Shijian Yang

List of Publications by Year
in descending order

87 papers	6,204 citations	61984 43 h-index	69250 77 g-index
87 all docs	87 docs citations	87 times ranked	3073 citing authors

#	Article	IF	Citations
1	Low temperature selective catalytic reduction of NO with NH3 over Mnâ€“Fe spinel: Performance, mechanism and kinetic study. Applied Catalysis B: Environmental, 2011, 110, 71-80.	20.2	429
2	Novel effect of SO2 on the SCR reaction over CeO2: Mechanism and significance. Applied Catalysis B: Environmental, 2013, 136-137, 19-28.	20.2	312
3	Mechanism of N₂O Formation during the Low-Temperature Selective Catalytic Reduction of NO with NH₃ over Mnâ€“Fe Spinel. Environmental Science & Technology, 2014, 48, 10354-10362.	10.0	225
4	Capture of gaseous elemental mercury from flue gas using a magnetic and sulfur poisoning resistant sorbent Mn/Î³-Fe2O3 at lower temperatures. Journal of Hazardous Materials, 2011, 186, 508-515.	12.4	206
5	Catalytic Oxidation of Elemental Mercury over the Modified Catalyst Mn/Î±-Al₂O₃ at Lower Temperatures. Environmental Science & Technology, 2010, 44, 426-431.	10.0	205
6	MnO supported on Feâ€“Ti spinel: A novel Mn based low temperature SCR catalyst with a high N2 selectivity. Applied Catalysis B: Environmental, 2016, 181, 570-580.	20.2	199
7	Feâ€“Ti spinel for the selective catalytic reduction of NO with NH3: Mechanism and structureâ€“activity relationship. Applied Catalysis B: Environmental, 2012, 117-118, 73-80.	20.2	178
8	Dispersion of tungsten oxide on SCR performance of V2O5WO3/TiO2: Acidity, surface species and catalytic activity. Chemical Engineering Journal, 2013, 225, 520-527.	12.7	177
9	Decolorization of methylene blue by heterogeneous Fenton reaction using Fe3â^'xTixO4 (0â‰¤xâ‰¤0.78) at neutral pH values. Applied Catalysis B: Environmental, 2009, 89, 527-535.	20.2	170
10	Remarkable effect of the incorporation of titanium on the catalytic activity and SO2 poisoning resistance of magnetic Mnâ€“Fe spinel for elemental mercury capture. Applied Catalysis B: Environmental, 2011, 101, 698-708.	20.2	167
11	Gaseous Elemental Mercury Capture from Flue Gas Using Magnetic Nanosized (Fe_{3-<i>x</i>}Mn_{<i>x</i>})_{1-Î´}O₄. Environmental Science & Technology, 2011, 45, 1540-1546.	10.0	161
12	Recyclable Naturally Derived Magnetic Pyrrhotite for Elemental Mercury Recovery from Flue Gas. Environmental Science & Technology, 2016, 50, 10562-10569.	10.0	140
13	Nanosized Cation-Deficient Feâ^'Ti Spinel: A Novel Magnetic Sorbent for Elemental Mercury Capture from Flue Gas. ACS Applied Materials & Interfaces, 2011, 3, 209-217.	8.0	137
14	Quantification of crop residue burning in the field and its influence on ambient air quality in Suqian, China. Atmospheric Environment, 2008, 42, 1961-1969.	4.1	135
15	Significance of RuO₂ Modified SCR Catalyst for Elemental Mercury Oxidation in Coal-fired Flue Gas. Environmental Science & Technology, 2011, 45, 5725-5730.	10.0	126
16	The role of the Cu dopant on a Mn3O4 spinel SCR catalyst: Improvement of low-temperature activity and sulfur resistance. Chemical Engineering Journal, 2020, 387, 124090.	12.7	124
17	Improvement of the Activity of Î³-Fe₂O₃ for the Selective Catalytic Reduction of NO with NH₃ at High Temperatures: NO Reduction versus NH₃ Oxidization. Industrial & Engineering Chemistry Research, 2013, 52, 5601-5610.	3.7	118
18	Elemental Mercury Capture from Flue Gas by Magnetic Mnâ€“Fe Spinel: Effect of Chemical Heterogeneity. Industrial & Engineering Chemistry Research, 2011, 50, 9650-9656.	3.7	111

