

# Lidia Castoldi

## List of Publications by Year in descending order

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72  
papers

2,717  
citations

159585  
30  
h-index

189892  
50  
g-index

72  
all docs

72  
docs citations

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times ranked

1371  
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon-supported WO <sub>3</sub> /x-Ru-based catalysts for the selective hydrogenolysis of glycerol to 1,2-propanediol. Catalysis Science and Technology, 2022, 12, 259-272.	4.1	15
2	Dual-layer AdSCR monolith catalysts: a new solution for NO <sub>x</sub> emissions control in cold start applications. Applied Catalysis B: Environmental, 2022, , 121544.	20.2	8
3	Low-temperature Pd/Fe NO <sub>x</sub> adsorbers: Operando FT-IR spectroscopy and performance analysis. Catalysis Today, 2021, 360, 317-325.	4.4	26
4	Ru-Ba synergistic effect in dual functioning materials for cyclic CO <sub>2</sub> capture and methanation. Applied Catalysis B: Environmental, 2021, 283, 119654.	20.2	54
5	Storage Material Effects on the Performance of Ru-Based CO <sub>2</sub> Capture and Methanation Dual Functioning Materials. Industrial & Engineering Chemistry Research, 2021, 60, 6706-6718.	3.7	37
6	Aftertreatment Technologies for Diesel Engines: An Overview of the Combined Systems. Catalysts, 2021, 11, 653.	3.5	28
7	NO <sub>x</sub> 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
8	An Overview on the Catalytic Materials Proposed for the Simultaneous Removal of NO <sub>x</sub> and Soot. Materials, 2020, 13, 3551.	2.9	17
9	Al <sub>2</sub> O <sub>3</sub> -supported Pt/Rh catalysts for NO <sub>x</sub> removal under lean conditions. Applied Catalysis A: General, 2019, 581, 43-57.	4.3	6
10	NO <sub>x</sub> Adsorption Over Ce/Zr-Based Catalysts Doped with Cu and Ba. Topics in Catalysis, 2019, 62, 140-149.	2.8	7
11	Pathways for N <sub>2</sub> O Formation/Reduction During Operation of Commercial LNT Catalysts. Topics in Catalysis, 2019, 62, 18-26.	2.8	0
12	In-depth insights into N <sub>2</sub> O formation over Rh- and Pt-based LNT catalysts. Catalysis Today, 2019, 320, 141-151.	4.4	17
13	New insights on the adsorption, thermal decomposition and reduction of NO <sub>x</sub> over Pt- and Ba-based catalysts. Applied Catalysis B: Environmental, 2018, 224, 249-263.	20.2	42
14	Dynamics and Selectivity of N <sub>2</sub> O Formation/Reduction During Regeneration Phase of Pt-Based Catalysts. Topics in Catalysis, 2018, 61, 1672-1683.	2.8	6
15	Low Temperature NO <sub>x</sub> Adsorption Study on Pd-Promoted Zeolites. Topics in Catalysis, 2018, 61, 2021-2034.	2.8	40
16	Chapter 11. Combined LNT+SCR Catalysts for NO <sub>x</sub> Reduction from Lean Exhaust Gas. RSC Catalysis Series, 2018, , 321-352.	0.1	1
17	Simultaneous Removal of Soot and NO <sub>x</sub> Over Silver and Ruthenium-Based Catalysts. Topics in Catalysis, 2017, 60, 209-213.	2.8	8
18	New Insights on the Release and Reduction of NO <sub>x</sub> Stored over PGM-Based LNT Catalysts. Topics in Catalysis, 2017, 60, 250-254.	2.8	3

