BeÃ±at Pereda-Ayo

List of Publications by Year
in descending order

58 papers	2,041 citations	257101 24 h-index	243296 44 g-index
58 all docs	58 docs citations	58 times ranked	1789 citing authors

#	Article	IF	Citations
1	Isotopic and in situ DRIFTS study of the CO2 methanation mechanism using Ni/CeO2 and Ni/Al2O3 catalysts. Applied Catalysis B: Environmental, 2020, 265, 118538.	10.8	199
2	Ni catalysts with La as promoter supported over Y- and BETA- zeolites for CO2 methanation. Applied Catalysis B: Environmental, 2018, 238, 393-403.	10.8	175
3	Role of the different copper species on the activity of Cu/zeolite catalysts for SCR of NOx with NH3. Applied Catalysis B: Environmental, 2014, 147, 420-428.	10.8	163
4	Key factors in Sr-doped LaBO3 (Bâ€¯=â€¯Co or Mn) perovskites for NO oxidation in efficient diesel exhaust purification. Applied Catalysis B: Environmental, 2017, 213, 198-210.	10.8	124
5	Effect of metal loading on the CO2 methanation: A comparison between alumina supported Ni and Ru catalysts. Catalysis Today, 2020, 356, 419-432.	2.2	111
6	Ni loading effects on dual function materials for capture and in-situ conversion of CO2 to CH4 using CaO or Na2CO3. Journal of CO2 Utilization, 2019, 34, 576-587.	3.3	109
7	Mechanism of the CO2 storage and in situ hydrogenation to CH4. Temperature and adsorbent loading effects over Ru-CaO/Al2O3 and Ru-Na2CO3/Al2O3 catalysts. Applied Catalysis B: Environmental, 2019, 256, 117845.	10.8	100
8	State of the art in catalytic oxidation of chlorinated volatile organic compounds. Chemical Papers, 2014, 68, .	1.0	85
9	Cu-zeolite catalysts for NO x removal by selective catalytic reduction with NH 3 and coupled to NO storage/reduction monolith in diesel engine exhaust aftertreatment systems. Applied Catalysis B: Environmental, 2016, 187, 419-427.	10.8	71
10	Cu-zeolite NH 3 -SCR catalysts for NO x removal in the combined NSRâ€“SCR technology. Chemical Engineering Journal, 2012, 207-208, 10-17.	6.6	56
11	Ni/LnOx Catalysts (Ln=La, Ce or Pr) for CO₂ Methanation. ChemCatChem, 2019, 11, 810-819.	1.8	44
12	Influence of ceria loading on the NOx storage and reduction performance of model Ptâ€“Ba/Al2O3 NSR catalyst. Catalysis Today, 2015, 241, 133-142.	2.2	35
13	Influence of the preparation procedure of NSR monolithic catalysts on the Pt-Ba dispersion and distribution. Applied Catalysis A: General, 2009, 363, 73-80.	2.2	34
14	Strontium doping and impregnation onto alumina improve the NOx storage and reduction capacity of LaCoO3 perovskites. Catalysis Today, 2019, 333, 208-218.	2.2	33
15	Regeneration mechanism of a Lean NOx Trap (LNT) catalyst in the presence of NO investigated using isotope labelling techniques. Journal of Catalysis, 2012, 285, 177-186.	3.1	32
16	Steady-state NH 3 -SCR global model and kinetic parameter estimation for NO x removal in diesel engine exhaust aftertreatment with Cu/chabazite. Catalysis Today, 2017, 296, 95-104.	2.2	32
17	Preparation and characterisation of CuO/Al2O3 films deposited onto stainless steel microgrids for CO oxidation. Applied Catalysis B: Environmental, 2014, 160-161, 629-640.	10.8	31
18	Catalytic oxidation of trichloroethylene over Fe-zeolites. Catalysis Today, 2011, 176, 357-360.	2.2	30

