

Aleksey Yezerets

List of Publications by Year in descending order

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92
papers

5,764
citations

116194

36
h-index

111975

67
g-index

95
all docs

95
docs citations

95
times ranked

3490
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling and experimental insights on oxidation of heavy chain HCs on diesel oxidation catalysts. Chemical Engineering Journal, 2022, 435, 134996.	6.6	3
2	Impact of low temperature sulfur exposure on the aging of small pore Cu-zeolite SCR catalyst. Catalysis Today, 2021, 360, 234-240.	2.2	11
3	O ₂ dosage as a descriptor of TWC performance under lean/rich dithering in stoichiometric natural gas engines. Catalysis Today, 2021, 360, 294-304.	2.2	19
4	Alternate pathway for standard SCR on Cu-zeolites with gas-phase ammonia. Reaction Chemistry and Engineering, 2021, 6, 1042-1052.	1.9	17
5	A modeling and experimental study on hydrothermal aging deactivation of NO oxidation activity on Pt-Pd catalyst. Applied Catalysis B: Environmental, 2021, 283, 119655.	10.8	16
6	Kinetics and thermodynamics of ammonia solvation on Z ₂ Cu, ZCuOH and ZCu sites in Cu-SSZ-13 "â€" Implications for hydrothermal aging. Applied Catalysis B: Environmental, 2021, 297, 120444.	10.8	20
7	On kinetic modeling of change in active sites upon hydrothermal aging of Cu-SSZ-13. Applied Catalysis B: Environmental, 2020, 263, 118368.	10.8	43
8	Distinct reaction pathways of methane oxidation on different oxidation states over Pd-based three-way catalyst (TWC). Applied Catalysis A: General, 2019, 572, 44-50.	2.2	28
9	An experimental and kinetic modeling study of aging impact on surface and subsurface oxygen storage in three-way catalysts. Catalysis Today, 2019, 320, 51-60.	2.2	34
10	Spectroscopic and kinetic responses of Cu-SSZ-13 to SO ₂ exposure and implications for NO _x selective catalytic reduction. Applied Catalysis A: General, 2019, 574, 122-131.	2.2	48
11	New insights into the mechanism of NH ₃ -SCR over Cu- and Fe-zeolite catalyst: Apparent negative activation energy at high temperature and catalyst unit design consequences. Applied Catalysis B: Environmental, 2018, 226, 565-574.	10.8	62
12	Novel method of ammonium nitrate quantification in SCR catalysts. Catalysis Today, 2018, 307, 48-54.	2.2	29
13	NH ₃ -TPD methodology for quantifying hydrothermal aging of Cu/SSZ-13 SCR catalysts. Chemical Engineering Science, 2018, 190, 60-67.	1.9	68
14	New insights into Cu/SSZ-13 SCR catalyst acidity. Part I: Nature of acidic sites probed by NH ₃ titration. Journal of Catalysis, 2017, 348, 291-299.	3.1	233
15	Structural and kinetic changes to small-pore Cu-zeolites after hydrothermal aging treatments and selective catalytic reduction of NO _x with ammonia. Reaction Chemistry and Engineering, 2017, 2, 168-179.	1.9	54
16	Dynamic multinuclear sites formed by mobilized copper ions in NO _x selective catalytic reduction. Science, 2017, 357, 898-903.	6.0	667
17	Dynamic oxygen storage modeling in a three-way catalyst for natural gas engines: A dual-site and shrinking-core diffusion approach. Applied Catalysis B: Environmental, 2017, 203, 936-945.	10.8	45
18	Lean Breakthrough Phenomena Analysis for TWC OBD on a Natural Gas Engine using a Dual-Site Dynamic Oxygen Storage Capacity Model. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
19	Development of a Kinetic Model to Evaluate Water Storage on Commercial Cu-Zeolite SCR Catalysts during Cold Start. , 2017, , .		2
20	Identification of two types of Cu sites in Cu/SSZ-13 and their unique responses to hydrothermal aging and sulfur poisoning. Catalysis Today, 2016, 267, 3-9.	2.2	147
21	Chemical deSO _x : An effective way to recover Cu-zeolite SCR catalysts from sulfur poisoning. Catalysis Today, 2016, 267, 10-16.	2.2	54
22	Deactivation of Cu-SSZ-13 by SO ₂ exposure under SCR conditions. Catalysis Science and Technology, 2016, 6, 2565-2579.	2.1	95
23	A kinetic model for sulfur poisoning and regeneration of Cu/SSZ-13 used for NH ₃ -SCR. Applied Catalysis B: Environmental, 2016, 183, 394-406.	10.8	60
24	Reconciliation of carbon oxidation rates and activation energies based on changing nanostructure. Carbon, 2016, 98, 545-556.	5.4	58
25	Time-dependent hysteresis in the NO oxidation to NO ₂ on Pt-based catalysts. Catalysis Today, 2015, 258, 169-174.	2.2	9
26	Comparison of Cu/BEA, Cu/SSZ-13 and Cu/SAPO-34 for ammonia-SCR reactions. Catalysis Today, 2015, 258, 49-55.	2.2	103
27	A multi-site kinetic model for NH ₃ -SCR over Cu/SSZ-13. Applied Catalysis B: Environmental, 2015, 174-175, 212-224.	10.8	110
28	Impact of sulfur oxide on NH ₃ -SCR over Cu-SAPO-34. Applied Catalysis B: Environmental, 2015, 166-167, 568-579.	10.8	111
29	Global kinetic modeling of hydrothermal aging of NH ₃ -SCR over Cu-zeolites. Applied Catalysis B: Environmental, 2015, 163, 382-392.	10.8	46
30	Kinetic modeling of NH ₃ -SCR over a supported Cu zeolite catalyst using axial species distribution measurements. Applied Catalysis B: Environmental, 2015, 163, 393-403.	10.8	35
31	Combined experimental and kinetic modeling study of the bi-modal NO conversion profile on commercial Cu-SAPO-34 catalyst under standard SCR conditions. Applied Catalysis B: Environmental, 2015, 165, 27-35.	10.8	32
32	New Insights into the Unique Operation of Small Pore Cu-Zeolite SCR Catalyst: Overlapping NH ₃ Desorption and Oxidation Characteristics for Minimizing Undesired Products. , 2014, , .		8
33	The Effect of NO ₂ /NO x Feed Ratio on the NH ₃ -SCR System Over Cu-Zeolites with Varying Copper Loading. Catalysis Letters, 2014, 144, 70-80.	1.4	23
34	Selective oxidation of ammonia on mixed and dual-layer Fe-ZSM-5+Pt/Al ₂ O ₃ monolithic catalysts. Catalysis Today, 2014, 231, 105-115.	2.2	54
35	Identification of the active Cu site in standard selective catalytic reduction with ammonia on Cu-SSZ-13. Journal of Catalysis, 2014, 312, 87-97.	3.1	286
36	NO oxidation: A probe reaction on Cu-SSZ-13. Journal of Catalysis, 2014, 312, 179-190.	3.1	155

