Shaobin Wang

List of Publications by Citations

595 papers	49,847 citations	127 h-index	194 g-index
613 ext. papers	60,686 ext. citations	9.7 avg, IF	8.43 L-index

#	Paper	IF	Citations
595	Natural zeolites as effective adsorbents in water and wastewater treatment. *Chemical Engineering Journal*, **2010**, 156, 11-24	14.7	1294
594	Removal of dyes from aqueous solution using fly ash and red mud. *Water Research*, **2005**, 39, 129-38	12.5	665
593	Carbon Dioxide Reforming of Methane To Produce Synthesis Gas over Metal-Supported Catalysts: State of the Art. *Energy & Fuels*, **1996**, 10, 896-904	4.1	577
592	Metal-Free Carbocatalysis in Advanced Oxidation Reactions. *Accounts of Chemical Research*, **2018**, 51, 678-687	24.3	573
591	Ordered mesoporous materials for drug delivery. *Microporous and Mesoporous Materials*, **2009**, 117, 1-9	5.3	532
590	N-Doping-Induced Nonradical Reaction on Single-Walled Carbon Nanotubes for Catalytic Phenol Oxidation. *ACS Catalysis*, **2015**, 5, 553-559	13.1	525
589	Reduced graphene oxide for catalytic oxidation of aqueous organic pollutants. *ACS Applied Materials & Interfaces*, **2012**, 4, 5466-71	9.5	517
588	Adsorptive remediation of environmental pollutants using novel graphene-based nanomaterials. *Chemical Engineering Journal*, **2013**, 226, 336-347	14.7	508
587	Volatile organic compounds in indoor environment and photocatalytic oxidation: state of the art. *Environment International*, **2007**, 33, 694-705	12.9	489
586	Synthesis, characterization, and adsorption properties of magnetic Fe3O4@graphene nanocomposite. *Chemical Engineering Journal*, **2012**, 184, 326-332	14.7	477
585	Nitrogen-doped graphene for generation and evolution of reactive radicals by metal-free catalysis. *ACS Applied Materials & Interfaces*, **2015**, 7, 4169-78	9.5	471
584	Catalytic Removal of Aqueous Contaminants on N-Doped Graphitic Biochars: Inherent Roles of Adsorption and Nonradical Mechanisms. *Environmental Science & Technology*, **2018**, 52, 8649-8658	10.3	460
583	Insights into Heterogeneous Catalysis of Persulfate Activation on Dimensional-Structured Nanocarbons. *ACS Catalysis*, **2015**, 5, 4629-4636	13.1	450
582	Sulfur and Nitrogen Co-Doped Graphene for Metal-Free Catalytic Oxidation Reactions. *Small*, **2015**, 11, 3036-44	11	412
581	A Comparative study of Fenton and Fenton-like reaction kinetics in decolourisation of wastewater. *Dyes and Pigments*, **2008**, 76, 714-720	4.6	410
580	Persulfate Activation on Crystallographic Manganese Oxides: Mechanism of Singlet Oxygen Evolution for Nonradical Selective Degradation of Aqueous Contaminants. *Environmental Science & Technology*, **2019**, 53, 307-315	10.3	408
579	Nonradical reactions in environmental remediation processes: Uncertainty and challenges. *Applied Catalysis B: Environmental*, **2018**, 224, 973-982	21.8	397

578	Occurrence of radical and nonradical pathways from carbocatalysts for aqueous and nonaqueous catalytic oxidation. *Applied Catalysis B: Environmental*, **2016**, 188, 98-105	21.8	386
577	Role of CeO2 in Ni/CeO2–Al2O3 catalysts for carbon dioxide reforming of methane. *Applied Catalysis B: Environmental*, **1998**, 19, 267-277	21.8	370
576	Magnetic recoverable MnFe2O4 and MnFe2O4-graphene hybrid as heterogeneous catalysts of peroxymonosulfate activation for efficient degradation of aqueous organic pollutants. *Journal of Hazardous Materials*, **2014**, 270, 61-70	12.8	362
575	Novel applications of red mud as coagulant, adsorbent and catalyst for environmentally benign processes. *Chemosphere*, **2008**, 72, 1621-35	8.4	352
