Lidia Castoldi

List of Publications by Year
in descending order

72	2,717	159585 30	189892 50
papers	citations	h-index	g-index

72	72	72	1371
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	NOx adsorption study over Ptâ€“Ba/alumina catalysts: FT-IR and pulse experiments. Journal of Catalysis, 2004, 222, 377-388.	6.2	263
2	New insights in the NOx reduction mechanism with H2 over Ptâ€“Ba/Î³-Al2O3 lean NOx trap catalysts under near-isothermal conditions. Journal of Catalysis, 2006, 239, 244-254.	6.2	162
3	Study of the effect of Ba loading for catalytic activity of Ptâ€“Ba/Al2O3 model catalysts. Catalysis Today, 2004, 96, 43-52.	4.4	156
4	Intrinsic reactivity of alkaline and alkaline-earth metal oxide catalysts for oxidation of soot. Applied Catalysis B: Environmental, 2009, 90, 278-285.	20.2	154
5	On the dynamic behavior of â€œNO -storage/reductionâ€•Ptâ€“Ba/Al2O3 catalyst. Catalysis Today, 2002, 75, 431-437.	4.4	122
6	Basic catalysis and catalysis assisted by basicity: FT-IR and TPD characterization of potassium-doped alumina. Applied Catalysis A: General, 2011, 400, 61-69.	4.3	99
7	Simultaneous removal of NOx and soot on Ptâ€“Ba/Al2O3 NSR catalysts. Applied Catalysis B: Environmental, 2006, 64, 25-34.	20.2	90
8	Soot combustion: Reactivity of alkaline and alkaline earth metal oxides in full contact with soot. Catalysis Today, 2008, 136, 11-17.	4.4	74
9	In situ FT-IR and reactivity study of NOxstorage over Ptâ€“Ba/Al2O3catalysts. Physical Chemistry Chemical Physics, 2003, 5, 4428-4434.	2.8	67
10	NOx removal catalysis under lean conditions. Catalysis Today, 2006, 117, 316-320.	4.4	65
11	Catalytic behaviour of hybrid LNT/SCR systems: Reactivity and in situ FTIR study. Journal of Catalysis, 2011, 282, 128-144.	6.2	65
12	NO_xAdsorption Study over Ptâ€“Ba/Alumina Catalysts: FT-IR and Reactivity Study. Topics in Catalysis, 2004, 30/31, 181-186.	2.8	61
13	Kinetic Study of Lean NOxStorage over the Ptâ^'Ba/Al2O3System. Industrial & Engineering Chemistry Research, 2004, 43, 4522-4534.	3.7	60
14	Ptâ^'Ba/Al₂O₃ NSR Catalysts at Different Ba Loading: Characterization of Morphological, Structural, and Surface Properties. Journal of Physical Chemistry C, 2008, 112, 12869-12878.	3.1	57
15	Ru-Ba synergistic effect in dual functioning materials for cyclic CO2 capture and methanation. Applied Catalysis B: Environmental, 2021, 283, 119654.	20.2	54
16	Removal of NOx and soot over Ce/Zr/K/Me (Me = Fe, Pt, Ru, Au) oxide catalysts. Applied Catalysis B: Environmental, 2017, 201, 318-330.	20.2	53
17	Combined in situ FT-IR and TRM analysis of the NOx storage properties of Pt-Ba/Al2O3 LNT catalysts. Catalysis Today, 2007, 126, 81-89.	4.4	52
18	The NOx storage-reduction on PtK/Al2O3 Lean NOx Trap catalyst. Journal of Catalysis, 2010, 276, 335-350.	6.2	51

