Alfonso Caballero

List of Publications by Year
in descending order

94 papers	4,733 citations	109321 35 h-index	102487 66 g-index
95 all docs	95 docs citations	95 times ranked	6309 citing authors

#	Article	IF	Citations
1	Interface Effects for Cu, CuO, and Cu2O Deposited on SiO2and ZrO2. XPS Determination of the Valence State of Copper in Cu/SiO2and Cu/ZrO2Catalysts. Journal of Physical Chemistry B, 2002, 106, 6921-6929.	2.6	526
2	The selection of experimental conditions in temperature-programmed reduction experiments. Journal of the Chemical Society Faraday Transactions I, 1988, 84, 2369.	1.0	234
3	XPS investigation of the reaction of carbon with NO, O2, N2 and H2O plasmas. Carbon, 2007, 45, 89-96.	10.3	222
4	Morphology changes induced by strong metalâ€“support interaction on a Niâ€“ceria catalytic system. Journal of Catalysis, 2008, 257, 307-314.	6.2	202
5	Synthesis and characterization of a LaNiO3 perovskite as precursor for methane reforming reactions catalysts. Applied Catalysis B: Environmental, 2010, 93, 346-353.	20.2	189
6	Structural, Optical, and Photoelectrochemical Properties of Mn+â^'TiO2 Model Thin Film Photocatalysts. Journal of Physical Chemistry B, 2004, 108, 17466-17476.	2.6	164
7	Complete n-hexane oxidation over supported Mnâ€“Co catalysts. Applied Catalysis B: Environmental, 2010, 94, 46-54.	20.2	144
8	In situ spectroscopic detection ofSMSI effect in a Ni/CeO₂system: hydrogen-induced burial and dig out of metallic nickel. Chemical Communications, 2010, 46, 1097-1099.	4.1	140
9	Modifying the Size of Nickel Metallic Particles by H₂/CO Treatment in Ni/ZrO₂ Methane Dry Reforming Catalysts. ACS Catalysis, 2011, 1, 82-88.	11.2	128
10	In Situ XAS Study of Synergic Effects on Niâ€“Co/ZrO₂ Methane Reforming Catalysts. Journal of Physical Chemistry C, 2012, 116, 2919-2926.	3.1	126
11	LaNiO3 as a precursor of Ni/La2O3 for CO2 reforming of CH4: Effect of the presence of an amorphous NiO phase. Applied Catalysis B: Environmental, 2012, 123-124, 324-332.	20.2	116
12	Study of nanostructured Ni/CeO2 catalysts prepared by combustion synthesis in dry reforming of methane. Applied Catalysis A: General, 2010, 384, 1-9.	4.3	112
13	Effect of thermal treatments on the catalytic behaviour in the CO preferential oxidation of a CuOâ€“CeO2â€“ZrO2 catalyst with a flower-like morphology. Applied Catalysis B: Environmental, 2011, 102, 627-637.	20.2	98
14	XPS Study of Interface and Ligand Effects in Supported Cu2O and CuO Nanometric Particles. Journal of Physical Chemistry B, 2005, 109, 7758-7765.	2.6	94
15	Reactivity of lanthanum substituted cobaltites toward carbon particles. Journal of Catalysis, 2008, 257, 334-344.	6.2	81
16	Room-Temperature Reaction of Oxygen with Gold: An In situ Ambient-Pressure X-ray Photoelectron Spectroscopy Investigation. Journal of the American Chemical Society, 2010, 132, 2858-2859.	13.7	79
17	Reforming of ethanol in a microwave surface-wave plasma discharge. Applied Physics Letters, 2004, 85, 4004-4006.	3.3	74
18	Oxidation state and localization of chromium ions in Cr-doped cassiterite and Cr-doped malayaite. Acta Materialia, 2003, 51, 2371-2381.	7.9	68