574	Environmental-benign utilisation of fly ash as low-cost adsorbents. *Journal of Hazardous Materials*, **2006**, 136, 482-501	12.8	347
573	A review on photocatalysis for air treatment: From catalyst development to reactor design. *Chemical Engineering Journal*, **2017**, 310, 537-559	14.7	335
572	Different crystallographic one-dimensional MnO2 nanomaterials and their superior performance in catalytic phenol degradation. *Environmental Science & Technology*, **2013**, 47, 5882-7	10.3	335
571	Catalytic oxidation of organic pollutants on pristine and surface nitrogen-modified carbon nanotubes with sulfate radicals. *Applied Catalysis B: Environmental*, **2014**, 154-155, 134-141	21.8	333
570	Phosphate removal from wastewater using red mud. *Journal of Hazardous Materials*, **2008**, 158, 35-42	12.8	329
569	Activated carbon supported cobalt catalysts for advanced oxidation of organic contaminants in aqueous solution. *Applied Catalysis B: Environmental*, **2010**, 100, 529-534	21.8	324
568	Application of zeolite MCM-22 for basic dye removal from wastewater. *Journal of Colloid and Interface Science*, **2006**, 295, 71-8	9.3	315
567	Manganese oxides at different oxidation states for heterogeneous activation of peroxymonosulfate for phenol degradation in aqueous solutions. *Applied Catalysis B: Environmental* , **2013**, 142-143, 729-735	21.8	308
566	Recent advances in transition metal-based electrocatalysts for alkaline hydrogen evolution. *Journal of Materials Chemistry A*, **2019**, 7, 14971-15005	13	281
565	Characterisation and environmental application of an Australian natural zeolite for basic dye removal from aqueous solution. *Journal of Hazardous Materials*, **2006**, 136, 946-52	12.8	278
564	Surface controlled generation of reactive radicals from persulfate by carbocatalysis on nanodiamonds. *Applied Catalysis B: Environmental*, **2016**, 194, 7-15	21.8	277
563	Mechanistic investigation of the enhanced NH3-SCR on cobalt-decorated Ce-Ti mixed oxide: In situ FTIR analysis for structure-activity correlation. *Applied Catalysis B: Environmental*, **2017**, 200, 297-308	21.8	276
562	3D-hierarchically structured MnO2 for catalytic oxidation of phenol solutions by activation of peroxymonosulfate: Structure dependence and mechanism. *Applied Catalysis B: Environmental*, **2015**, 164, 159-167	21.8	274
561	Insights into perovskite-catalyzed peroxymonosulfate activation: Maneuverable cobalt sites for promoted evolution of sulfate radicals. *Applied Catalysis B: Environmental*, **2018**, 220, 626-634	21.8	274

560	An insight into metal organic framework derived N-doped graphene for the oxidative degradation of persistent contaminants: formation mechanism and generation of singlet oxygen from peroxymonosulfate. *Environmental Science: Nano*, **2017**, 4, 315-324	7.1	272
559	Recent advances in non-metal modification of graphitic carbon nitride for photocatalysis: a historic review. *Catalysis Science and Technology*, **2016**, 6, 7002-7023	5.5	271
558	Dye Adsorption on Layered Graphite Oxide. *Journal of Chemical & Engineering Data*, **2011**, 56, 138-141	2.8	268
557	Sulfate radicals induced from peroxymonosulfate by cobalt manganese oxides (Co(x)Mn(3-x)O4) for Fenton-Like reaction in water. *Journal of Hazardous Materials*, **2015**, 296, 128-137	12.8	266
556	Hollow carbon nanobubbles: monocrystalline MOF nanobubbles and their pyrolysis. *Chemical Science*, **2017**, 8, 3538-3546	9.4	264
555	The physical and surface chemical characteristics of activated carbons and the adsorption of methylene blue from wastewater. *Journal of Colloid and Interface Science*, **2005**, 284, 440-6	9.3	258