#	Article	IF	Citations
19	H₂S-Modified Feâ€“Ti Spinel: A Recyclable Magnetic Sorbent for Recovering Gaseous Elemental Mercury from Flue Gas as a Co-Benefit of Wet Electrostatic Precipitators. Environmental Science & Technology, 2017, 51, 3426-3434.	10.0	109
20	Comparison on the Performance of Î±-Fe2O3 and Î³-Fe2O3 for Selective Catalytic Reduction of Nitrogen Oxides with Ammonia. Catalysis Letters, 2013, 143, 697-704.	2.6	101
21	Novel regenerable sorbent based on Zrâ€“Mn binary metal oxides for flue gas mercury retention and recovery. Journal of Hazardous Materials, 2013, 261, 206-213.	12.4	97
22	N₂ Selectivity of NO Reduction by NH₃ over MnO_{<i>x</i>}â€“CeO₂: Mechanism and Key Factors. Journal of Physical Chemistry C, 2014, 118, 21500-21508.	3.1	92
23	Outstanding Performance of Recyclable Amorphous MoS₃ Supported on TiO₂ for Capturing High Concentrations of Gaseous Elemental Mercury: Mechanism, Kinetics, and Application. Environmental Science & Technology, 2019, 53, 4480-4489.	10.0	92
24	Photo-assisted separation of noble-metal-free oxidation and reduction cocatalysts for graphitic carbon nitride nanosheets with efficient photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2021, 280, 119456.	20.2	91
25	Substitution of WO₃in V₂O₅/WO₃â€“TiO₂by Fe₂O₃for selective catalytic reduction of NO with NH3. Catalysis Science and Technology, 2013, 3, 161-168.	4.1	90
26	The mechanism of the effect of H₂O on the low temperature selective catalytic reduction of NO with NH₃ over Mnâ€“Fe spinel. Catalysis Science and Technology, 2015, 5, 2132-2140.	4.1	84
27	Outstanding Resistance of H₂S-Modified Cu/TiO₂ to SO₂ for Capturing Gaseous Hg⁰ from Nonferrous Metal Smelting Flue Gas: Performance and Reaction Mechanism. Environmental Science & Technology, 2018, 52, 10003-10010.	10.0	84
28	Global Kinetic Study of NO Reduction by NH₃ over V₂O₅â€“WO₃/TiO₂: Relationship between the SCR Performance and the Key Factors. Industrial & Engineering Chemistry Research, 2015, 54, 11011-11023.	3.7	82
29	Promotional Effects of Ti on a CeO₂â€“MoO₃ Catalyst for the Selective Catalytic Reduction of NO_{<i>x</i>} with NH₃. ACS Applied Materials & Interfaces, 2017, 9, 16951-16958.	8.0	78
30	Competition of selective catalytic reduction and non selective catalytic reduction over MnO_x/TiO₂for NO removal: the relationship between gaseous NO concentration and N₂O selectivity. Catalysis Science and Technology, 2014, 4, 224-232.	4.1	76
31	Effect of H₂O and SO₂ on the Selective Catalytic Reduction of NO with NH₃ Over Ce/TiO₂ Catalyst: Mechanism and Kinetic Study. Journal of Physical Chemistry C, 2016, 120, 1066-1076.	3.1	70
32	Novel Effect of H₂O on the Low Temperature Selective Catalytic Reduction of NO with NH₃ over MnO_{<i>x</i>}â€"CeO₂: Mechanism and Kinetic Study. Journal of Physical Chemistry C, 2015, 119, 4180-4187.	3.1	68
33	The centralized control of elemental mercury emission from the flue gas by a magnetic rengenerable Feâ€“Tiâ€“Mn spinel. Journal of Hazardous Materials, 2015, 299, 740-746.	12.4	63
34	A highly efficient CeWO_x catalyst for the selective catalytic reduction of NO_x with NH₃. Catalysis Science and Technology, 2016, 6, 1195-1200.	4.1	63
35	Degradation of Methylene Blue by Heterogeneous Fenton Reaction Using Titanomagnetite at Neutral pH Values: Process and Affecting Factors. Industrial & Engineering Chemistry Research, 2009, 48, 9915-9921.	3.7	57
36	A novel multi-functional magnetic Feâ€“Tiâ€“V spinel catalyst for elemental mercury capture and callback from flue gas. Chemical Communications, 2010, 46, 8377.	4.1	56