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37	The effect of Cu-loading on different reactions involved in NH ₃ -SCR over Cu-BEA catalysts. <i>Journal of Catalysis</i> , 2014, 311, 170-181.	3.1	91
38	Impact of different forms of feed sulfur on small-pore Cu-zeolite SCR catalyst. <i>Catalysis Today</i> , 2014, 231, 75-82.	2.2	75
39	Ammonia Oxidation on Structured Composite Catalysts. <i>Topics in Catalysis</i> , 2013, 56, 182-186.	1.3	22
40	Characterization of Active Species in Cu-Beta Zeolite by Temperature-Programmed Reduction Mass Spectrometry (TPR-MS). <i>Topics in Catalysis</i> , 2013, 56, 201-204.	1.3	12
41	Investigation of the Effect of Accelerated Hydrothermal Aging on the Cu Sites in a Cu-BEA Catalyst for NH ₃ -SCR Applications. <i>Topics in Catalysis</i> , 2013, 56, 317-322.	1.3	48
42	Experimental evidence of the mechanism behind NH ₃ overconsumption during SCR over Fe-zeolites. <i>Journal of Catalysis</i> , 2013, 299, 101-108.	3.1	38
43	Mitigation of Platinum Poisoning of Cu-Zeolite SCR Catalysts. <i>SAE International Journal of Engines</i> , 2013, 6, 856-861.	0.4	10
44	Effect of sulfur loading on the desulfation chemistry of a commercial lean NO _x trap catalyst. <i>Catalysis Today</i> , 2012, 197, 3-8.	2.2	11
45	Local ammonia storage and ammonia inhibition in a monolithic copper-beta zeolite SCR catalyst. <i>Applied Catalysis B: Environmental</i> , 2012, 126, 144-152.	10.8	31
46	Axially Resolved Performance of Cu-Zeolite SCR Catalysts. <i>SAE International Journal of Engines</i> , 2012, 5, 975-984.	0.4	6
47	Mechanistic investigation of hydrothermal aging of Cu-Beta for ammonia SCR. <i>Applied Catalysis B: Environmental</i> , 2011, , .	10.8	15
48	Formation and removal of Ba-carbonates or carboxylates on Pt/BaO/ γ -Al ₂ O ₃ lean NO _x traps. <i>Applied Catalysis B: Environmental</i> , 2011, 107, 26-33.	10.8	10
49	Spatially resolved temperature and gas species concentration changes during C ₃ H ₆ oxidation over a Pt/Al ₂ O ₃ catalyst following sulfur exposure. <i>Applied Catalysis A: General</i> , 2011, 397, 272-284.	2.2	20
50	Heat of adsorption for NH ₃ , NO ₂ and NO on Cu-Beta zeolite using microcalorimeter for NH ₃ SCR applications. <i>Catalysis Today</i> , 2010, 151, 237-243.	2.2	49
51	â€Fastâ€™ NO _x storage on Pt/BaO/ γ -Al ₂ O ₃ Lean NO _x Traps with NO ₂ +O ₂ and NO+O ₂ : Effects of Pt, Ba loading. <i>Catalysis Today</i> , 2010, 151, 291-303.	2.2	29
52	Overview of the practically important behaviors of zeolite-based urea-SCR catalysts, using compact experimental protocol. <i>Catalysis Today</i> , 2010, 151, 212-222.	2.2	185
53	Spatially-Resolved Thermal Degradation Induced Temperature Pattern Changes along a Commercial Lean NO _x Trap Catalyst. <i>SAE International Journal of Fuels and Lubricants</i> , 2010, 3, 723-732.	0.2	1
54	Spatially-Resolved Temperature and Gas Species Changes in a Lean-Burn Engine Emissions Control Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 10311-10322.	1.8	18

