

Chang Hwan Kim

List of Publications by Year in descending order

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72
papers

3,701
citations

147801

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138484

58
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docs citations

73
times ranked

3298
citing authors

#	ARTICLE	IF	CITATIONS
1	Promoting effect of CO on low-temperature NO _x adsorption over Pd/CeO ₂ catalyst. <i>Catalysis Today</i> , 2022, 384-386, 88-96.	4.4	8
2	A Cu-impregnated ZSM-5 zeolite for active cold start hydrocarbon removal: Cation-type-dependent Cu species and their synergetic HC adsorption/oxidation functions. <i>Chemical Engineering Journal</i> , 2022, 430, 132552.	12.7	8
3	Promoting effect of Rh-impregnation on Ag/CeO ₂ catalyst for soot oxidation. <i>Applied Surface Science</i> , 2022, 572, 151504.	6.1	17
4	Deactivation of Pd/Zeolites passive NO _x adsorber induced by NO and H ₂ O: Comparative study of Pd/ZSM-5 and Pd/SSZ-13. <i>Catalysis Today</i> , 2021, 360, 350-355.	4.4	21
5	Interplay of ligand and strain effects in CO adsorption on bimetallic Cu/M (M = Ni, Ir, Pd, and Pt) catalysts from first-principles: Effect of different facets on catalysis. <i>Catalysis Today</i> , 2021, 359, 57-64.	4.4	23
6	Roles of noble metals (M = Ag, Au, Pd, Pt and Rh) on CeO ₂ in enhancing activity toward soot oxidation: Active oxygen species and DFT calculations. <i>Journal of Hazardous Materials</i> , 2021, 403, 124085.	12.4	84
7	A copper-impregnated BEA zeolite for adsorption and oxidation of aromatic species during vehicle cold starts. <i>Applied Catalysis B: Environmental</i> , 2021, 287, 119951.	20.2	20
8	Effects of La incorporation in catalytic activity of Ag/La-CeO ₂ catalysts for soot oxidation. <i>Journal of Hazardous Materials</i> , 2021, 414, 125523.	12.4	31
9	Effect of Ag doping on Pd/Ag-CeO ₂ catalysts for CO and C ₃ H ₆ oxidation. <i>Journal of Hazardous Materials</i> , 2021, 415, 125373.	12.4	33
10	Ag-doped manganese oxide catalyst for gasoline particulate filters: Effect of crystal phase on soot oxidation activity. <i>Applied Surface Science</i> , 2021, 569, 151041.	6.1	15
11	NO _x -assisted soot oxidation based on Ag/MnO _x -CeO ₂ mixed oxides. <i>Applied Catalysis A: General</i> , 2021, 627, 118396.	4.3	12
12	Development of Etched SiO ₂ @Pt@ZrO ₂ Core-Shell Catalyst for CO and C ₃ H ₆ Oxidation at Low Temperature. <i>Applied Surface Science</i> , 2021, , 151582.	6.1	8
13	CeO ₂ promoted Ag/TiO ₂ catalyst for soot oxidation with improved active oxygen generation and delivery abilities. <i>Journal of Hazardous Materials</i> , 2020, 384, 121341.	12.4	35
14	SiO@Pd@CeO catalyst with improved thermal stability: Effect of interaction between Pd and CeO on activity for CO oxidation. <i>Molecular Catalysis</i> , 2020, 492, 111014.	2.0	7
15	Improving NO _x storage and CO oxidation abilities of Pd/SSZ-13 by increasing its hydrophobicity. <i>Applied Catalysis B: Environmental</i> , 2020, 277, 119190.	20.2	43
16	Urealess NO _x Reduction by Carbon Monoxide in Simulated Lean-Burn Exhausts. <i>Environmental Science & Technology</i> , 2020, 54, 8344-8351.	10.0	37
17	Lean NO _x trap catalysts with high low-temperature activity and hydrothermal stability. <i>Applied Catalysis B: Environmental</i> , 2020, 270, 118871.	20.2	29
18	Synergistic effect of Cu on a Ag-loaded CeO ₂ catalyst for soot oxidation with improved generation of active oxygen species and reducibility. <i>Fuel</i> , 2020, 275, 117930.	6.4	24