#	Article	IF	Citations
37	Adjustment of operation temperature window of Mn-Ce oxide catalyst for the selective catalytic reduction of NO with NH3. Journal of Hazardous Materials, 2021, 405, 124223.	12.4	55
38	Remarkable improvement of Ti incorporation on Hg0 capture from smelting flue gas by sulfurated Î³-Fe2O3: Performance and mechanism. Journal of Hazardous Materials, 2020, 381, 120967.	12.4	54
39	A novel magnetic Feâ€“Tiâ€“V spinel catalyst for the selective catalytic reduction of NO with NH3 in a broad temperature range. Catalysis Science and Technology, 2012, 2, 915.	4.1	53
40	The co-benefit of elemental mercury oxidation and slip ammonia abatement with SCR-Plus catalysts. Fuel, 2014, 133, 263-269.	6.4	51
41	The simultaneous centralized control of elemental mercury emission and deep desulfurization from the flue gas using magnetic Mnâ€“Fe spinel as a co-benefit of the wet electrostatic precipitator. Fuel Processing Technology, 2016, 142, 345-351.	7.2	50
42	CeO2 grafted with different heteropoly acids for selective catalytic reduction of NO with NH3. Journal of Hazardous Materials, 2020, 382, 121032.	12.4	47
43	Elemental Mercury Oxidation over Feâ€“Tiâ€“Mn Spinel: Performance, Mechanism, and Reaction Kinetics. Environmental Science & Technology, 2017, 51, 531-539.	10.0	46
44	Synergistic effect and mechanism of catalytic degradation toward antibiotic contaminants by amorphous goethite nanoparticles decorated graphitic carbon nitride. Chemical Engineering Journal, 2020, 390, 124551.	12.7	45
45	Alkali Metal Deactivation on the Low Temperature Selective Catalytic Reduction of NO_{<i>x</i>} with NH₃ over MnO_{<i>x</i>}-CeO₂: A Mechanism Study. Journal of Physical Chemistry C, 2016, 120, 15299-15309.	3.1	44
46	H₃PW₁₂O₄₀ Grafted on CeO₂: A High-Performance Catalyst for the Selective Catalytic Reduction of NO_{<i>x</i>} with NH₃. Industrial & Engineering Chemistry Research, 2018, 57, 856-866.	3.7	44
47	Significant Enhancement of Gaseous Elemental Mercury Recovery from Coal-Fired Flue Gas by Phosphomolybdic Acid Grafting on Sulfurated Î³-Fe₂O₃: Performance and Mechanism. Environmental Science & Technology, 2020, 54, 1992-2001.	10.0	43
48	Novel Synergistic Effect of Fe and Mo in FeMoS<i>_x</i>/TiO₂ for Recovering High Concentrations of Gaseous Hg⁰ from Smelting Flue Gas: Reaction Mechanism and Kinetics. Environmental Science & Technology, 2020, 54, 586-594.	10.0	42
49	Dual Effect of Sulfation on the Selective Catalytic Reduction of NO with NH₃ over MnO_{<i>x</i>}/TiO₂: Key Factor of NH₃ Distribution. Industrial & Engineering Chemistry Research, 2014, 53, 5810-5819.	3.7	36
50	Effect of CeO₂ for a high-efficiency CeO₂/WO₃â€“TiO₂ catalyst on N₂O formation in NH₃-SCR: a kinetic study. Catalysis Science and Technology, 2016, 6, 3149-3155.	4.1	36
51	Balance between Reducibility and N₂O Adsorption Capacity for the N₂O Decomposition: Cu_{<i>x</i>}Co_{<i>y</i>} Catalysts as an Example. Environmental Science & Technology, 2019, 53, 10379-10386.	10.0	36
52	Acceleration of Hg⁰ Adsorption onto Natural Sphalerite by Cu²⁺ Activation during Flotation: Mechanism and Applications in Hg⁰ Recovery. Environmental Science & Technology, 2020, 54, 7687-7696.	10.0	35
53	Novel Synergetic Effect of Fe and W in FeWS_{<i>x</i>}/TiO₂ on Capturing High Concentrations of Gaseous Hg⁰ from Smelting Flue Gas: Adsorption Kinetics and Structureâ€“Activity Relationship. Industrial & Engineering Chemistry Research, 2020, 59, 2745-2753.	3.7	34
