William S Epling

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8818626/publications.pdf

Version: 2024-02-01

110 papers	7,589 citations	57758 44 h-index	54911 84 g-index
111 all docs	111 docs citations	111 times ranked	5558 citing authors

#	Article	IF	Citations
1	Effects of CO and H2O Co-Feed on the Adsorption and Oxidation Properties of a Pd/BEA Hydrocarbon Trap. Catalysts, 2021, 11, 348.	3.5	4
2	Investigation of NO adsorption and desorption phenomena on a Pd/ZSM-5 passive NOx adsorber. Applied Catalysis B: Environmental, 2021, 298, 120561.	20.2	20
3	Integration of an Oxidation Catalyst with Pd/Zeolite-Based Passive NOx Adsorbers: Impacts on Degradation Resistance and Desorption Characteristics. Industrial & Engineering Chemistry Research, 2021, 60, 6455-6464.	3.7	16
4	Condition-Dependent Pd Speciation and NO Adsorption in Pd/Zeolites. ACS Catalysis, 2020, 10, 12801-12818.	11.2	74
5	Heterogeneous catalyst design: Zoned and layered catalysts in diesel vehicle aftertreatment monolith reactors. Canadian Journal of Chemical Engineering, 2019, 97, 188-206.	1.7	13
6	Effects of Multicomponent Hydrocarbon Feed on Hydrocarbon Adsorptionâ€“Desorption and Oxidation Light-Off Behavior on a Pd/BEA Hydrocarbon Trap. Catalysis Letters, 2019, 149, 3194-3202.	2.6	11
7	Investigation of an irreversible NOx storage degradation Mode on a Pd/BEA passive NOx adsorber. Applied Catalysis B: Environmental, 2019, 258, 118032.	20.2	60
8	Mechanism-based kinetic modeling of Cu-SSZ-13 sulfation and desulfation for NH₃-SCR applications. Reaction Chemistry and Engineering, 2019, 4, 1038-1049.	3.7	32
9	Stable and Active Oxidation Catalysis by Cooperative Lattice Oxygen Redox on SmMn₂O₅ Mullite Surface. Journal of the American Chemical Society, 2019, 141, 10722-10728.	13.7	64
10	Coupled NO and C₃H₆ Trapping, Release and Conversion on Pd/BEA: Evaluation of the Lean Hydrocarbon NO_x Trap. Industrial & Engineering Chemistry Research, 2019, 58, 22912-22923.	3.7	28
11	Modulating and Orienting an Anisotropic Zn-Based Metal Organic Framework for Selective CH4/CO2 Gas Separation. Crystals, 2019, 9, 20.	2.2	25
12	Formation and Decomposition of Sulfite and Sulfate Species on Pt/Pd Catalysts: An SO₂ Oxidation and Sulfur Exposure Study. ACS Catalysis, 2019, 9, 640-648.	11.2	36
13	SO2 adsorption and desorption characteristics of bimetallic Pd-Pt catalysts: Pd:Pt ratio dependency. Catalysis Today, 2019, 320, 11-19.	4.4	26
14	Passive NOx adsorber: An overview of catalyst performance and reaction chemistry. Applied Catalysis A: General, 2019, 570, 1-14.	4.3	117
15	A Summary of Sulfur Deactivation, Desorption, and Regeneration Characteristics of Mono- and Bimetallic Pd-Pt Methane Oxidation Catalysts: Pd:Pt Mole Ratio and Particle Size Dependency. Emission Control Science and Technology, 2018, 4, 78-89.	1.5	11
16	Nature of Cu Active Centers in Cu-SSZ-13 and Their Responses to SO₂ Exposure. ACS Catalysis, 2018, 8, 1325-1337.	11.2	172
17	Superior catalytic performance of Mn-Mullite over Mn-Perovskite for NO oxidation. Catalysis Today, 2018, 310, 195-201.	4.4	52
18	Effect of Pt:Pd ratio on CO and hydrocarbon oxidation. Applied Catalysis B: Environmental, 2018, 223, 67-75.	20.2	50

