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	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
2	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
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	Design of CeO₂-supported LaNiO₃perovskites as precursors of highly active catalysts for CO₂methanation. Catalysis Science and Technology, 2021, 11, 6065-6079.	2.1	16
11	Aftertreatment DeNOx Systems for Future Light Duty Lean-Burned Emission Regulations. Catalysts, 2021, 11, 188.	1.6	1
12	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
13	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
14	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
15	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
16	Perovskite-Based Formulations as Rival Platinum Catalysts for NOx Removal in Diesel Exhaust Aftertreatment. , 2020, , .		0
17	Ba-doped vs. Sr-doped LaCoO3 perovskites as base catalyst in diesel exhaust purification. Molecular Catalysis, 2020, 488, 110913.	1.0	10
18	Perovskite-Based Catalysts as Efficient, Durable, and Economical NOx Storage and Reduction Systems. Catalysts, 2020, 10, 208.	1.6	18

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19	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
20	Ni/LnOx Catalysts (Ln=La, Ce or Pr) for CO₂ Methanation. ChemCatChem, 2019, 11, 810-819.	1.8	44
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	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
23	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
24	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
25	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
26	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
27	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
28	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
29	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
30	Chapter 2. NSR Technology. RSC Catalysis Series, 2018, , 36-66.	0.1	2
31	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
32	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
33	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
34	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
35	Catalytic Properties of CuO/Al2O3-Based Microreactors in SCR of NOx with NH3. Topics in Catalysis, 2016, 59, 1002-1007.	1.3	3
36	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

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37	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
38	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
39	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
40	Catalytic Oxidation of Volatile Organic Compounds: Chlorinated Hydrocarbons. , 2014, , 91-131.		0
41	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
42	State of the art in catalytic oxidation of chlorinated volatile organic compounds. Chemical Papers, 2014, 68, .	1.0	85
43	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
44	Influence of the washcoat characteristics on NH3-SCR behavior of Cu-zeolite monoliths. Catalysis Today, 2013, 216, 82-89.	2.2	22
45	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
46	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
47	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
48	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
49	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
50	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
51	Catalytic oxidation of trichloroethylene over Fe-zeolites. Catalysis Today, 2011, 176, 357-360.	2.2	30
52	Controlling the selectivity to N2O over Pt/Ba/Al2O3 NOX storage/reduction catalysts. Catalysis Today, 2011, 176, 324-327.	2.2	23
53	Control of NO storage and reduction in NSR bed for designing combined NSRâ€"SCR systems. Catalysis Today, 2011, 172, 66-72.	2.2	30
54	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

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55	EuropaCat IX. Platinum Metals Review, 2010, 54, 103-111.	1.5	3
56	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
57	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
58	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