554	CO2 reforming of methane on Ni catalysts: Effects of the support phase and preparation technique. *Applied Catalysis B: Environmental*, **1998**, 16, 269-277	21.8	252
553	Magnetic core-shell CuFe2O4@C3N4 hybrids for visible light photocatalysis of Orange II. *Journal of Hazardous Materials*, **2015**, 297, 224-33	12.8	249
552	Facile synthesis of nitrogen doped reduced graphene oxide as a superior metal-free catalyst for oxidation. *Chemical Communications*, **2013**, 49, 9914-6	5.8	248
551	A novel lanthanum-modified bentonite, Phoslock, for phosphate removal from wastewaters. *Applied Clay Science*, **2009**, 46, 369-375	5.2	248
550	Wettability alteration of oil-wet carbonate by silica nanofluid. *Journal of Colloid and Interface Science*, **2016**, 461, 435-442	9.3	247
549	Fe, Co, Ni nanocrystals encapsulated in nitrogen-doped carbon nanotubes as Fenton-like catalysts for organic pollutant removal. *Journal of Hazardous Materials*, **2016**, 314, 129-139	12.8	245
548	Identification and Regulation of Active Sites on Nanodiamonds: Establishing a Highly Efficient Catalytic System for Oxidation of Organic Contaminants. *Advanced Functional Materials*, **2018**, 28, 1705295	15.6	238
547	Facile assembly of Bi2O3/Bi2S3/MoS2 n-p heterojunction with layered n-Bi2O3 and p-MoS2 for enhanced photocatalytic water oxidation and pollutant degradation. *Applied Catalysis B: Environmental*, **2017**, 200, 47-55	21.8	234
546	Nanocarbons in different structural dimensions (0–3D) for phenol adsorption and metal-free catalytic oxidation. *Applied Catalysis B: Environmental*, **2015**, 179, 352-362	21.8	220
545	0D (MoS2)/2D (g-C3N4) heterojunctions in Z-scheme for enhanced photocatalytic and electrochemical hydrogen evolution. *Applied Catalysis B: Environmental*, **2018**, 228, 64-74	21.8	220
544	Unveiling the active sites of graphene-catalyzed peroxymonosulfate activation. *Carbon*, **2016**, 107, 371-378	10.4	219
543	Oxidative degradation of dyes in water using Co2+/H2O2 and Co2+/peroxymonosulfate. *Journal of Hazardous Materials*, **2010**, 178, 385-9	12.8	214

542	Hydrothermal Synthesis of Co3O4□Graphene for Heterogeneous Activation of Peroxymonosulfate for Decomposition of Phenol. *Industrial & Engineering Chemistry Research*, **2012**, 51, 14958-14965	3.9	213
541	Facile synthesis of nitrogen-doped graphene via low-temperature pyrolysis: The effects of precursors and annealing ambience on metal-free catalytic oxidation. *Carbon*, **2017**, 115, 649-658	10.4	209
540	Activation of Peroxydisulfate on Carbon Nanotubes: Electron-Transfer Mechanism. *Environmental Science & Technology*, **2019**, 53, 14595-14603	10.3	203
539	A comparative study of dye removal using fly ash treated by different methods. *Chemosphere*, **2005**, 60, 1401-7	8.4	200
538	A new magnetic nano zero-valent iron encapsulated in carbon spheres for oxidative degradation of phenol. *Applied Catalysis B: Environmental*, **2015**, 172-173, 73-81	21.8	198
537	Iron encapsulated in boron and nitrogen codoped carbon nanotubes as synergistic catalysts for Fenton-like reaction. *Water Research*, **2016**, 101, 281-291	12.5	197
536	Insights into N-doping in single-walled carbon nanotubes for enhanced activation of superoxides: a mechanistic study. *Chemical Communications*, **2015**, 51, 15249-52	5.8	195
535	Geopolymeric adsorbents from fly ash for dye removal from aqueous solution. *Journal of Colloid and Interface Science*, **2006**, 300, 52-9	9.3	195
534	Application of solid ash based catalysts in heterogeneous catalysis. *Environmental Science & Technology*, **2008**, 42, 7055-63	10.3	192