#	Article	IF	Citations
19	Comparison of light-off performance of Pt-Pd/Î³-Al2O3 dual layer and dual brick diesel oxidation catalysts. Chemical Engineering Journal, 2018, 335, 1004-1017.	12.7	11
20	Reversible and irreversible deactivation of Cu-CHA NH3-SCRcatalysts by SO2 and SO3. Applied Catalysis B: Environmental, 2018, 226, 38-45.	20.2	97
21	Waste into Fuelâ€"Catalyst and Process Development for MSW Valorisation. Catalysts, 2018, 8, 113.	3.5	34
22	Chapter 4. Lean NOx Trap Performance Degradation â€“ Reversible Sulfur Poisoning and Irreversible Thermally-induced Sintering. RSC Catalysis Series, 2018, , 104-126.	0.1	1
23	Effects of CO on Pd/BEA Passive NOx Adsorbers. Catalysis Letters, 2017, 147, 745-750.	2.6	85
24	Sulfur deactivation and regeneration of mono- and bimetallic Pd-Pt methane oxidation catalysts. Applied Catalysis B: Environmental, 2017, 206, 589-598.	20.2	84
25	SO 2 adsorption and desorption characteristics of Pd and Pt catalysts: Precious metal crystallite size dependence. Applied Catalysis A: General, 2017, 534, 85-93.	4.3	31
26	Hydrocarbon Trapping over Ag-Beta Zeolite for Cold-Start Emission Control. Catalysis Letters, 2017, 147, 1355-1362.	2.6	30
27	From Activeâ€Site Models to Real Catalysts: Importance of the Material Gap in the Design of Pd Catalysts for Methane Oxidation. ChemCatChem, 2017, 9, 1520-1520.	3.7	1
28	From Activeâ€Site Models to Real Catalysts: Importance of the Material Gap in the Design of Pd Catalysts for Methane Oxidation. ChemCatChem, 2017, 9, 1594-1600.	3.7	15
29	Coupled Heterogeneous and Homogeneous Hydrocarbon Oxidation Reactions in Model Diesel Oxidation Catalysts. Emission Control Science and Technology, 2017, 3, 5-17.	1.5	7
30	Zoning and Trapping Effects on CO and Hydrocarbon Light-Off in Diesel Oxidation Catalysts. Industrial & Engineering Chemistry Research, 2017, 56, 13628-13633.	3.7	6
31	Kinetic and mechanistic study of bimetallic Pt-Pd/Al2O3 catalysts for CO and C3H6 oxidation. Applied Catalysis B: Environmental, 2017, 202, 404-417.	20.2	109
32	Spatially resolving CO and C3H6 oxidation reactions in a Pt/Al2O3 model oxidation catalyst. Catalysis Today, 2016, 267, 157-166.	4.4	43
33	SO₂ Poisoning of the NH₃-SCR Reaction over Cu-SAPO-34: Effect of Ammonium Sulfate versus Other S-Containing Species. ACS Catalysis, 2016, 6, 6612-6622.	11.2	97
34	Study of NO Formation During NH3 Oxidation Reaction Over a Cu-SAPO-34 SCR catalyst. Catalysis Letters, 2016, 146, 1552-1561.	2.6	18
35	Sulfur Poisoning of a Pt/Al2O3 Oxidation Catalyst: Understanding of SO2, SO3 and H2SO4 Impacts. Topics in Catalysis, 2016, 59, 1028-1032.	2.8	25
36	Effect of SO₂ on NH₃ oxidation over a Cu-SAPO-34 SCR catalyst. Catalysis Science and Technology, 2016, 6, 2679-2685.	4.1	37