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55	Spatially resolving concentration and temperature gradients during the oxidation of propylene on Pt/Al ₂ O ₃ . Applied Catalysis A: General, 2009, 365, 301-308.	2.2	39
56	The influence of the preparation procedure on the storage and regeneration behavior of Pt and Ba based NO _x storage and reduction catalysts. Applied Catalysis B: Environmental, 2009, 88, 240-248.	10.8	38
57	Spatially-Resolved Calorimetry: Using IR Thermography to Measure Temperature and Trapped NO _x Distributions on a NO _x Adsorber Catalyst. Catalysis Letters, 2008, 125, 229-235.	1.4	19
58	Detailed kinetic modeling of NO _x storage and reduction with hydrogen as the reducing agent and in the presence of CO ₂ and H ₂ O over a Pt/Ba/Al catalyst. Journal of Catalysis, 2008, 258, 273-288.	3.1	66
59	Design of a Reaction Protocol for Decoupling Sulfur Removal and Thermal Aging Effects during Desulfation of Pt~BaO/Al ₂ O ₃ Lean NO _x Trap Catalysts. Industrial & Engineering Chemistry Research, 2007, 46, 2735-2740.	1.8	11
60	HRTEM Study of diesel soot collected from diesel particulate filters. Carbon, 2007, 45, 70-77.	5.4	239
61	The effects of regeneration conditions on NO _x and NH ₃ release from NO _x storage/reduction catalysts. Applied Catalysis B: Environmental, 2007, 74, 117-129.	10.8	71
62	A kinetic study of NO _x reduction over Pt/SiO ₂ model catalysts with hydrogen as the reducing agent. Topics in Catalysis, 2007, 42-43, 83-89.	1.3	10
63	The effect of exothermic reactions during regeneration on the NO _x trapping efficiency of a NO _x storage/reduction catalyst. Catalysis Letters, 2006, 110, 143-148.	1.4	44
64	Differential kinetic analysis of diesel particulate matter (soot) oxidation by oxygen using a step-response technique. Applied Catalysis B: Environmental, 2005, 61, 120-129.	10.8	119
65	Further evidence of multiple NO _x sorption sites on NO _x storage/reduction catalysts. Catalysis Today, 2004, 96, 21-30.	2.2	167
66	Overview of the Fundamental Reactions and Degradation Mechanisms of NO _x Storage/Reduction Catalysts. Catalysis Reviews - Science and Engineering, 2004, 46, 163-245.	5.7	800
67	Investigation of the oxidation behavior of diesel particulate matter. Catalysis Today, 2003, 88, 17-25.	2.2	62
68	Quantitative Flow-Reactor Study of Diesel Soot Oxidation Process. , 2002, , .		20
69	Effect of Preparation Method and Redox Treatment on the Reducibility and Structure of Supported Ceria~Zirconia Mixed Oxide. Journal of Catalysis, 2002, 209, 417-426.	3.1	162
70	Mechanistic Studies of the Catalytic Chemistry of NO _x in Laboratory Plasma-Catalyst Reactors. , 0, , .		7
71	Experimental Determination of the Kinetics of Diesel Soot Oxidation by O ₂ - Modeling Consequences. , 0, , .		40
72	Diesel Particulate Filter System - Effect of Critical Variables on the Regeneration Strategy Development and Optimization. SAE International Journal of Fuels and Lubricants, 0, 1, 173-183.	0.2	16