533	Activation of peroxymonosulfate by carbonaceous oxygen groups: experimental and density functional theory calculations. *Applied Catalysis B: Environmental*, **2016**, 198, 295-302	21.8	192
532	The Intrinsic Nature of Persulfate Activation and N-Doping in Carbocatalysis. *Environmental Science & Technology*, **2020**, 54, 6438-6447	10.3	188
531	Mixed Conducting Perovskite Materials as Superior Catalysts for Fast Aqueous-Phase Advanced Oxidation: A Mechanistic Study. *ACS Catalysis*, **2017**, 7, 388-397	13.1	186
530	Excellent performance of mesoporous Co3O4/MnO2 nanoparticles in heterogeneous activation of peroxymonosulfate for phenol degradation in aqueous solutions. *Applied Catalysis B: Environmental*, **2012**, 127, 330-335	21.8	185
529	Competitive adsorption of malachite green and Pb ions on natural zeolite. *Journal of Colloid and Interface Science*, **2007**, 314, 25-31	9.3	183
528	Cobalt exchanged zeolites for heterogeneous catalytic oxidation of phenol in the presence of peroxymonosulphate. *Applied Catalysis B: Environmental*, **2010**, 99, 163-169	21.8	181
527	A Comprehensive Study on Carbon Dioxide Reforming of Methane over Ni/□Al2O3 Catalysts. *Industrial & Engineering Chemistry Research*, **1999**, 38, 2615-2625	3.9	180
526	Z-scheme plasmonic Ag decorated WO3/Bi2WO6 hybrids for enhanced photocatalytic abatement of chlorinated-VOCs under solar light irradiation. *Applied Catalysis B: Environmental*, **2019**, 242, 76-84	21.8	179
525	Magnetic ZnFe2O4□C3N4 Hybrid for Photocatalytic Degradation of Aqueous Organic Pollutants by Visible Light. *Industrial & Engineering Chemistry Research*, **2014**, 53, 17294-17302	3.9	177

524	Nanosize Zr-metal organic framework (UiO-66) for hydrogen and carbon dioxide storage. *Chemical Engineering Journal*, **2012**, 187, 415-420	14.7	176
523	Catalytic Conversion of Alkanes to Olefins by Carbon Dioxide Oxidative DehydrogenationA Review. *Energy & Fuels*, **2004**, 18, 1126-1139	4.1	176
522	N-doped graphitic biochars from C-phycocyanin extracted Spirulina residue for catalytic persulfate activation toward nonradical disinfection and organic oxidation. *Water Research*, **2019**, 159, 77-86	12.5	175
521	Fabrication of Fe3O4/SiO2 core/shell nanoparticles attached to graphene oxide and its use as an adsorbent. *Journal of Colloid and Interface Science*, **2012**, 379, 20-6	9.3	175
520	Insights into the Electron-Transfer Regime of Peroxydisulfate Activation on Carbon Nanotubes: The Role of Oxygen Functional Groups. *Environmental Science & Technology*, **2020**, 54, 1267-1275	10.3	169
519	Dehydrogenation of ethane with carbon dioxide over supported chromium oxide catalysts. *Applied Catalysis A: General*, **2000**, 196, 1-8	5.1	167
518	Nano-Fe□encapsulated in microcarbon spheres: synthesis, characterization, and environmental applications. *ACS Applied Materials & Interfaces*, **2012**, 4, 6235-41	9.5	166
517	New insights into heterogeneous generation and evolution processes of sulfate radicals for phenol degradation over one-dimensional □MnO2 nanostructures. *Chemical Engineering Journal*, **2015**, 266, 12-20	14.7	165
516	Synthesis of porous reduced graphene oxide as metal-free carbon for adsorption and catalytic oxidation of organics in water. *Journal of Materials Chemistry A*, **2013**, 1, 5854	13	164
515	Single-atom catalysis in advanced oxidation processes for environmental remediation. *Chemical Society Reviews*, **2021**, 50, 5281-5322	58.5	164
514	Nitrogen- and Sulfur-Codoped Hierarchically Porous Carbon for Adsorptive and Oxidative Removal of Pharmaceutical Contaminants. *ACS Applied Materials & Interfaces*, **2016**, 8, 7184-93	9.5	162