#	Article	IF	Citations
37	Kinetic study of adsorption and desorption of SO2 over Î³-Al2O3 and Pt/Î³-Al2O3. Applied Catalysis B: Environmental, 2016, 181, 587-598.	20.2	54
38	A comparison of hydrothermal aging effects on NH3-SCR of NO over Cu-SSZ-13 and Cu-SAPO-34 catalysts. Applied Catalysis B: Environmental, 2015, 165, 438-445.	20.2	260
39	Effect of interactions between Ni and Mo on catalytic properties of a bimetallic Ni-Mo/Al 2 O 3 propane reforming catalyst. Applied Catalysis A: General, 2015, 490, 80-92.	4.3	62
40	Investigating carbon monoxide and propene oxidation on a platinum diesel oxidation catalyst. Canadian Journal of Chemical Engineering, 2014, 92, 1496-1505.	1.7	7
41	NH3-SCR over Cu/SAPO-34 â€“ Zeolite acidity and Cu structure changes as a function of Cu loading. Catalysis Today, 2014, 231, 64-74.	4.4	180
42	Performance characteristics of Moâ€“Ni/Al2O3 catalysts in LPG oxidative steam reforming for hydrogen production. International Journal of Hydrogen Energy, 2014, 39, 10061-10073.	7.1	38
43	Methane oxidation hysteresis over Pt/Al2O3. Applied Catalysis A: General, 2014, 478, 91-97.	4.3	27
44	Selective Catalytic Reduction of NO_x with NH₃ over a Cuâ€SSZâ€13 Catalyst Prepared by a Solidâ€State Ionâ€Exchange Method. ChemCatChem, 2014, 6, 1579-1583.	3.7	101
45	Effect of Thermal Degradation on the CO, C₃H₆, and NO Oxidation Performance of Pt/Al₂O₃ with a Zoned Distribution of Pt. Industrial & Engineering Chemistry Research, 2014, 53, 5692-5700.	3.7	4
46	Experimental and kinetic study of SO2 oxidation on a Pt/Î³-Al2O3 catalyst. Applied Catalysis B: Environmental, 2014, 152-153, 108-116.	20.2	30
47	SO2 poisoning impact on the NH3-SCR reaction over a commercial Cu-SAPO-34 SCR catalyst. Applied Catalysis B: Environmental, 2014, 156-157, 371-377.	20.2	179
48	Reaction Kinetics of C3H6 Oxidation for Various Reaction Pathways Over Diesel Oxidation Catalysts. Topics in Catalysis, 2013, 56, 1916-1921.	2.8	13
49	Reduction of Surface Nitrates via C3H6 Oxidation Over a Pt/Al2O3 Catalyst. Topics in Catalysis, 2013, 56, 114-117.	2.8	2
50	An investigation of the role of surface nitrate species in the oxidation of propene on a Pt-based diesel oxidation catalyst. Catalysis Science and Technology, 2013, 3, 2349.	4.1	10
51	Improved CO, hydrocarbon and NO oxidation performance using zone-coated Pt-based catalysts. Catalysis Today, 2013, 207, 220-226.	4.4	18
52	In Situ-DRIFTS Study of Selective Catalytic Reduction of NO_x by NH₃ over Cu-Exchanged SAPO-34. ACS Catalysis, 2013, 3, 871-881.	11.2	375
53	Characterization of Ceriaâ€™s Interaction with NO_x and NH₃. Journal of Physical Chemistry C, 2013, 117, 8282-8289.	3.1	128
54	Simulation of methane catalytic cracking in a bubbling fluidised bed. Canadian Journal of Chemical Engineering, 2013, 91, 1928-1935.	1.7	4

#	Article	IF	Citations
55	Low Temperature Ceria-Based Lean NO x Traps. Catalysis Letters, 2012, 142, 946-958.	2.6	26
56	Inverse Hysteresis Phenomena During CO and C3H6 Oxidation over a Pt/Al2O3 Catalyst. Catalysis Letters, 2012, 142, 930-935.	2.6	46
57	NH3 pulsing adsorption and SCR reactions over a Cu-CHA SCR catalyst. Catalysis Today, 2012, 197, 9-17.	4.4	17
58	Evaluating the Effects of Precious Metal Distribution along a Monolith-Supported Catalyst for CO oxidation. Industrial & Engineering Chemistry Research, 2012, 51, 6672-6679.	3.7	10
59	Hydrogen production by methane cracking using Ni-supported catalysts in a fluidized bed. International Journal of Hydrogen Energy, 2012, 37, 10690-10701.	7.1	43
60	Competitive no, co and hydrocarbon oxidation reactions over a diesel oxidation catalyst. Canadian Journal of Chemical Engineering, 2012, 90, 1527-1538.	1.7	51
61	Methane cracking using Ni supported on porous and non-porous alumina catalysts. International Journal of Hydrogen Energy, 2012, 37, 9038-9048.	7.1	44
62	Influence of Pt Loading in Aged NOx Storage and Reduction Catalysts. Journal of Physical Chemistry C, 2011, 115, 952-960.	3.1	21
63	Reaction and Deactivation Rates of Methane Catalytic Cracking over Nickel. Industrial & Engineering Chemistry Research, 2011, 50, 12460-12470.	3.7	30
64	Diesel Oxidation Catalysts. Catalysis Reviews - Science and Engineering, 2011, 53, 337-423.	12.9	316
65	NO Oxidation Inhibition by Hydrocarbons over a Diesel Oxidation Catalyst: Reaction Between Surface Nitrates and Hydrocarbons. Catalysis Letters, 2011, 141, 1746-1751.	2.6	21
66	Spatially resolved temperature and gas species concentration changes during C3H6 oxidation over a Pt/Al2O3 catalyst following sulfur exposure. Applied Catalysis A: General, 2011, 397, 272-284.	4.3	20
67	Spatially resolving SCR reactions over a Fe/zeolite catalyst. Applied Catalysis B: Environmental, 2011, 102, 110-119.	20.2	70
68	Review of methane catalytic cracking for hydrogen production. International Journal of Hydrogen Energy, 2011, 36, 2904-2935.	7.1	341
69	Evaluation of the Ignition of Diesel Fuels on Hot Surfaces. Fire Technology, 2010, 46, 407-423.	3.0	13
70	Sulfur release from a model Pt/Al2O3 diesel oxidation catalyst: Temperature-programmed and step-response techniques characterization. Applied Catalysis A: General, 2010, 383, 182-191.	4.3	48
71	New insights into the promoting effect of H2O on a model Pt/Ba/Al2O3 NSR catalyst. Applied Catalysis B: Environmental, 2010, 97, 236-247.	20.2	31
72	Regeneration of a model NOX storage/reduction catalyst using hydrocarbons as the reductant. Applied Catalysis B: Environmental, 2010, 96, 524-532.	20.2	26