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19	Plasma catalysis with perovskite-type catalysts for the removal of NO and CH4 from combustion exhausts. Journal of Catalysis, 2007, 247, 288-297.	6.2	51
20	Chromium removal on chitosan-based sorbents â€“ An EXAFS/XANES investigation of mechanism. Materials Chemistry and Physics, 2014, 146, 412-417.	4.0	50
21	Study of Oxygen Reactivity in La1â^'x Sr x CoO3â^'Î´ Perovskites for Total Oxidation of Toluene. Catalysis Letters, 2012, 142, 408-416.	2.6	49
22	Cobalt Carbide Identified as Catalytic Site for the Dehydrogenation of Ethanol to Acetaldehyde. ACS Catalysis, 2017, 7, 5243-5247.	11.2	47
23	Nickel Particles Selectively Confined in the Mesoporous Channels of SBA-15 Yielding a Very Stable Catalyst for DRM Reaction. Journal of Physical Chemistry B, 2018, 122, 500-510.	2.6	45
24	X-ray Photoelectron Spectroscopy and Infrared Study of the Nature of Cu Species in Cu/ZrO2de-NOx Catalysts. Journal of Physical Chemistry B, 2002, 106, 10185-10190.	2.6	44
25	Effect of chlorine in the formation of PtRe alloys in PtRe/Al2O3 catalysts. Journal of Catalysis, 1989, 115, 567-579.	6.2	43
26	Improving the direct synthesis of hydrogen peroxide from hydrogen and oxygen over Au-Pd/SBA-15 catalysts by selective functionalization. Molecular Catalysis, 2018, 445, 142-151.	2.0	43
27	Effect of consecutive and alternative oxidation and reduction treatments on the interactions between titania (anatase and rutile) and copper. Journal of Catalysis, 1988, 113, 120-128.	6.2	42
28	Size and support effects in the photoelectron spectra of small TiO2 particles. Surface and Interface Analysis, 1992, 18, 392-396.	1.8	42
29	SnO2 thin films prepared by ion beam induced CVD: preparation and characterization by X-ray absorption spectroscopy. Thin Solid Films, 1999, 353, 113-123.	1.8	42
30	An in situ XAS study of Cu/ZrO catalysts under de-NO reaction conditions. Journal of Catalysis, 2005, 235, 295-301.	6.2	42
31	Valence and Localization of Praseodymium in Pr-Doped Zircon. Journal of Solid State Chemistry, 1998, 139, 412-415.	2.9	41
32	TEM, EELS and EFTEM characterization of nickel nanoparticles encapsulated in carbon. Journal of Materials Chemistry, 2000, 10, 715-721.	6.7	40
33	Photochemical methane partial oxidation to methanol assisted by H2O2. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 349, 216-223.	3.9	39
34	Structural characterization of partially amorphous SnO2 nanoparticles by factor analysis of XAS and FT-IR spectra. Solid State Ionics, 1999, 116, 117-127.	2.7	38
35	Preparation of nanostructured nickel aluminate spinel powder from spent NiO/Al2O3 catalyst by mechano-chemical synthesis. Advanced Powder Technology, 2012, 23, 833-838.	4.1	38
36	The effects of the NaF flux on the oxidation state and localisation of praseodymium in Pr-doped zircon pigments. Journal of the European Ceramic Society, 1999, 19, 641-648.	5.7	37

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37	Chemical and electronic characterization of cobalt in a lanthanum perovskite. Effects of strontium substitution. Journal of Solid State Chemistry, 2010, 183, 27-32.	2.9	36
38	Promotional Effect of the Base Metal on Bimetallic Auâ€“Ni/CeO₂ Catalysts Prepared from Coreâ€“Shell Nanoparticles. ACS Catalysis, 2013, 3, 2169-2180.	11.2	36
39	Redox and Catalytic Properties of Promoted NiO Catalysts for the Oxidative Dehydrogenation of Ethane. Journal of Physical Chemistry C, 2017, 121, 25132-25142.	3.1	36
40	Chemical state and distribution of Mn ions in Mn-doped Î±-Al 2 O 3 solid solutions prepared in the absence and the presence of fluxes. Journal of the European Ceramic Society, 2004, 24, 3057-3062.	5.7	35
41	Support effects on NiO-based catalysts for the oxidative dehydrogenation (ODH) of ethane. Catalysis Today, 2019, 333, 10-16.	4.4	35
42	Revealing the substitution mechanism in Eu³⁺:CaMoO₄and Eu³⁺,Na⁺:CaMoO₄phosphors. Journal of Materials Chemistry C, 2018, 6, 12830-12840.	5.5	34
43	Adsorption and oxidation of K deposited on graphite. Surface Science, 1996, 364, 253-265.	1.9	33
44	Promoting effect of Ce and Mg cations in Ni/Al catalysts prepared from hydrotalcites for the dry reforming of methane. Reaction Kinetics, Mechanisms and Catalysis, 2014, 111, 259-275.	1.7	32
45	The state of nickel in Ni/SiO2 and Ni/TiO2-calcined catalysts. Journal of Catalysis, 1992, 136, 415-422.	6.2	31
46	Bimetallic Ni-Co/SBA-15 catalysts for reforming of ethanol: How cobalt modifies the nickel metal phase and product distribution. Molecular Catalysis, 2018, 449, 122-130.	2.0	31
47	Preparation by pyrolysis of aerosols and structural characterization of Fe-doped mullite powders. Materials Research Bulletin, 2000, 35, 775-788.	5.2	30
48	Low-temperature preparation and structural characterization of Pr-doped ceria solid solutions. Journal of Materials Research, 2002, 17, 797-804.	2.6	30
49	Synchrotron Photoemission Characterization of TiO2Supported on SiO2. Langmuir, 1998, 14, 4908-4914.	3.5	29
50	Plasma Chemistry of NO in Complex Gas Mixtures Excited with a Surfatron Launcher. Journal of Physical Chemistry A, 2005, 109, 4930-4938.	2.5	29
51	Ion-Beam-Induced CVD: An Alternative Method of Thin Film Preparation. Chemical Vapor Deposition, 1997, 3, 219-226.	1.3	27
52	Characterisation of passivated aluminium nanopowders: An XPS and TEM/EELS study. Journal of the European Ceramic Society, 1998, 18, 1195-1200.	5.7	27
53	Spinodal decomposition and precipitation in Cuâ€“Cr nanocomposite. Journal of Alloys and Compounds, 2014, 587, 670-676.	5.5	26
54	Removal of NO in NO/N2, NO/N2/O2, NO/CH4/N2, and NO/CH4/O2/N2Systems by Flowing Microwave Discharges. Journal of Physical Chemistry A, 2007, 111, 1057-1065.	2.5	25