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19	Control of NO storage and reduction in NSR bed for designing combined NSRâ€“SCR systems. Catalysis Today, 2011, 172, 66-72.	2.2	30
20	Study on the promotional effect of lanthana addition on the performance of hydroxyapatite-supported Ni catalysts for the CO2 methanation reaction. Applied Catalysis B: Environmental, 2022, 314, 121500.	10.8	29
21	Pd-doped or Pd impregnated 30% La0.7Sr0.3CoO3/Al2O3 catalysts for NOx storage and reduction. Applied Catalysis B: Environmental, 2019, 259, 118052.	10.8	27
22	Tuning operational conditions for efficient NOx storage and reduction over a Ptâ€“Ba/Al2O3 monolith catalyst. Applied Catalysis B: Environmental, 2010, 96, 329-337.	10.8	26
23	Tuning basicity of dual function materials widens operation temperature window for efficient CO2 adsorption and hydrogenation to CH4. Journal of CO2 Utilization, 2022, 58, 101922.	3.3	26
24	Performance of NO storageâ€“reduction catalyst in the temperatureâ€“reductant concentration domain by response surface methodology. Chemical Engineering Journal, 2011, 169, 58-67.	6.6	25
25	On the effect of reduction and ageing on the TWC activity of Pd/Ce0.68Zr0.32O2 under simulated automotive exhausts. Catalysis Today, 2012, 180, 88-95.	2.2	25
26	Alternate cycles of CO₂ storage and <i>in situ</i> hydrogenation to CH₄ on Niâ€“Na₂CO₃/Al₂O₃: influence of promoter addition and calcination temperature. Sustainable Energy and Fuels, 2021, 5, 1194-1210.	2.5	24
27	Controlling the selectivity to N2O over Pt/Ba/Al2O3 NOX storage/reduction catalysts. Catalysis Today, 2011, 176, 324-327.	2.2	23
28	Evaluation of Cu/SAPO-34 Catalysts Prepared by Solid-State and Liquid Ion-Exchange Methods for NO<i>_x</i> Removal by NH₃-SCR. ACS Omega, 2019, 4, 14699-14713.	1.6	23
29	Influence of the washcoat characteristics on NH3-SCR behavior of Cu-zeolite monoliths. Catalysis Today, 2013, 216, 82-89.	2.2	22
30	Modeling the CO2 capture and in situ conversion to CH4 on dual function Ru-Na2CO3/Al2O3 catalyst. Journal of CO2 Utilization, 2020, 42, 101351.	3.3	22
31	Tailoring perovskite surface composition to design efficient lean NOx trap Pdâ€“La1-xAxCoO3/Al2O3-type catalysts (with Aâ€‾=â€‾Sr or Ba). Applied Catalysis B: Environmental, 2020, 266, 118628.	10.8	22
32	On the Cu species in Cu/beta catalysts related to DeNOx performance of coupled NSR-SCR technology using sequential monoliths and dual-layer monolithic catalysts. Catalysis Today, 2016, 273, 72-82.	2.2	21
33	Perovskite-Based Catalysts as Efficient, Durable, and Economical NOx Storage and Reduction Systems. Catalysts, 2020, 10, 208.	1.6	18
34	Screening of Feâ€“Cu-Zeolites Prepared by Different Methodology for Application in NSRâ€“SCR Combined DeNOx Systems. Topics in Catalysis, 2013, 56, 215-221.	1.3	17
35	Intrinsic kinetics of CO2 methanation on low-loaded Ni/Al2O3 catalyst: Mechanism, model discrimination and parameter estimation. Journal of CO2 Utilization, 2022, 57, 101888.	3.3	17
36	Design of CeO₂-supported LaNiO₃perovskites as precursors of highly active catalysts for CO₂methanation. Catalysis Science and Technology, 2021, 11, 6065-6079.	2.1	16