#	Article	IF	Citations
73	Spatially-Resolved Temperature and Gas Species Changes in a Lean-Burn Engine Emissions Control Catalyst. Industrial & Engineering Chemistry Research, 2010, 49, 10311-10322.	3.7	18
74	Investigating the Effect of NO Versus NO2 on the Performance of a Model NO X Storage/Reduction Catalyst. Catalysis Letters, 2009, 130, 121-129.	2.6	24
75	Spatial Resolution of Reactant Species Consumption in Diesel Oxidation Catalysts. Topics in Catalysis, 2009, 52, 1856-1859.	2.8	14
76	Spatially resolving concentration and temperature gradients during the oxidation of propylene on Pt/Al2O3. Applied Catalysis A: General, 2009, 365, 301-308.	4.3	39
77	The effects of regeneration-phase CO and/or H2 amount on the performance of a NOX storage/reduction catalyst. Applied Catalysis B: Environmental, 2009, 89, 315-325.	20.2	34
78	Effect of hydrocarbon species on no oxidation over diesel oxidation catalysts. Applied Catalysis B: Environmental, 2009, 92, 422-428.	20.2	63
79	Spatially-Resolved Calorimetry: Using IR Thermography to Measure Temperature and Trapped NOX Distributions on a NOX Adsorber Catalyst. Catalysis Letters, 2008, 125, 229-235.	2.6	19
80	NOX storage/reduction catalyst performance with oxygen in the regeneration phase. Catalysis Today, 2008, 136, 156-163.	4.4	18
81	Carbonate Formation and Stability on a Pt/BaO/Î³-Al2O3 NOX Storage/Reduction Catalyst. Journal of Physical Chemistry C, 2008, 112, 10952-10959.	3.1	47
82	Water-Induced Morphology Changes in BaO/Î³-Al2O3NOxStorage Materials:â€‰ an FTIR, TPD, and Time-Resolved Synchrotron XRD Study. Journal of Physical Chemistry C, 2007, 111, 4678-4687.	3.1	35
83	The effects of regeneration conditions on NOX and NH3 release from NOX storage/reduction catalysts. Applied Catalysis B: Environmental, 2007, 74, 117-129.	20.2	71
84	Characterization of Copper Foam as Catalytic Material in Ethanol Dehydrogenation. Canadian Journal of Chemical Engineering, 2007, 85, 917-924.	1.7	24
85	Relationship of Pt Particle Size to the NOxStorage Performance of Thermally Aged Pt/BaO/Al2O3Lean NOxTrap Catalysts. Industrial & Engineering Chemistry Research, 2006, 45, 8815-8821.	3.7	51
86	The effect of exothermic reactions during regeneration on the NOX trapping efficiency of a NOX storage/reduction catalyst. Catalysis Letters, 2006, 110, 143-148.	2.6	44
87	Intra-channel evolution of carbon monoxide and its implication on the regeneration of a monolithic Pt/K/Al2O3 NOx storage-reduction catalyst. Catalysis Today, 2006, 114, 102-111.	4.4	51
88	Selective low-temperature removal of carbon monoxide from hydrogen-rich fuels over Cuâ€“Ceâ€“Al catalysts. Journal of Power Sources, 2005, 147, 178-183.	7.8	47
89	Quantified NOx adsorption on Pt/K/gamma-Al2O3 and the effects of CO2 and H2O. Applied Catalysis B: Environmental, 2005, 58, 255-264.	20.2	136
90	Differential kinetic analysis of diesel particulate matter (soot) oxidation by oxygen using a stepâ€“response technique. Applied Catalysis B: Environmental, 2005, 61, 120-129.	20.2	119