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19	Oxidation of model soot by NO <sub>2</sub> and O <sub>2</sub> in the presence of water vapor. <i>Chemical Engineering Science</i> , 2017, 173, 560-569.	3.8	29
20	Removal of NO <sub>x</sub> and soot over Ce/Zr/K/Me (Me = Fe, Pt, Ru, Au) oxide catalysts. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 318-330.	20.2	53
21	Study of N <sub>2</sub> O Formation over Rh- and Pt-Based LNT Catalysts. <i>Catalysts</i> , 2016, 6, 36.	3.5	16
22	Mechanistic Investigation of the Reduction of NO <sub>x</sub> over Pt- and Rh-Based LNT Catalysts. <i>Catalysts</i> , 2016, 6, 46.	3.5	11
23	Mechanistic Aspects of N <sub>2</sub> O Formation Over Pt-Based Lean NO <sub>x</sub> Trap Catalysts. <i>Topics in Catalysis</i> , 2016, 59, 976-981.	2.8	7
24	Simultaneous removal of soot and NO over K- and Ba-doped ruthenium supported catalysts. <i>Catalysis Today</i> , 2016, 267, 119-129.	4.4	21
25	Effect of potassium on a model soot combustion: Raman and HRTEM evidences. <i>Aerosol Science and Technology</i> , 2016, 50, 405-415.	3.1	12
26	Silver-based catalytic materials for the simultaneous removal of soot and NO. <i>Catalysis Today</i> , 2015, 258, 405-415.	4.4	31
27	Storage and Reduction of NO <sub>x</sub> Over LNT Catalysts. <i>Catalysis Letters</i> , 2015, 145, 483-504.	2.6	18
28	Mechanistic aspects of the release and the reduction of NO stored on Pt-Ba/Al <sub>2</sub> O <sub>3</sub> . <i>Journal of Catalysis</i> , 2015, 328, 270-279.	6.2	24
29	The influence of CO <sub>2</sub> and H <sub>2</sub> O on the storage properties of Pt-Ba/Al <sub>2</sub> O <sub>3</sub> LNT catalyst studied by FT-IR spectroscopy and transient microreactor experiments. <i>Catalysis Today</i> , 2014, 231, 116-124.	4.4	29
30	n-Heptane As a Reducing Agent in the NO <sub>x</sub> Removal over a Pt-Ba/Al <sub>2</sub> O <sub>3</sub> /O <sub>3</sub> NSR Catalyst. <i>ACS Catalysis</i> , 2014, 4, 3261-3272.	11.2	10
31	On the activity and stability of Pt-K/Al <sub>2</sub> O <sub>3</sub> LNT catalysts for diesel soot and NO <sub>x</sub> abatement. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 783-791.	20.2	32
32	Mechanism of the Reduction by Ammonia of Nitrates Stored onto a Pt-Ba/Al <sub>2</sub> O <sub>3</sub> LNT Catalyst. <i>Topics in Catalysis</i> , 2013, 56, 1906-1915.	2.8	5
33	Labeled <sup>15</sup> N <sub>2</sub> Study on N <sub>2</sub> and N <sub>2</sub> O Formation Over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> NSR Catalysts. <i>Topics in Catalysis</i> , 2013, 56, 7-13.	2.8	13
34	Effect of Soot During Operation of a Pt-K/Al <sub>2</sub> O <sub>3</sub> LNT Catalyst. <i>Topics in Catalysis</i> , 2013, 56, 477-482.	2.8	8
35	Effect of water and ammonia on surface species formed during NO <sub>x</sub> storage-reduction cycles over Pt-K/Al <sub>2</sub> O <sub>3</sub> and Pt-Ba/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13409.	2.8	18
36	FTIR and Transient Reactivity Experiments of the Reduction by H <sub>2</sub> , CO and HCs of NO <sub>x</sub> Stored Over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> LNTs. <i>Topics in Catalysis</i> , 2013, 56, 193-200.	2.8	6

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37	Characterization and reactivity of Ce-promoted PtBa lean NO <sub>x</sub> trap catalysts. <i>Catalysis Today</i> , 2012, 197, 178-189.	4.4	22
38	Reaction between soot and stored NO <sub>x</sub> over K-based LNT catalysts investigated by temperature programmed methods and labeling isotopic experiments. <i>Catalysis Today</i> , 2012, 197, 228-235.	4.4	17
39	Pathways for N <sub>2</sub> and N <sub>2</sub> O Formation during the Reduction of NO <sub>x</sub> over Pt <sup>δ</sup> Ba/Al <sub>2</sub> O <sub>3</sub> LNT Catalysts Investigated by Labeling Isotopic Experiments. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 7597-7605.	3.7	34
40	Interaction between soot and stored NO during operation of LNT Pt <sup>δ</sup> Ba/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Catalysis Today</i> , 2012, 184, 271-278.	4.4	23
41	The NO <sub>x</sub> Reduction by CO on a Pt <sup>δ</sup> K/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap Catalyst. <i>Journal of Physical Chemistry C</i> , 2011, 115, 1277-1286.	3.1	22
42	Catalytic behaviour of hybrid LNT/SCR systems: Reactivity and in situ FTIR study. <i>Journal of Catalysis</i> , 2011, 282, 128-144.	6.2	65
43	Reduction by CO of NO <sub>x</sub> species stored onto Pt <sup>δ</sup> K/Al <sub>2</sub> O <sub>3</sub> and Pt <sup>δ</sup> Ba/Al <sub>2</sub> O <sub>3</sub> lean NO <sub>x</sub> traps. <i>Catalysis Today</i> , 2011, 176, 399-403.	4.4	16
44	Effect of soot on the storage-reduction performances of PtBa/Al <sub>2</sub> O <sub>3</sub> LNT catalyst. <i>Catalysis Today</i> , 2011, 169, 36-44.	4.4	31
45	Basic catalysis and catalysis assisted by basicity: FT-IR and TPD characterization of potassium-doped alumina. <i>Applied Catalysis A: General</i> , 2011, 400, 61-69.	4.3	99
46	Alkaline- and alkaline-earth oxides based Lean NO <sub>x</sub> Traps: Effect of the storage component on the catalytic reactivity. <i>Chemical Engineering Journal</i> , 2010, 161, 416-423.	12.7	45
47	The NO <sub>x</sub> storage-reduction on PtK/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap catalyst. <i>Journal of Catalysis</i> , 2010, 276, 335-350.	6.2	51
48	NO <sub>x</sub> removal over a double-bed NSR-SCR reactor configuration. <i>Catalysis Today</i> , 2010, 151, 376-385.	4.4	37
49	Study of DPNR catalysts for combined soot oxidation and NO <sub>x</sub> reduction. <i>Catalysis Today</i> , 2010, 157, 384-389.	4.4	37
50	Pt <sup>δ</sup> K/Al <sub>2</sub> O <sub>3</sub> NSR Catalysts: Characterization of Morphological, Structural and Surface Properties. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1127-1138.	3.1	44
51	The NO <sub>x</sub> Reduction Mechanism by H <sub>2</sub> under near Isothermal Conditions over Pt <sup>δ</sup> K/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap Systems. <i>Topics in Catalysis</i> , 2009, 52, 1713-1718.	2.8	4
52	Simultaneous Removal of NO <sub>x</sub> and Soot Over Pt <sup>δ</sup> Ba/Al <sub>2</sub> O <sub>3</sub> and Pt <sup>δ</sup> K/Al <sub>2</sub> O <sub>3</sub> DPNR Catalysts. <i>Topics in Catalysis</i> , 2009, 52, 2041-2046.	2.8	24
53	Intrinsic reactivity of alkaline and alkaline-earth metal oxide catalysts for oxidation of soot. <i>Applied Catalysis B: Environmental</i> , 2009, 90, 278-285.	20.2	154
54	Soot combustion: Reactivity of alkaline and alkaline earth metal oxides in full contact with soot. <i>Catalysis Today</i> , 2008, 136, 11-17.	4.4	74