513	AMP-activated protein kinase, stress responses and cardiovascular diseases. *Clinical Science*, **2012**, 122, 555-73	6.5	162
512	Synergistic and competitive adsorption of organic dyes on multiwalled carbon nanotubes. *Chemical Engineering Journal*, **2012**, 197, 34-40	14.7	161
511	Reforming of methane with carbon dioxide over Ni/Al2O3 catalysts: Effect of nickel precursor. *Applied Catalysis A: General*, **1998**, 169, 271-280	5.1	161
510	A comparative study of reduced graphene oxide modified TiO2, ZnO and Ta2O5 in visible light photocatalytic/photochemical oxidation of methylene blue. *Applied Catalysis B: Environmental*, **2014**, 146, 162-168	21.8	160
509	Graphene facilitated visible light photodegradation of methylene blue over titanium dioxide photocatalysts. *Chemical Engineering Journal*, **2013**, 214, 298-303	14.7	160
508	Heterogeneous activation of peroxymonosulfate by amorphous boron for degradation of bisphenol S. *Journal of Hazardous Materials*, **2017**, 322, 532-539	12.8	160
507	Layer structured graphite oxide as a novel adsorbent for humic acid removal from aqueous solution. *Journal of Colloid and Interface Science*, **2009**, 333, 114-9	9.3	160

506	Removal of emulsified oil from oily wastewater using agricultural waste barley straw. *Biochemical Engineering Journal*, **2010**, 49, 78-83	4.2	159
505	Solid-state conversion of fly ash to effective adsorbents for Cu removal from wastewater. *Journal of Hazardous Materials*, **2007**, 139, 254-9	12.8	159
504	Nanodiamonds in sp2/sp3 configuration for radical to nonradical oxidation: Core-shell layer dependence. *Applied Catalysis B: Environmental*, **2018**, 222, 176-181	21.8	157
503	Efficient Catalytic Ozonation over Reduced Graphene Oxide for p-Hydroxylbenzoic Acid (PHBA) Destruction: Active Site and Mechanism. *ACS Applied Materials & Interfaces*, **2016**, 8, 9710-20	9.5	157
502	Shape-controlled activation of peroxymonosulfate by single crystal α-Mn2O3 for catalytic phenol degradation in aqueous solution. *Applied Catalysis B: Environmental*, **2014**, 154-155, 246-251	21.8	157
501	Low temperature combustion synthesis of nitrogen-doped graphene for metal-free catalytic oxidation. *Journal of Materials Chemistry A*, **2015**, 3, 3432-3440	13	156
500	2D/2D nano-hybrids of δ-MnO2 on reduced graphene oxide for catalytic ozonation and coupling peroxymonosulfate activation. *Journal of Hazardous Materials*, **2016**, 301, 56-64	12.8	153
499	Coal ash conversion into effective adsorbents for removal of heavy metals and dyes from wastewater. *Journal of Hazardous Materials*, **2006**, 133, 243-51	12.8	153
498	N-Doped Graphene from Metal-Organic Frameworks for Catalytic Oxidation of p-Hydroxylbenzoic Acid: N-Functionality and Mechanism. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 2693-2701	8.3	152
497	Sensitive and selective determination of aqueous triclosan based on gold nanoparticles on polyoxometalate/reduced graphene oxide nanohybrid. *RSC Advances*, **2015**, 5, 65953-65962	3.7	150
496	One-pot approach for synthesis of N-doped TiO2/ZnFe2O4 hybrid as an efficient photocatalyst for degradation of aqueous organic pollutants. *Journal of Hazardous Materials*, **2015**, 291, 28-37	12.8	150
495	ZnO/montmorillonite for photocatalytic and photochemical degradation of methylene blue. *Applied Clay Science*, **2011**, 53, 553-560	5.2	149
494	A new metal-free carbon hybrid for enhanced photocatalysis. *ACS Applied Materials & Interfaces*, **2014**, 6, 16745-54	9.5	144
493	A comparative study of spinel structured Mn3O4, Co3O4 and Fe3O4 nanoparticles in catalytic oxidation of phenolic contaminants in aqueous solutions. *Journal of Colloid and Interface Science*, **2013**, 407, 467-73	9.3	143