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37	Influence of platinum and barium precursors on the NSR behavior of Ptâ€“Ba/Al2O3 monoliths for lean-burn engines. Catalysis Today, 2009, 147, S244-S249.	2.2	15
38	NO_{<i>x</i>} Storage and Reduction Coupled with Selective Catalytic Reduction for NO_{<i>x</i>} Removal in Lightâ€Duty Vehicles. ChemCatChem, 2018, 10, 2928-2940.	1.8	14
39	Applicability of LaNiO3-derived catalysts as dual function materials for CO2 capture and in-situ conversion to methane. Fuel, 2022, 320, 123842.	3.4	14
40	Kinetics, Model Discrimination, and Parameters Estimation of CO₂ Methanation on Highly Active Ni/CeO₂ Catalyst. Industrial & Engineering Chemistry Research, 2022, 61, 10419-10435.	1.8	14
41	New copper species generated on Cu/Al2O3-based microreactors for COPROX activity enhancement. International Journal of Hydrogen Energy, 2015, 40, 7318-7328.	3.8	11
42	Influence of H2, CO, C3H6, and C7H8 as Reductants on DeNOx Behavior of Dual Monoliths for NOx Storage/Reduction Coupled with Selective Catalytic Reduction. Industrial & Engineering Chemistry Research, 2019, 58, 7001-7013.	1.8	11
43	Simulation-based optimization of cycle timing for CO2 capture and hydrogenation with dual function catalyst. Catalysis Today, 2022, 394-396, 314-324.	2.2	11
44	Ba-doped vs. Sr-doped LaCoO3 perovskites as base catalyst in diesel exhaust purification. Molecular Catalysis, 2020, 488, 110913.	1.0	10
45	On the Effect of Reduction and Ageing on the TWC Activity of Pt/Ce0.68Zr0.32O2 under Simulated Automotive Exhausts. Topics in Catalysis, 2013, 56, 352-357.	1.3	9
46	Characterization of Pt and Ba over alumina washcoated monolith for NOx storage and reduction (NSR) by FIB-SEM. Catalysis Today, 2013, 216, 50-56.	2.2	9
47	Optimal Operating Conditions of Coupled Sequential NOx Storage/Reduction and Cu/CHA Selective Catalytic Reduction Monoliths. Topics in Catalysis, 2017, 60, 30-39.	1.3	8
48	Effect of the Presence of Ceria in the NSR Catalyst on the Hydrothermal Resistance and Global DeNOx Performance of Coupled LNTâ€“SCR Systems. Topics in Catalysis, 2018, 61, 1993-2006.	1.3	8
49	Boosting NO_{<i>x</i>} Removal by Perovskite-Based Catalyst in NSRâ€“SCR Diesel Aftertreatment Systems. Industrial & Engineering Chemistry Research, 2021, 60, 6525-6537.	1.8	8
50	Aging studies on dual function materials Ru/Ni-Na/Ca-Al2O3 for CO2 adsorption and hydrogenation to CH4. Journal of Environmental Chemical Engineering, 2022, 10, 107951.	3.3	6
51	Performance of Cu-ZSM-5 in a Coupled Monolith NSR-SCR System for NOx Removal in Lean-Burn Engine Exhaust. Topics in Catalysis, 2016, 59, 259-267.	1.3	5
52	EuropaCat IX. Platinum Metals Review, 2010, 54, 103-111.	1.5	3
53	Catalytic Properties of CuO/Al2O3-Based Microreactors in SCR of NOx with NH3. Topics in Catalysis, 2016, 59, 1002-1007.	1.3	3
54	Chapter 2. NSR Technology. RSC Catalysis Series, 2018, , 36-66.	0.1	2

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55	Diffusional Behavior of New Insulating Gas Mixtures as Alternatives to the SF6-Use in Medium Voltage Switchgear. Applied Sciences (Switzerland), 2022, 12, 1436.	1.3	2
56	Aftertreatment DeNOx Systems for Future Light Duty Lean-Burned Emission Regulations. Catalysts, 2021, 11, 188.	1.6	1
57	Catalytic Oxidation of Volatile Organic Compounds: Chlorinated Hydrocarbons. , 2014, , 91-131.		0
58	Perovskite-Based Formulations as Rival Platinum Catalysts for NOx Removal in Diesel Exhaust Aftertreatment. , 2020, , .		0