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55	Co3O4Â+ÂCeO2/SiO2 Catalysts for n-Hexane and CO Oxidation. Catalysis Letters, 2009, 129, 149-155.	2.6	25
56	Operando XAS and Raman study on the structure of a supported vanadium oxide catalyst during the oxidation of H2S to sulphur. Catalysis Today, 2010, 155, 296-301.	4.4	25
57	Analysis of Ni species formed on zeolites, mesoporous silica and alumina supports and their catalytic behavior in the dry reforming of methane. Reaction Kinetics, Mechanisms and Catalysis, 2017, 121, 255-274.	1.7	25
58	Mixed (Oxygen Ion and nâ€Type) Conductivity and Structural Characterization of Titaniaâ€Doped Stabilized Tetragonal Zirconia. Journal of the Electrochemical Society, 1999, 146, 2425-2434.	2.9	24
59	Near-ambient X-ray photoemission spectroscopy and kinetic approach to the mechanism of carbon monoxide oxidation over lanthanum substituted cobaltites. Catalysis Communications, 2009, 10, 1898-1902.	3.3	24
60	In situ study by XAS of the sulfidation of industrial catalysts: the Pt and PTReAl2O3 systems. Applied Catalysis A: General, 1997, 162, 171-180.	4.3	23
61	Contribution of the xâ€ray absorption spectroscopy to study TiO2thin films prepared by ion beam induced chemical vapor deposition. Journal of Applied Physics, 1995, 77, 591-597.	2.5	22
62	Preparation, characterization and thermal evolution of oxygen passivated nanocrystalline cobalt. Journal of Materials Chemistry, 1999, 9, 1011-1017.	6.7	22
63	Structure and chemistry of SiOx (x<2) systems. Vacuum, 2002, 67, 491-499.	3.5	22
64	Nickel catalyst with outstanding activity in the DRM reaction prepared by high temperature calcination treatment. International Journal of Hydrogen Energy, 2016, 41, 8459-8469.	7.1	22
65	Photoelectron spectroscopy of metal oxide particles: size and support effects. Vacuum, 1994, 45, 1085-1086.	3.5	20
66	Elucidating the Promotional Effect of Cerium in the Dry Reforming of Methane. ChemCatChem, 2021, 13, 553-563.	3.7	20
67	Reactivity of LaNi1âˆ'y Co y O3âˆ'Î´ Perovskite Systems in the Deep Oxidation of Toluene. Catalysis Letters, 2009, 131, 164-169.	2.6	18
68	Identification of Outer and Inner Nickel Particles in a Mesoporous Support: How the Channels Modify the Reducibility of Ni/SBAâ€15 Catalysts. ChemNanoMat, 2017, 3, 94-97.	2.8	18
69	Structural characterization of PbTiO3 thin films prepared by ion beam induced CVD and evaporation of lead. Thin Solid Films, 1996, 272, 99-106.	1.8	17
70	In situ XAS study of an improved natural phosphate catalyst for hydrogen production by reforming of methane. Applied Catalysis B: Environmental, 2014, 150-151, 459-465.	20.2	17
71	Overcoming Pdâ€“TiO₂ Deactivation during H₂ Production from Photoreforming Using Cu@Pd Nanoparticles Supported on TiO₂. ACS Applied Nano Materials, 2021, 4, 3204-3219.	5.0	17
72	Plasma catalysis over lanthanum substituted perovskites. Catalysis Communications, 2007, 8, 1739-1742.	3.3	16