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55	Pt <sup>δ</sup> Ba/Al <sub>2</sub> O <sub>3</sub> 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
56	Chapter 6 Identification of the reaction networks of the NO <sub>x</sub> storage/reduction in lean NO <sub>x</sub> trap systems. Studies in Surface Science and Catalysis, 2007, , 175-208.	1.5	9
57	Influence of solfonated melamine formaldehyde condensate on the quality of building blocks production by extrusion of cement-clay pastes. Applied Clay Science, 2007, 35, 85-93.	5.2	3
58	Combined in situ FT-IR and TRM analysis of the NO <sub>x</sub> storage properties of Pt-Ba/Al <sub>2</sub> O <sub>3</sub> LNT catalysts. Catalysis Today, 2007, 126, 81-89.	4.4	52
59	How to control the selectivity in the reduction of NO <sub>x</sub> with H <sub>2</sub> over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap catalysts. Topics in Catalysis, 2007, 42-43, 21-25.	2.8	38
60	The NO <sub>x</sub> reduction mechanism by H <sub>2</sub> under near isothermal conditions over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap systems. Topics in Catalysis, 2007, 42-43, 189-193.	2.8	8
61	High performances of Pt-K/Al <sub>2</sub> O <sub>3</sub> versus Pt-Ba/Al <sub>2</sub> O <sub>3</sub> LNT catalysts in the simultaneous removal of NO <sub>x</sub> and soot. Topics in Catalysis, 2007, 42-43, 293-297.	2.8	33
62	A Low Temperature Pathway Operating the Reduction of Stored Nitrates in Pt-Ba/Al <sub>2</sub> O <sub>3</sub> Lean NO <sub>x</sub> Trap Systems. , 2006, , .		5
63	NO <sub>x</sub> removal catalysis under lean conditions. Catalysis Today, 2006, 117, 316-320.	4.4	65
64	New insights in the NO <sub>x</sub> reduction mechanism with H <sub>2</sub> over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> lean NO <sub>x</sub> trap catalysts under near-isothermal conditions. Journal of Catalysis, 2006, 239, 244-254.	6.2	162
65	Simultaneous removal of NO <sub>x</sub> and soot on Pt-Ba/Al <sub>2</sub> O <sub>3</sub> NSR catalysts. Applied Catalysis B: Environmental, 2006, 64, 25-34.	20.2	90
66	The Pt-Ba Interaction in Lean NO <sub>x</sub> Trap Systems. , 2005, , .		7
67	NO <sub>x</sub> Adsorption Study over Pt-Ba/Alumina Catalysts: FT-IR and Reactivity Study. Topics in Catalysis, 2004, 30/31, 181-186.	2.8	61
68	NO <sub>x</sub> adsorption study over Pt-Ba/alumina catalysts: FT-IR and pulse experiments. Journal of Catalysis, 2004, 222, 377-388.	6.2	263
69	Study of the effect of Ba loading for catalytic activity of Pt-Ba/Al <sub>2</sub> O <sub>3</sub> model catalysts. Catalysis Today, 2004, 96, 43-52.	4.4	156
70	Kinetic Study of Lean NO <sub>x</sub> Storage over the Pt-Ba/Al <sub>2</sub> O <sub>3</sub> System. Industrial & Engineering Chemistry Research, 2004, 43, 4522-4534.	3.7	60
71	In situ FT-IR and reactivity study of NO <sub>x</sub> storage over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> catalysts. Physical Chemistry Chemical Physics, 2003, 5, 4428-4434.	2.8	67
72	On the dynamic behavior of NO <sub>x</sub> storage/reduction over Pt-Ba/Al <sub>2</sub> O <sub>3</sub> catalyst. Catalysis Today, 2002, 75, 431-437.	4.4	122