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19	Hybrid Nonlinear Model Predictive Control of LNT and Urealess SCR Aftertreatment System. IEEE Transactions on Control Systems Technology, 2019, 27, 2305-2313.	5.2	13
20	Promoting effect of H ₂ O over macroporous Ce-Zr catalysts in soot oxidation. Molecular Catalysis, 2019, 474, 110416.	2.0	9
21	Comparative study of the mobility of Pd species in SSZ-13 and ZSM-5, and its implication for their activity as passive NO _x adsorbers (PNAs) after hydro-thermal aging. Catalysis Science and Technology, 2019, 9, 163-173.	4.1	58
22	Ag-incorporated macroporous CeO ₂ catalysts for soot oxidation: Effects of Ag amount on the generation of active oxygen species. Applied Catalysis B: Environmental, 2019, 246, 356-366.	20.2	76
23	Comparison of NO _x Adsorption/Desorption Behaviors over Pd/CeO ₂ and Pd/SSZ-13 as Passive NO _x Adsorbers for Cold Start Application. Emission Control Science and Technology, 2019, 5, 172-182.	1.5	28
24	Ce-Pr Mixed Oxide Catalysts with a Fibrous Morphology for Low-temperature PM Oxidation. ChemCatChem, 2019, 11, 2131-2141.	3.7	18
25	Synergistic Effect of Cu/CeO ₂ and Pt-BaO/CeO ₂ Catalysts for a Low-Temperature Lean NO _x Trap. Environmental Science & Technology, 2019, 53, 2900-2907.	10.0	26
26	Deactivation mechanism of Cu/Zeolite SCR catalyst under high-temperature rich operation condition. Applied Catalysis A: General, 2019, 569, 175-180.	4.3	28
27	Effect of reduction treatments (H ₂ vs. CO) on the NO adsorption ability and the physicochemical properties of Pd/SSZ-13 passive NO _x adsorber for cold start application. Applied Catalysis A: General, 2019, 569, 28-34.	4.3	61
28	Effect of various activation conditions on the low temperature NO adsorption performance of Pd/SSZ-13 passive NO _x adsorber. Catalysis Today, 2019, 320, 175-180.	4.4	81
29	Where Does the Sulphur Go? Deactivation of a Low Temperature CO Oxidation Catalyst by Sulphur Poisoning. Catalysis Letters, 2018, 148, 1445-1450.	2.6	3
30	Improved thermal stability of a copper-containing ceria-based catalyst for low temperature CO oxidation under simulated diesel exhaust conditions. Catalysis Science and Technology, 2018, 8, 1383-1394.	4.1	20
31	On the synthesis of a hierarchically-structured ZSM-5 zeolite and the effect of its physicochemical properties with Cu impregnation on cold-start hydrocarbon trap performance. Catalysis Today, 2018, 314, 78-93.	4.4	15
32	Status of Emission Control Science and Technology in South Korea. Emission Control Science and Technology, 2018, 4, 1-3.	1.5	5
33	Low temperature NO adsorption over hydrothermally aged Pd/CeO ₂ for cold start application. Catalysis Today, 2018, 307, 93-101.	4.4	55
34	Investigation of the active sites and optimum Pd/Al of Pd/ZSM-5 passive NO adsorbers for the cold-start application: Evidence of isolated-Pd species obtained after a high-temperature thermal treatment. Applied Catalysis B: Environmental, 2018, 226, 71-82.	20.2	89
35	Multiobjective Optimal Design of a Lean NO _x Trap and Urealess Selective Catalytic Reduction Aftertreatment System under a Control Algorithm. Industrial & Engineering Chemistry Research, 2018, 57, 16772-16781.	3.7	2
36	Design considerations for low-temperature hydrocarbon oxidation reactions on Pd based catalysts. Applied Catalysis B: Environmental, 2018, 236, 436-444.	20.2	98

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37	Fully Copper-Exchanged High-Silica LTA Zeolites as Unrivaled Hydrothermally Stable NH ₃ -SCR Catalysts. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3256-3260.	13.8	145
38	Ostwald-ripening sintering kinetics of Pd-based three-way catalyst: Importance of initial particle size of Pd. <i>Chemical Engineering Journal</i> , 2017, 316, 631-644.	12.7	39
39	Fully Copper-Exchanged High-Silica LTA Zeolites as Unrivaled Hydrothermally Stable NH ₃ -SCR Catalysts. <i>Angewandte Chemie</i> , 2017, 129, 3304-3308.	2.0	33
40	Activation of Pd/SSZ-13 catalyst by hydrothermal aging treatment in passive NO adsorption performance at low temperature for cold start application. <i>Applied Catalysis B: Environmental</i> , 2017, 212, 140-149.	20.2	127
41	Effect of sulfur aging and regeneration on low temperature NO adsorption over hydrothermally treated Pd/CeO ₂ and Pd/Ce _{0.58} Zr _{0.42} O ₂ catalysts. <i>Catalysis Today</i> , 2017, 297, 53-59.	4.4	35
42	Sulfur Poisoning and Regeneration Behavior of Perovskite-Based NO Oxidation Catalysts. <i>Topics in Catalysis</i> , 2017, 60, 40-51.	2.8	7
43	Synthesis of zeolite UZM-35 and catalytic properties of copper-exchanged UZM-35 for ammonia selective catalytic reduction. <i>Applied Catalysis B: Environmental</i> , 2017, 200, 428-438.	20.2	50
44	Synthesis of High-Silica LTA and UFI Zeolites and NH ₃ -SCR Performance of Their Copper-Exchanged Form. <i>ACS Catalysis</i> , 2016, 6, 2443-2447.	11.2	124
45	Dynamic modelling and sensitivity analysis integrated LNT-pSCR system. <i>IFAC-PapersOnLine</i> , 2016, 49, 326-331.	0.9	4
46	Relating adatom emission to improved durability of Pt-Pd diesel oxidation catalysts. <i>Journal of Catalysis</i> , 2015, 328, 151-164.	6.2	75
47	Kinetic model for modern double-layered Pd/Rh TWC as a function of metal loadings and mileage. <i>Chemical Engineering Journal</i> , 2015, 278, 328-338.	12.7	17
48	Universal activity function for predicting performance of Pd-based TWC as function of Pd loading and catalyst mileage. <i>Chemical Engineering Journal</i> , 2015, 259, 519-533.	12.7	21
49	DFT Analysis of NO Oxidation Intermediates on Undoped and Doped LaCoO ₃ Perovskite. <i>Journal of Physical Chemistry C</i> , 2015, 119, 20488-20494.	3.1	39
50	An Investigative Study of Sudden Pressure Increase Phenomenon Across the DPF. , 2014, , .		11
51	Palladium doped perovskite-based NO oxidation catalysts: The role of Pd and B-sites for NO _x adsorption behavior via in-situ spectroscopy. <i>Applied Catalysis B: Environmental</i> , 2014, 154-155, 51-61.	20.2	53
52	Detailed reaction kinetics for double-layered Pd/Rh bimetallic TWC monolith catalyst. <i>Chemical Engineering Journal</i> , 2014, 241, 273-287.	12.7	52
53	Trapping of Mobile Pt Species by PdO Nanoparticles under Oxidizing Conditions. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2089-2093.	4.6	77
54	Oxidation of Carbon Monoxide over MLaO _x Perovskites Supported on Mesoporous Zirconia. <i>ChemCatChem</i> , 2014, 6, 1990-1997.	3.7	12