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73	Understanding the differences in catalytic performance for hydrogen production of Ni and Co supported on mesoporous SBA-15. Catalysis Today, 2018, 307, 224-230.	4.4	16
74	Amorphisation and related structural effects in thin films prepared by ion beam assisted methods. Surface and Coatings Technology, 2000, 125, 116-123.	4.8	15
75	Structural and surface considerations on Mo/ZSM-5 systems for methane dehydroaromatization reaction. Molecular Catalysis, 2020, 486, 110787.	2.0	15
76	In situ EXAFS studies of modifications to supported metallic catalysts under reactive atmospheres. Catalysis Letters, 1993, 20, 1-13.	2.6	14
77	Generation of homogeneous rhodium particles by photoreduction of rhodium(III) on titania colloids grafted on silica. Langmuir, 1993, 9, 121-125.	3.5	14
78	XAS and XRD structural studies of titanium oxide thin films prepared by ion beam induced CVD. Thin Solid Films, 1994, 241, 175-178.	1.8	14
79	Structureâ€“electrical properties relationships in TiO2-doped stabilized tetragonal zirconia ceramics. Ceramics International, 1999, 25, 639-648.	4.8	12
80	Influence of Al2O3 reinforcement on precipitation kinetic of Cuâ€“Cr nanocomposite. Thermochimica Acta, 2011, 526, 222-228.	2.7	12
81	Experimental set-up for in-situ X-ray absorption spectroscopy analysis of photochemical reactions: the photocatalytic reduction of gold on titania. Journal of Photochemistry and Photobiology A: Chemistry, 1994, 78, 169-172.	3.9	11
82	Structure and electrical behavior in air of TiO 2 -doped stabilized tetragonal zirconia ceramics. Applied Physics A: Materials Science and Processing, 1999, 68, 41-48.	2.3	11
83	Characterization of nanophase Alâ€oxide/Al powders by electron energyâ€loss spectroscopy. Journal of Microscopy, 1998, 191, 212-220.	1.8	10
84	Plate reactor for testing catalysts in the form of thin films. Applied Catalysis B: Environmental, 2001, 31, L5-L10.	20.2	10
85	Acicular Metallic Particles Obtained from Al-Doped Goethite Precursors. Chemistry of Materials, 2003, 15, 951-957.	6.7	10
86	Unraveling the Mo/HZSM-5 reduction pre-treatment effect on methane dehydroaromatization reaction. Applied Catalysis B: Environmental, 2022, 312, 121382.	20.2	10
87	In situ EXAFS study of the effect of hydrocarbon deposition over Pt/Al2O3and Ptâ€“Re/Al2O3catalysts. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 159-164.	1.7	9
88	Structural modifications produced by the incorporation of Ar within the lattice of Fe2O3 thin films prepared by ion beam induced chemical vapour deposition. Acta Materialia, 2000, 48, 4555-4561.	7.9	9
89	Structural and chemical reactivity modifications of a cobalt perovskite induced by Sr-substitution. An in situ XAS study. Materials Chemistry and Physics, 2015, 151, 29-33.	4.0	8
90	Preferential oxidation of CO on a La-Co-Ru perovskite-type oxide catalyst. Catalysis Communications, 2017, 92, 75-79.	3.3	8

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91	Elucidating the nature of Mo species on ZSM-5 and its role in the methane aromatization reaction. Reaction Chemistry and Engineering, 2021, 6, 1265-1276.	3.7	8
92	Synthesis and Structural Characterization by Xâ€ray Absorption Spectroscopy of Tinâ€Ðoped Mullite Solid Solutions. Journal of the American Ceramic Society, 2002, 85, 1910-1914.	3.8	7
93	In situ spectroscopic characterization of some LaNi1-xCoxO3 perovskite catalysts active for CH4 reforming reactions. Materials Research Society Symposia Proceedings, 2012, 1446, 73.	0.1	1
94	Research on properties and catalytic behaviour in CO hydrogenation at atmospheric and high pressure of bimetallic systems (10%Coâ€‰+â€‰0.5%Pd)/TiO2 (Al2O3). Reaction Kinetics, Mechanisms and Catalysis, 2022, 135, 589.	1.7	0