#	Article	IF	Citations
19	Alkaline- and alkaline-earth oxides based Lean NOx Traps: Effect of the storage component on the catalytic reactivity. Chemical Engineering Journal, 2010, 161, 416-423.	12.7	45
20	Ptâ˜'K/Al₂O₃ NSR Catalysts: Characterization of Morphological, Structural and Surface Properties. Journal of Physical Chemistry C, 2010, 114, 1127-1138.	3.1	44
21	New insights on the adsorption, thermal decomposition and reduction of NOx over Pt- and Ba-based catalysts. Applied Catalysis B: Environmental, 2018, 224, 249-263.	20.2	42
22	Low Temperature NOx Adsorption Study on Pd-Promoted Zeolites. Topics in Catalysis, 2018, 61, 2021-2034.	2.8	40
23	How to control the selectivity in the reduction of NOx with H2 over Pt-Ba/Al2O3 Lean NOx Trap catalysts. Topics in Catalysis, 2007, 42-43, 21-25.	2.8	38
24	NOx removal over a double-bed NSR-SCR reactor configuration. Catalysis Today, 2010, 151, 376-385.	4.4	37
25	Study of DPNR catalysts for combined soot oxidation and NOx reduction. Catalysis Today, 2010, 157, 384-389.	4.4	37
26	Storage Material Effects on the Performance of Ru-Based CO₂ Capture and Methanation Dual Functioning Materials. Industrial & Engineering Chemistry Research, 2021, 60, 6706-6718.	3.7	37
27	Pathways for N₂ and N₂O Formation during the Reduction of NO_x over Ptâ€"Ba/Al₂O₃ LNT Catalysts Investigated by Labeling Isotopic Experiments. Industrial & Engineering Chemistry Research, 2012, 51, 7597-7605.	3.7	34
28	High performances of Pt-K/Al2O3 versus Pt-Ba/Al2O3 LNT catalysts in the simultaneous removal of NO x and soot. Topics in Catalysis, 2007, 42-43, 293-297.	2.8	33
29	On the activity and stability of Pt-K/Al2O3 LNT catalysts for diesel soot and NOx abatement. Applied Catalysis B: Environmental, 2014, 144, 783-791.	20.2	32
30	Effect of soot on the storage-reduction performances of PtBa/Al2O3 LNT catalyst. Catalysis Today, 2011, 169, 36-44.	4.4	31
31	Silver-based catalytic materials for the simultaneous removal of soot and NO. Catalysis Today, 2015, 258, 405-415.	4.4	31
32	The influence of CO2 and H2O on the storage properties of Pt-Ba/Al2O3 LNT catalyst studied by FT-IR spectroscopy and transient microreactor experiments. Catalysis Today, 2014, 231, 116-124.	4.4	29
33	Oxidation of model soot by NO2 and O2 in the presence of water vapor. Chemical Engineering Science, 2017, 173, 560-569.	3.8	29
34	Aftertreatment Technologies for Diesel Engines: An Overview of the Combined Systems. Catalysts, 2021, 11, 653.	3.5	28
35	Low-temperature Pd/FER NOx adsorbers: Operando FT-IR spectroscopy and performance analysis. Catalysis Today, 2021, 360, 317-325.	4.4	26
36	Simultaneous Removal of NO x and Soot Over Ptâ€"Ba/Al2O3 and Ptâ€"K/Al2O3 DPNR Catalysts. Topics in Catalysis, 2009, 52, 2041-2046.	2.8	24

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37	Mechanistic aspects of the release and the reduction of NO stored on Ptâ€“Ba/Al2O3. Journal of Catalysis, 2015, 328, 270-279.	6.2	24
38	Interaction between soot and stored NO during operation of LNT Ptâ€“Ba/Al2O3 catalysts. Catalysis Today, 2012, 184, 271-278.	4.4	23
39	The NOx Reduction by CO on a Ptâˆ’K/Al2O3 Lean NOx Trap Catalyst. Journal of Physical Chemistry C, 2011, 115, 1277-1286.	3.1	22
40	Characterization and reactivity of Ce-promoted PtBa lean NOx trap catalysts. Catalysis Today, 2012, 197, 178-189.	4.4	22
41	Simultaneous removal of soot and NO over K- and Ba-doped ruthenium supported catalysts. Catalysis Today, 2016, 267, 119-129.	4.4	21
42	Effect of water and ammonia on surface species formed during NOx storageâ€“reduction cycles over Ptâ€“K/Al2O3 and Ptâ€“Ba/Al2O3 catalysts. Physical Chemistry Chemical Physics, 2013, 15, 13409.	2.8	18
43	Storage and Reduction of NO x Over LNT Catalysts. Catalysis Letters, 2015, 145, 483-504.	2.6	18
44	Reaction between soot and stored NOX over K-based LNT catalysts investigated by temperature programmed methods and labeling isotopic experiments. Catalysis Today, 2012, 197, 228-235.	4.4	17
45	In-depth insights into N2O formation over Rh- and Pt-based LNT catalysts. Catalysis Today, 2019, 320, 141-151.	4.4	17
46	An Overview on the Catalytic Materials Proposed for the Simultaneous Removal of NOx and Soot. Materials, 2020, 13, 3551.	2.9	17
47	Reduction by CO of NOx species stored onto Ptâ€“K/Al2O3 and Ptâ€“Ba/Al2O3 lean NOx traps. Catalysis Today, 2011, 176, 399-403.	4.4	16
48	Study of N2O Formation over Rh- and Pt-Based LNT Catalysts. Catalysts, 2016, 6, 36.	3.5	16
49	Carbon-supported WO_xâ€“Ru-based catalysts for the selective hydrogenolysis of glycerol to 1,2-propanediol. Catalysis Science and Technology, 2022, 12, 259-272.	4.1	15
50	Labeled 15NO Study on N2 and N2O Formation Over Ptâ€“Ba/Al2O3 NSR Catalysts. Topics in Catalysis, 2013, 56, 7-13.	2.8	13
51	Effect of potassium on a model soot combustion: Raman and HRTEM evidences. Aerosol Science and Technology, 2016, 50, 405-415.	3.1	12
52	Mechanistic Investigation of the Reduction of NOx over Pt- and Rh-Based LNT Catalysts. Catalysts, 2016, 6, 46.	3.5	11
53	n-Heptane As a Reducing Agent in the NO_x Removal over a Ptâ€“Ba/Al₂O₃ NSR Catalyst. ACS Catalysis, 2014, 4, 3261-3272.	11.2	10
54	Chapter 6 Identification of the reaction networks of the NOx storage/reduction in lean NOx trap systems. Studies in Surface Science and Catalysis, 2007, , 175-208.	1.5	9