492	Nanosized Co3O4/SiO2 for heterogeneous oxidation of phenolic contaminants in waste water. *Separation and Purification Technology*, **2011**, 77, 230-236	8.3	143
491	Excellent performance of copper based metal organic framework in adsorptive removal of toxic sulfonamide antibiotics from wastewater. *Journal of Colloid and Interface Science*, **2016**, 478, 344-52	9.3	142
490	Facile Synthesis of Mn3O4-Reduced Graphene Oxide Hybrids for Catalytic Decomposition of Aqueous Organics. *Industrial & Engineering Chemistry Research*, **2013**, 52, 3637-3645	3.9	142
489	Nitrogen-doped bamboo-like carbon nanotubes with Ni encapsulation for persulfate activation to remove emerging contaminants with excellent catalytic stability. *Chemical Engineering Journal*, **2018**, 332, 398-408	14.7	141

488	Bread-making synthesis of hierarchically Co@C nanoarchitecture in heteroatom doped porous carbons for oxidative degradation of emerging contaminants. *Applied Catalysis B: Environmental*, **2018**, 225, 76-83	21.8	141
487	Co3O4 quantum dots/TiO2 nanobelt hybrids for highly efficient photocatalytic overall water splitting. *Applied Catalysis B: Environmental*, **2018**, 236, 396-403	21.8	141
486	Degradation of Cosmetic Microplastics via Functionalized Carbon Nanosprings. *Matter*, **2019**, 1, 745-758	12.7	140
485	Kinetic modelling and mechanism of dye adsorption on unburned carbon. *Dyes and Pigments*, **2007**, 72, 308-314	4.6	139
484	Adsorptive removal of antibiotic sulfonamide by UiO-66 and ZIF-67 for wastewater treatment. *Journal of Colloid and Interface Science*, **2017**, 500, 88-95	9.3	137
483	Upconversion carbon quantum dots as visible light responsive component for efficient enhancement of photocatalytic performance. *Journal of Colloid and Interface Science*, **2017**, 496, 425-433	9.3	135
482	Carbocatalytic activation of persulfate for removal of antibiotics in water solutions. *Chemical Engineering Journal*, **2016**, 288, 399-405	14.7	135
481	Potential Difference Driving Electron Transfer Defective Carbon Nanotubes toward Selective Oxidation of Organic Micropollutants. *Environmental Science & Technology*, **2020**, 54, 8464-8472	10.3	133
480	CuInS2 quantum dots embedded in Bi2WO6 nanoflowers for enhanced visible light photocatalytic removal of contaminants. *Applied Catalysis B: Environmental*, **2018**, 221, 215-222	21.8	133
479	Heteroatom (N or N-S)-Doping Induced Layered and Honeycomb Microstructures of Porous Carbons for CO2 Capture and Energy Applications. *Advanced Functional Materials*, **2016**, 26, 8651-8661	15.6	133
478	Magnetic Fe3O4/carbon sphere/cobalt composites for catalytic oxidation of phenol solutions with sulfate radicals. *Chemical Engineering Journal*, **2014**, 245, 1-9	14.7	133
477	Effects of acidic treatments on the pore and surface properties of Ni catalyst supported on activated carbon. *Carbon*, **1998**, 36, 283-292	10.4	133
476	Facile synthesis of hierarchically structured magnetic MnO2/ZnFe2O4 hybrid materials and their performance in heterogeneous activation of peroxymonosulfate. *ACS Applied Materials & Interfaces*, **2014**, 6, 19914-23	9.5	132
475	Halogen element modified titanium dioxide for visible light photocatalysis. *Chemical Engineering Journal*, **2010**, 162, 437-447	14.7	131
474	MIL-101(Fe)/g-C3N4 for enhanced visible-light-driven photocatalysis toward simultaneous reduction of Cr(VI) and oxidation of bisphenol A in aqueous media. *Applied Catalysis B: Environmental*, **2020**, 272, 119033	21.8	131