54	Faster electron injection and higher interface reactivity in g-C3N4/Fe2O3 nanohybrid for efficient photo-Fenton-like activity toward antibiotics degradation. Environmental Research, 2021, 195, 110842.	7.5	34

#	Article	IF	Citations
55	Novel approach for a cerium-based highly-efficient catalyst with excellent NH₃-SCR performance. Catalysis Science and Technology, 2014, 4, 3611-3614.	4.1	33
56	Effect of Sulfation on the Selective Catalytic Reduction of NO with NH3 Over Î³-Fe2O3. Catalysis Letters, 2014, 144, 578-584.	2.6	31
57	Novel Promotion of Sulfuration for Hg⁰ Conversion over V₂O₅â€“MoO₃/TiO₂ with HCl at Low Temperatures: Hg⁰ Adsorption, Hg⁰ Oxidation, and Hg²⁺ Adsorption. Environmental Science & Technology, 2021, 55, 7072-7081.	10.0	31
58	H₂S-Modified Natural Ilmenite: A Recyclable Magnetic Sorbent for Recovering Gaseous Elemental Mercury from Flue Gas. Industrial & Engineering Chemistry Research, 2017, 56, 10060-10068.	3.7	29
59	Controllable fabrication of a red phosphorus modified g-C3N4 photocatalyst with strong interfacial binding for the efficient removal of organic pollutants. Journal of Alloys and Compounds, 2019, 810, 151885.	5.5	29
60	Recovering gaseous Hg0 using sulfureted phosphotungstic acid modified Î³-Fe2O3 from power plants burning Hg-rich coal for centralized control. Journal of Hazardous Materials, 2021, 407, 124381.	12.4	29
61	<i>In Situ</i> Emergency Disposal of Liquid Mercury Leakage by Fe-Containing Sphalerite: Performance and Reaction Mechanism. Industrial & Engineering Chemistry Research, 2017, 56, 153-160.	3.7	28
62	Outstanding Performance of Magnetically Separable Sulfureted MoO₃/Feâ€“Ti Spinel for Gaseous Hg⁰ Recovery from Smelting Flue Gas: Mechanism and Adsorption Kinetics. Environmental Science & Technology, 2020, 54, 7659-7668.	10.0	28
63	Influence mechanism of the compositions in coal-fired flue gas on Hg0 oxidation over commercial SCR catalyst. Journal of Industrial and Engineering Chemistry, 2019, 75, 130-137.	5.8	27
64	Synthesis and characterization of nano-sized Mnâ€“TiO2 catalysts and their application to removal of gaseous elemental mercury. Research on Chemical Intermediates, 2012, 38, 2511-2522.	2.7	25
65	Mechanism of Elemental Mercury Oxidation over Copper-Based Oxide Catalysts: Kinetics and Transient Reaction Studies. Industrial & Engineering Chemistry Research, 2020, 59, 61-70.	3.7	24
66	CO2 adsorption performance of ZIF-7 and its endurance in flue gas components. Frontiers of Environmental Science and Engineering, 2014, 8, 162-168.	6.0	23
67	W-Modified Mnâ€“Ti Mixed Oxide Catalyst for the Selective Catalytic Reduction of NO with NH₃. Industrial & Engineering Chemistry Research, 2018, 57, 9112-9119.	3.7	23
68	Costâ€Efficient Graphitic Carbon Nitride as an Effective Photocatalyst for Antibiotic Degradation: An Insight into the Effects of Different Precursors and Coexisting Ions, and Photocatalytic Mechanism. Chemistry - an Asian Journal, 2019, 14, 162-169.	3.3	23
69	Promotion mechanism of CeO₂addition on the low temperature SCR reaction over MnO_x/TiO₂: a new insight from the kinetic study. RSC Advances, 2015, 5, 27785-27793.	3.6	22
70	Promotion of H₃PW₁₂O₄₀ Grafting on NO_{<i>x</i>} Abatement over Î³-Fe₂O₃: Performance and Reaction Mechanism. Industrial & Engineering Chemistry Research, 2018, 57, 13661-13670.	3.7	22
71	The effect of Ce on a high-efficiency CeO₂/WO₃â€“TiO₂ catalyst for the selective catalytic reduction of NO_x with NH₃. RSC Advances, 2016, 6, 64803-64810.	3.6	21