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55	The NO x reduction mechanism by H2 under near isothermal conditions over Ptâ€“Ba/Al2O3 Lean NO x Trap systems. Topics in Catalysis, 2007, 42-43, 189-193.	2.8	8
56	Effect of Soot During Operation of a Ptâ€“K/Al2O3 LNT Catalyst. Topics in Catalysis, 2013, 56, 477-482.	2.8	8
57	Simultaneous Removal of Soot and NOx Over Silver and Ruthenium-Based Catalysts. Topics in Catalysis, 2017, 60, 209-213.	2.8	8
58	Dual-layer AdSCR monolith catalysts: a new solution for NOx emissions control in cold start applications. Applied Catalysis B: Environmental, 2022, , 121544.	20.2	8
59	The Pt-Ba Interaction in Lean NOx Trap Systems. , 2005, , .		7
60	Mechanistic Aspects of N2O Formation Over Pt-Based Lean NOx Trap Catalysts. Topics in Catalysis, 2016, 59, 976-981.	2.8	7
61	NOx Adsorption Over Ce/Zr-Based Catalysts Doped with Cu and Ba. Topics in Catalysis, 2019, 62, 140-149.	2.8	7
62	FTIR and Transient Reactivity Experiments of the Reduction by H2, CO and HCs of NO x Stored Over Ptâ€“Ba/Al2O3 LNTs. Topics in Catalysis, 2013, 56, 193-200.	2.8	6
63	Dynamics and Selectivity of N2O Formation/Reduction During Regeneration Phase of Pt-Based Catalysts. Topics in Catalysis, 2018, 61, 1672-1683.	2.8	6
64	Al2O3-supported Pt/Rh catalysts for NOx removal under lean conditions. Applied Catalysis A: General, 2019, 581, 43-57.	4.3	6
65	A Low Temperature Pathway Operating the Reduction of Stored Nitrates in Pt-Ba/Al2O3 Lean NOx Trap Systems. , 2006, , .		5
66	Mechanism of the Reduction by Ammonia of Nitrates Stored onto a Ptâ€“Ba/Al2O3 LNT Catalyst. Topics in Catalysis, 2013, 56, 1906-1915.	2.8	5
67	The NO x Reduction Mechanism by H2 under near Isothermal Conditions over Ptâ€“K/Al2O3 Lean NO x Trap Systems. Topics in Catalysis, 2009, 52, 1713-1718.	2.8	4
68	Influence of solfonated melamine formaldehyde condensate on the quality of building blocks production by extrusion of cementâ€“clay pastes. Applied Clay Science, 2007, 35, 85-93.	5.2	3
69	New Insights on the Release and Reduction of NOx Stored over PGM-Based LNT Catalysts. Topics in Catalysis, 2017, 60, 250-254.	2.8	3
70	NOx Reduction Pathways during LNT Operation over Ceria Containing Catalysts: Effect of Copper Presence and Barium Content. Applied Sciences (Switzerland), 2021, 11, 5700.	2.5	2
71	Chapter 11. Combined LNTâ€“SCR Catalysts for NOx Reduction from Lean Exhaust Gas. RSC Catalysis Series, 2018, , 321-352.	0.1	1
72	Pathways for N2O Formation/Reduction During Operation of Commercial LNT Catalysts. Topics in Catalysis, 2019, 62, 18-26.	2.8	0