473	Physical and chemical activation of reduced graphene oxide for enhanced adsorption and catalytic oxidation. *Nanoscale*, **2014**, 6, 766-71	7.7	129
472	Facile synthesis of carbon-doped mesoporous anatase TiO for the enhanced visible-light driven photocatalysis. *Chemical Communications*, **2014**, 50, 13971-4	5.8	128
471	Co3O4 nanocrystals with predominantly exposed facets: synthesis, environmental and energy applications. *Journal of Materials Chemistry A*, **2013**, 1, 14427	13	128

470	Removal of emulsified food and mineral oils from wastewater using surfactant modified barley straw. *Bioresource Technology*, **2009**, 100, 5744-9	11	128
469	Adsorption and heterogeneous advanced oxidation of phenolic contaminants using Fe loaded mesoporous SBA-15 and H2O2. *Chemical Engineering Journal*, **2010**, 164, 255-260	14.7	127
468	Surface-tailored nanodiamonds as excellent metal-free catalysts for organic oxidation. *Carbon*, **2016**, 103, 404-411	10.4	127
467	Rational Catalyst Design for N2 Reduction under Ambient Conditions: Strategies toward Enhanced Conversion Efficiency. *ACS Catalysis*, **2020**, 10, 6870-6899	13.1	126
466	Physical and chemical regeneration of zeolitic adsorbents for dye removal in wastewater treatment. *Chemosphere*, **2006**, 65, 82-7	8.4	126
465	Ferric carbide nanocrystals encapsulated in nitrogen-doped carbon nanotubes as an outstanding environmental catalyst. *Environmental Science: Nano*, **2017**, 4, 170-179	7.1	125
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463	Research progress and materials selection guidelines on mixed conducting perovskite-type ceramic membranes for oxygen production. *RSC Advances*, **2011**, 1, 1661	3.7	123
462	Black NiO-TiO2 nanorods for solar photocatalysis: Recognition of electronic structure and reaction mechanism. *Applied Catalysis B: Environmental*, **2018**, 224, 705-714	21.8	121
461	Synthesis of Magnetic Cobalt Nanoparticles Anchored on Graphene Nanosheets and Catalytic Decomposition of Orange II. *Industrial & Engineering Chemistry Research*, **2013**, 52, 17341-17350	3.9	120
460	Porous Carbons: Structure-Oriented Design and Versatile Applications. *Advanced Functional Materials*, **2020**, 30, 1909265	15.6	119
459	One-pot hydrothermal synthesis of ZnO-reduced graphene oxide composites using Zn powders for enhanced photocatalysis. *Chemical Engineering Journal*, **2013**, 229, 533-539	14.7	119
458	Surfactant modified barley straw for removal of acid and reactive dyes from aqueous solution. *Bioresource Technology*, **2009**, 100, 4292-5	11	119
457	Disordered Atomic Packing Structure of Metallic Glass: Toward Ultrafast Hydroxyl Radicals Production Rate and Strong Electron Transfer Ability in Catalytic Performance. *Advanced Functional Materials*, **2017**, 27, 1702258	15.6	118
456	Adsorptive and photocatalytic removal of reactive dyes by silver nanoparticle-colemanite ore waste. *Chemical Engineering Journal*, **2014**, 242, 333-340	14.7	117
455	Removal of heavy metals by biosorption. *Environmental Chemistry Letters*, **2012**, 10, 109-117	13.3	117
454	One-pot synthesis of N-doped graphene for metal-free advanced oxidation processes. *Carbon*, **2016** , 102, 279-287	10.4	115
453	Single and co-adsorption of heavy metals and humic acid on fly ash. *Separation and Purification Technology*, **2008**, 58, 353-358	8.3	114

452	Batch and column studies of phosphate and nitrate adsorption on waste solids containing boron impurity. *Chemical Engineering Journal*, **2013**, 222, 108-119	14.7	113
451	Estimate of sulfur, arsenic, mercury, fluorine emissions due to spontaneous combustion of coal gangue: An important part of Chinese emission inventories. *Environmental Pollution*, **2016**, 209, 107-13	9.3	112