#	ARTICLE	IF	CITATIONS
73	Advanced Catalyst Solutions for Hydrocarbon Emissions Control During Rich Operation of Lean NO _x Trap Systems. , 0, , .		3
74	The Effects of Thermal Degradation on the Performance of a NO _x Storage/Reduction Catalyst. , 0, , .		3
75	Evaluation of Spatially Resolved Performance of NO _x Adsorber Catalysts. , 0, , .		3
76	Why Cu- and Fe-Zeolite SCR Catalysts Behave Differently At Low Temperatures. SAE International Journal of Fuels and Lubricants, 0, 3, 664-672.	0.2	64
77	Decoupling the Interactions of Hydrocarbons and Oxides of Nitrogen Over Diesel Oxidation Catalysts. , 0, , .		23
78	New Insights into Reaction Mechanism of Selective Catalytic Ammonia Oxidation Technology for Diesel Aftertreatment Applications. SAE International Journal of Engines, 0, 4, 1810-1821.	0.4	38
79	Investigation of the Impact of Real-World Aging on Diesel Oxidation Catalysts. SAE International Journal of Engines, 0, 5, 985-994.	0.4	17
80	Hydrocarbon Poisoning of Cu-Zeolite SCR Catalysts. , 0, , .		24
81	N ₂ O Formation and Mitigation in Diesel Aftertreatment Systems. SAE International Journal of Engines, 0, 5, 688-698.	0.4	56
82	Hydrocarbon Storage on Small-Pore Cu-Zeolite SCR Catalyst. SAE International Journal of Engines, 0, 6, 680-687.	0.4	19
83	Impact of Different Forms of Sulfur Poisoning on Diesel Oxidation Catalyst Performance. , 0, , .		11
84	Impact of Sulfur-Oxides on the Ammonia Slip Catalyst Performance. , 0, , .		8
85	SCR Architectures for Low N ₂ O Emissions. , 0, , .		15
86	Impact of Accelerated Hydrothermal Aging on Structure and Performance of Cu-SSZ-13 SCR Catalysts. SAE International Journal of Engines, 0, 8, 1181-1186.	0.4	41
87	Impact of Rh Oxidation State on NO _x Reduction Performance of Multi-Component Lean NO _x Trap (LNT) Catalyst. SAE International Journal of Engines, 0, 9, 1615-1622.	0.4	5
88	Effect of Transition Metal Ion Properties on the Catalytic Functions and Sulfation Behavior of Zeolite-Based SCR Catalysts. SAE International Journal of Engines, 0, 10, 1604-1612.	0.4	9
89	Catalyst Sulfur Poisoning and Recovery Behaviors: Key for Designing Advanced Emission Control Systems. , 0, , .		8
90	Sustained Low Temperature NO _x Reduction. , 0, , .		6

#	ARTICLE	IF	CITATIONS
91	Reactor System with Diesel Injection Capability forÂDOC Evaluations. , 0, , .		4
92	Experimental and Kinetic Modeling of Degreened and Aged Three-way Catalysts: Aging Impact on Oxygen Storage Capacity and Catalyst Performance. , 0, , .		7