72	Role of WO3 in NO Reduction with NH3 over V2O5-WO3/TiO2: A New Insight from the Kinetic Study. Catalysis Letters, 2016, 146, 2242-2251.	2.6	20

#	Article	IF	Citations
73	Remarkable differences between copper-based sulfides and iron-based sulfides for the adsorption of high concentrations of gaseous elemental mercury: Mechanisms, kinetics, and significance. Journal of Colloid and Interface Science, 2021, 582, 581-590.	9.4	18
74	Why the Low-Temperature Selective Catalytic Reduction Performance of Cr/TiO₂ Is Much Less than That of Mn/TiO₂: A Mechanism Study. Journal of Physical Chemistry C, 2016, 120, 23511-23522.	3.1	16
75	The promotion effect of ceria on high vanadia loading NH3-SCR catalysts. Catalysis Communications, 2019, 121, 84-88.	3.3	16
76	Outstanding performance of ZnS/TiO2 for the urgent disposal of liquid mercury leakage indoors: Novel support effect, reaction mechanism and kinetics. Journal of Hazardous Materials, 2021, 403, 123867.	12.4	16
77	Resource utilization of natural pyrite (FeS2) as the tailings after flotation of natural sphalerite (ZnS) for reclaiming high concentrations of gaseous Hg0 from Zn smelting flue gas. Chemical Engineering Journal, 2022, 427, 131644.	12.7	15
78	Novel Counteraction Effect of H₂O and SO₂ toward HCl on the Chemical Adsorption of Gaseous Hg⁰ onto Sulfureted HPW/Î³-Fe₂O₃ at Low Temperatures: Mechanism and Its Application in Hg⁰ Recovery from Coal-Fired Flue Gas. Environmental Science & Technology, 2022, 56, 642-651.	10.0	14
79	Safe disposal of deactivated commercial selective catalytic reduction catalyst (V2O5-MoO3/TiO2) as a low-cost and regenerable sorbent to recover gaseous elemental mercury in smelting flue gas. Journal of Hazardous Materials, 2021, 406, 124744.	12.4	13
80	Selective removal of Hg2+ from acidic wastewaters using sulfureted Fe2TiO5: Underlying mechanism and its application as a regenerable sorbent for recovering Hg from waste acids of smelters. Water Research, 2022, 221, 118796.	11.3	11
81	A novel dual layer SCR catalyst with a broad temperature window for the control of NO emission from diesel bus. Catalysis Communications, 2015, 65, 108-112.	3.3	10
82	Outstanding performance of CuO/Feâ€"Ti spinel for Hg⁰ oxidation as a co-benefit of NO abatement: significant promotion of Hg⁰ oxidation by CuO loading. Catalysis Science and Technology, 2021, 11, 2316-2326.	4.1	10
83	Different Design Strategies for Metal Sulfide Sorbents to Capture Low Concentrations of Gaseous Hg⁰ in Coal-Fired Flue Gas and High Concentrations of Gaseous Hg⁰ in Smelting Flue Gas. Environmental Science & Technology, 2021, 55, 7094-7101.	10.0	10
84	Outstanding performance of sulfurated titanomaghemite (Fe2TiO5) for hexavalent chromium removal: Sulfuration promotion mechanism and its application in chromium resource recovery. Chemosphere, 2022, 287, 132360.	8.2	10
85	Simultaneous Adsorption of Gaseous Hg⁰ and Hg(II) by Regenerable Monolithic FeMoS_{<i>x</i>}/TiO₂: Mechanism and its Application in the Centralized Control of Hg Pollution in Coal-Fired Flue Gas. Environmental Science & Technology, 2022, 56, 10977-10986.	10.0	9
86	Comparison of pyrite-phase transition metal sulfides for capturing leaked high concentrations of gaseous elemental mercury in indoor air: Mechanism and adsorption/desorption kinetics. Journal of Colloid and Interface Science, 2022, 622, 431-442.	9.4	7
87	Removal of elemental mercury with Mn/Mo/Ru/Al2O3 membrane catalytic system. Frontiers of Environmental Science and Engineering, 2013, 7, 464-473.	6.0	3