450	Dye adsorption on unburned carbon: kinetics and equilibrium. *Journal of Hazardous Materials*, **2005**, 126, 71-7	12.8	110
449	MnO2 activation of peroxymonosulfate for catalytic phenol degradation in aqueous solutions. *Catalysis Communications*, **2012**, 26, 144-148	3.2	108
448	Adsorption of Cu(II), Pb(II) and humic acid on natural zeolite tuff in single and binary systems. *Separation and Purification Technology*, **2008**, 62, 64-70	8.3	108
447	Boosting Fenton-Like Reactions via Single Atom Fe Catalysis. *Environmental Science & Technology*, **2019**, 53, 11391-11400	10.3	105
446	Phosphorous doped carbon nitride nanobelts for photodegradation of emerging contaminants and hydrogen evolution. *Applied Catalysis B: Environmental*, **2019**, 257, 117931	21.8	105
445	Coal fly ash supported Co3O4 catalysts for phenol degradation using peroxymonosulfate. *RSC Advances*, **2012**, 2, 5645	3.7	104
444	Structure directed reversible adsorption of organic dye on mesoporous silica in aqueous solution. *Microporous and Mesoporous Materials*, **2006**, 97, 21-26	5.3	104
443	Recent progress in g-C3N4 quantum dots: synthesis, properties and applications in photocatalytic degradation of organic pollutants. *Journal of Materials Chemistry A*, **2020**, 8, 485-502	13	103
442	Magnetic nitrogen-doped nanocarbons for enhanced metal-free catalytic oxidation: Integrated experimental and theoretical investigations for mechanism and application. *Chemical Engineering Journal*, **2018**, 354, 507-516	14.7	102
441	Characteristics of coal fly ash and adsorption application. *Fuel*, **2008**, 87, 3469-3473	7.1	102
440	Oxygen Vacancies in Shape Controlled CuO/Reduced Graphene Oxide/InO Hybrid for Promoted Photocatalytic Water Oxidation and Degradation of Environmental Pollutants. *ACS Applied Materials & Interfaces*, **2017**, 9, 11678-11688	9.5	101
439	Flower-like MoS2 on graphitic carbon nitride for enhanced photocatalytic and electrochemical hydrogen evolutions. *Applied Catalysis B: Environmental*, **2018**, 239, 334-344	21.8	100
438	Synthesis of Fe2O3 loaded porous g-C3N4 photocatalyst for photocatalytic reduction of dinitrogen to ammonia. *Chemical Engineering Journal*, **2019**, 373, 572-579	14.7	99
437	Photocatalytic oxidation of phenolic compounds using zinc oxide and sulphate radicals under artificial solar light. *Separation and Purification Technology*, **2010**, 70, 338-344	8.3	99
436	Monodisperse Co3O4 quantum dots on porous carbon nitride nanosheets for enhanced visible-light-driven water oxidation. *Applied Catalysis B: Environmental*, **2018**, 223, 2-9	21.8	97
435	CeO2 nanocrystal-modified layered MoS2/g-C3N4 as 0D/2D ternary composite for visible-light photocatalytic hydrogen evolution: Interfacial consecutive multi-step electron transfer and enhanced H2O reactant adsorption. *Applied Catalysis B: Environmental*, **2019**, 259, 118072	21.8	97

434	A novel electrochemical sensor based on calixarene functionalized reduced graphene oxide: Application to simultaneous determination of Fe(III), Cd(II) and Pb(II) ions. *Journal of Colloid and Interface Science*, **2017**, 508, 525-531	9.3	97
433	Membrane fouling and wetting in a DCMD process for RO brine concentration. *Desalination*, **2014**, 344, 97-107	10.3	97
432	A Comparative Study on the Adsorption of Acid and Reactive Dyes on Multiwall Carbon Nanotubes in Single and Binary Dye Systems. *Journal of Chemical & Engineering Data*, **2012**, 57, 1563-1569	2.8	95
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