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55	Effect of speciated HCs on the performance of modern commercial TWCs. <i>Catalysis Today</i> , 2014, 231, 3-14.	4.4	36
56	LDA+U evaluation of the stability of low-index facets of LaCoO ₃ perovskite. <i>Surface Science</i> , 2014, 619, 71-76.	1.9	23
57	Ultra low temperature CO and HC oxidation over Cu-based mixed oxides for future automotive applications. <i>Applied Catalysis B: Environmental</i> , 2014, 160-161, 365-373.	20.2	25
58	Microstructure of Bimetallic Pt ϵ Pd Catalysts under Oxidizing Conditions. <i>ChemCatChem</i> , 2013, 5, 2636-2645.	3.7	64
59	Effect of Aging Atmosphere on Thermal Sintering of Modern Commercial TWCs. <i>Topics in Catalysis</i> , 2013, 56, 298-305.	2.8	47
60	Experimental and Computational Investigation of Effect of Sr on NO Oxidation and Oxygen Exchange for La _x Sr _x Co ₃ Perovskite Catalysts. <i>ACS Catalysis</i> , 2013, 3, 2719-2728.	11.2	74
61	Preparation of alumina-supported gold-ruthenium bimetallic catalysts by redox reactions and their activity in preferential CO oxidation. <i>Applied Catalysis B: Environmental</i> , 2013, 134-135, 123-129.	20.2	26
62	Activity function describing the effect of Pd loading on the catalytic performance of modern commercial TWC. <i>Chemical Engineering Journal</i> , 2012, 207-208, 117-121.	12.7	26
63	Global Kinetics for Ammonia Formation and Oxidation Reactions in a Commercial Three-Way Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 1198-1208.	3.7	16
64	Thermal durability of Cu-CHA NH ₃ -SCR catalysts for diesel NO reduction. <i>Catalysis Today</i> , 2012, 184, 252-261.	4.4	245
65	Deactivation mechanisms of Pt/Pd-based diesel oxidation catalysts. <i>Catalysis Today</i> , 2012, 184, 197-204.	4.4	86
66	Strontium-Doped Perovskites Rival Platinum Catalysts for Treating NO _x in Simulated Diesel Exhaust. <i>Science</i> , 2010, 327, 1624-1627.	12.6	553
67	On the importance of nanocrystalline gold for Au/CeO ₂ water-gas shift catalysts. <i>Journal of Catalysis</i> , 2006, 244, 248-250.	6.2	64
68	Deactivation of Au/CeO _x water gas shift catalysts. <i>Journal of Catalysis</i> , 2005, 230, 66-74.	6.2	212
69	Passive Ammonia SCR System for Lean-burn SIDI Engines. <i>SAE International Journal of Fuels and Lubricants</i> , 0, 3, 99-106.	0.2	40
70	Three-Way Catalyst Design for Urealess Passive Ammonia SCR: Lean-Burn SIDI Aftertreatment System. , 0, , .		23
71	The Effect of Pt-Pd Ratio on Oxidation Catalysts Under Simulated Diesel Exhaust. , 0, , .		53
72	Electrically Heated Catalysts for Cold-Start Emissions in Diesel Aftertreatment. , 0, , .		27