenol in aqueous solution. Journal of Hazardous Materials, 2018, 346, 113-123.	6.5	146
59	Remediation of lead-contaminated sediment by biochar-supported nano-chlorapatite: Accompanied with the change of available phosphorus and organic matters. Journal of Hazardous Materials, 2018, 348, 109-116.	6.5	128
60	Electrochemical Aptasensor Based on Sulfurâ€“Nitrogen Codoped Ordered Mesoporous Carbon and Thymineâ€“Hg²⁺â€“Thymine Mismatch Structure for Hg²⁺ Detection. ACS Sensors, 2018, 3, 2566-2573.	4.0	137
61	Facile Hydrothermal Synthesis of Z-Scheme Bi₂Fe₄O₉/Bi₂WO₆ Heterojunction Photocatalyst with Enhanced Visible Light Photocatalytic Activity. ACS Applied Materials & Interfaces, 2018, 10, 18824-18836.	4.0	397
62	Selective prepared carbon nanomaterials for advanced photocatalytic application in environmental pollutant treatment and hydrogen production. Applied Catalysis B: Environmental, 2018, 239, 408-424.	10.8	386
63	A review of titanium dioxide and its highlighted application in molecular imprinting technology in environment. Journal of the Taiwan Institute of Chemical Engineers, 2018, 91, 517-531.	2.7	34
64	Chitosan-wrapped gold nanoparticles for hydrogen-bonding recognition and colorimetric determination of the antibiotic kanamycin. Mikrochimica Acta, 2017, 184, 2097-2105.	2.5	79
65	Fabrication of water-compatible molecularly imprinted polymer based on Î²-cyclodextrin modified magnetic chitosan and its application for selective removal of bisphenol A from aqueous solution. Journal of the Taiwan Institute of Chemical Engineers, 2017, 77, 113-121.	2.7	69
66	Environment-friendly fullerene separation methods. Chemical Engineering Journal, 2017, 330, 134-145.	6.6	73
67	Synthesis of surface molecular imprinted TiO2/graphene photocatalyst and its highly efficient photocatalytic degradation of target pollutant under visible light irradiation. Applied Surface Science, 2016, 390, 368-376.	3.1	242
68	Efficacy of carbonaceous nanocomposites for sorbing ionizable antibiotic sulfamethazine from aqueous solution. Water Research, 2016, 95, 103-112.	5.3	326
69	Nanoporous Au-based chronocoulometric aptasensor for amplified detection of Pb2+ using DNAzyme modified with Au nanoparticles. Biosensors and Bioelectronics, 2016, 81, 61-67.	5.3	126
70	Sensitive and selective detection of mercury ions based on papain and 2,6-pyridinedicarboxylic acid functionalized gold nanoparticles. RSC Advances, 2016, 6, 3259-3266.	1.7	33
71	Hydroxyl radicals based advanced oxidation processes (AOPs) for remediation of soils contaminated with organic compounds: A review. Chemical Engineering Journal, 2016, 284, 582-598.	6.6	919
72	Application of molecularly imprinted polymers in wastewater treatment: a review. Environmental Science and Pollution Research, 2015, 22, 963-977.	2.7	208

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73	Synthesis of goldâ€“cellobiose nanocomposites for colorimetric measurement of cellobiase activity. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 132, 369-374.	2.0	16
74	Utilization of nano-gold tracing technique: Study the adsorption and transmission of laccase in mediator-involved enzymatic degradation of lignin during solid-state fermentation. Biochemical Engineering Journal, 2014, 91, 149-156.	1.8	22
75	Functionalized Gold Nanoparticles for Visual Determination of Dopamine in Biological Fluids. ACS Applied Nano Materials, 0, , .	2.4	4