#	Article	IF	Citations
91	Further evidence of multiple NOx sorption sites on NOx storage/reduction catalysts. Catalysis Today, 2004, 96, 21-30.	4.4	167
92	Overview of the Fundamental Reactions and Degradation Mechanisms of NOx Storage/Reduction Catalysts. Catalysis Reviews - Science and Engineering, 2004, 46, 163-245.	12.9	800
93	Title is missing!. Catalysis Letters, 2003, 90, 45-56.	2.6	83
94	Insights into Photoexcited Electron Scavenging Processes on TiO2Obtained from Studies of the Reaction of O2with OH Groups Adsorbed at Electronic Defects on TiO2(110). Journal of Physical Chemistry B, 2003, 107, 534-545.	2.6	413
95	Title is missing!. Reaction Kinetics and Catalysis Letters, 2000, 70, 97-103.	0.6	30
96	Higher alcohol synthesis reaction study VI: effect of Cr replacement by Mn on the performance of Cs- and Cs, Pd-promoted Zn/Cr spinel catalysts. Applied Catalysis A: General, 1999, 183, 335-343.	4.3	17
97	Catalytic Oxidation of Methane over ZrO2-Supported Pd Catalysts. Journal of Catalysis, 1999, 182, 5-12.	6.2	114
98	Interaction of Molecular Oxygen with the Vacuum-Annealed TiO2(110) Surface:Â Molecular and Dissociative Channels. Journal of Physical Chemistry B, 1999, 103, 5328-5337.	2.6	473
99	Reaction and Surface Characterization Study of Higher Alcohol Synthesis Catalysts. Journal of Catalysis, 1998, 175, 175-184.	6.2	36
100	Higher-alcohol synthesis reaction study V. Effect of excess ZnO on catalyst performance. Applied Catalysis A: General, 1998, 166, 375-385.	4.3	22
101	Oxidation Study of a Polycrystalline Ni/Cr Alloy II. Chemistry of Materials, 1998, 10, 50-58.	6.7	22
102	Surface Characterization Study of the Thermal Decomposition of Ag2CO3. Journal of Physical Chemistry B, 1998, 102, 2263-2268.	2.6	38
103	Characterization study of GaAs(001) surfaces using ion scattering spectroscopy and x-ray photoelectron spectroscopy. Journal of Applied Physics, 1997, 81, 6160-6164.	2.5	13
104	Study of Cs-Promoted, Î±-Alumina-Supported Silver, Ethylene Epoxidation Catalysts. Journal of Catalysis, 1997, 168, 393-399.	6.2	48
105	Reaction and Surface Characterization Study of Higher AlcoholSynthesis Catalysts. Journal of Catalysis, 1997, 169, 438-446.	6.2	46
106	Study of Cs-Promoted, Î±-Alumina-Supported Silver, Ethylene-Epoxidation Catalysts. Journal of Catalysis, 1997, 171, 490-497.	6.2	38
107	Oxidation study of a polycrystalline Ni/Cr alloy I: room-temperature exposure to O2. Thin Solid Films, 1997, 307, 126-132.	1.8	22
108	Ag Foil by XPS. Surface Science Spectra, 1994, 3, 151-156.	1.3	50

#	Article	IF	Citations
109	AgO XPS Spectra. Surface Science Spectra, 1994, 3, 163-168.	1.3	42
110	Ag2O XPS Spectra. Surface Science Spectra, 1994, 3, 157-162.	1.3	53