JosÃ© Antonio PÃ©rez Omil

List of Publications by Year
in descending order

48 papers	1,640 citations	236925 25 h-index	289244 40 g-index
50 all docs	50 docs citations	50 times ranked	2118 citing authors

#	Article	IF	Citations
1	Some contributions of electron microscopy to the characterisation of the strong metalâ€“support interaction effect. Catalysis Today, 2003, 77, 385-406.	4.4	181
2	The interpretation of HREM images of supported metal catalysts using image simulation: profile view images. Ultramicroscopy, 1998, 72, 135-164.	1.9	154
3	Hydrogen chemisorption on ceria: influence of the oxide surface area and degree of reduction. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 3499.	1.7	138
4	Redox Behavior of Thermally Aged Ceriaâˆ’Zirconia Mixed Oxides. Role of Their Surface and Bulk Structural Properties. Chemistry of Materials, 2006, 18, 2750-2757.	6.7	63
5	Lanthanide salts as alternative corrosion inhibitors. Journal of Alloys and Compounds, 1995, 225, 638-641.	5.5	57
6	A new approach to the ferritin iron core growth: influence of the H/L ratio on the core shape. Dalton Transactions, 2012, 41, 1320-1324.	3.3	55
7	Critical Influence of Nanofaceting on the Preparation and Performance of Supported Gold Catalysts. ACS Catalysis, 2015, 5, 3504-3513.	11.2	53
8	Image simulation and experimental HREM study of the metal dispersion in Rh/CeO2 catalysts. Influence of the reduction/reoxidation conditions. Applied Catalysis B: Environmental, 1998, 16, 127-138.	20.2	50
9	Highly stable ceria-zirconia-yttria supported Ni catalysts for syngas production by CO 2 reforming of methane. Applied Surface Science, 2017, 426, 864-873.	6.1	46
10	The effect of Ni in Pdâ€“Ni/(Ce,Zr)O/AlO catalysts used for stoichiometric CO and NO elimination. Part 1: Nanoscopic characterization of the catalysts. Journal of Catalysis, 2005, 235, 251-261.	6.2	44
11	Rational design of nanostructured, noble metal free, ceriaâ€“zirconia catalysts with outstanding low temperature oxygen storage capacity. Journal of Materials Chemistry A, 2013, 1, 4836.	10.3	42
12	Reducibility of ceriaâ€“lanthana mixed oxides under temperature programmed hydrogen and inert gas flow conditions. Journal of Alloys and Compounds, 1997, 250, 449-454.	5.5	41
13	Some major aspects of the chemical behavior of rare earth oxides: An overview. Journal of Alloys and Compounds, 2006, 408-412, 496-502.	5.5	39
14	First Stage of Thermal Aging under Oxidizing Conditions of a Ce_{0.62}Zr_{0.38}O₂ Mixed Oxide with an Ordered Cationic Sublattice: A Chemical, Nanostructural, and Nanoanalytical Study. Chemistry of Materials, 2008, 20, 5107-5113.	6.7	37
15	Preparation and characterization of Ceï£¿Mnï£¿O composites with applications in catalytic wet oxidation processes. Surface and Interface Analysis, 2004, 36, 752-755.	1.8	36
16	Structural Surface Investigations of Ceriumâˆ’Zirconium Mixed Oxide Nanocrystals with Enhanced Reducibility. Journal of Physical Chemistry C, 2007, 111, 9001-9004.	3.1	36
17	Combined HREM and HAADF Scanning Transmission Electron Microscopy:Â A Powerful Tool for Investigating Structural Changes in Thermally Aged Ceriaâˆ’Zirconia Mixed Oxides. Chemistry of Materials, 2005, 17, 4282-4285.	6.7	35
18	Bridging the Gap between CO Adsorption Studies on Gold Model Surfaces and Supported Nanoparticles. Angewandte Chemie - International Edition, 2010, 49, 1981-1985.	13.8	35

#	Article	IF	Citations
19	Influence of the nature of the metal precursor salt on the redox behaviour of ceria in Rh/CeO2 catalysts. Studies in Surface Science and Catalysis, 1995, 96, 419-429.	1.5	34
20	The role of the carbonaceous deposits in the Catalytic Wet Oxidation (CWO) of phenol. Catalysis Communications, 2006, 7, 639-643.	3.3	34
21	Some recent results on the correlation of nano-structural and redox properties in ceria-zirconia mixed oxides. Journal of Alloys and Compounds, 2008, 451, 521-525.	5.5	32
22	Imaging Nanostructural Modifications Induced by Electronic Metalâˆ'Support Interaction Effects at Au||Cerium-Based Oxide Nanointerfaces. ACS Nano, 2012, 6, 6812-6820.	14.6	29
23	Title is missing!. Catalysis Letters, 2001, 76, 131-137.	2.6	27
24	Comparative study of the reducibility under H2 and CO of two thermally aged Ce0.62Zr0.38O2 mixed oxide samples. Catalysis Today, 2009, 141, 409-414.	4.4	27
25	Chemical Imaging at Atomic Resolution as a Technique To Refine the Local Structure of Nanocrystals. Angewandte Chemie - International Edition, 2011, 50, 868-872.	13.8	27
26	Rare-earth oxides with fluorite-related structures: their systematic investigation using HREM images, image simulations and electron diffraction pattern simulations. Ultramicroscopy, 1999, 80, 19-39.	1.9	25
27	The effect of reaction conditions on the apparent deactivation of Ceâ€"Zr mixed oxides for the catalytic wet oxidation of phenol. Catalysis Today, 2012, 180, 25-33.	4.4	25
28	Ceria-supported Auâ€"CuO and Auâ€"Co 3 O 4 catalysts for CO oxidation: An 18 O/ 16 O isotopic exchange study. Applied Catalysis B: Environmental, 2015, 168-169, 87-97.	20.2	25
29	CeO2-modified Au/TiO2 catalysts with outstanding stability under harsh CO oxidation conditions. Applied Catalysis B: Environmental, 2016, 197, 86-94.	20.2	25
30	Improving the Redox Response Stability of Ceria-Zirconia Nanocatalysts under Harsh Temperature Conditions. Chemistry of Materials, 2017, 29, 9340-9350.	6.7	21
31	Speciation-controlled incipient wetness impregnation: A rational synthetic approach to prepare sub-nanosized and highly active ceriaâ€"zirconia supported gold catalysts. Journal of Catalysis, 2014, 318, 119-127.	6.2	20
32	Study of the reduction/reoxidation cycle in a La/Ce/Tb mixed oxide. Journal of Alloys and Compounds, 1994, 207-208, 196-200.	5.5	16
33	Contributions of Electron Microscopy to Understanding CO Adsorption on Powder Au/Ceriaâ€"Zirconia Catalysts. Chemistry - A European Journal, 2010, 16, 9536-9543.	3.3	16
34	Electron Microscopy Investigations of Nanostructured Ce/Mn Oxides for Catalytic Wet Oxidation. Journal of Physical Chemistry C, 2010, 114, 8981-8991.	3.1	16
35	Advanced Electron Microscopy Investigation of Ceriaâ€"Zirconiaâ€Based Catalysts. ChemCatChem, 2011, 3, 1015-1027.	3.7	16
36	Critical Influence of Redox Pretreatments on the CO Oxidation Activity of BaFeO3â˜'Î´ Perovskites: An in-Depth Atomic-Scale Analysis by Aberration-Corrected and in Situ Diffraction Techniques. ACS Catalysis, 2017, 7, 8653-8663.	11.2	13

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37	An atomically efficient, highly stable and redox active Ce0.5Tb0.5Ox (3% mol.)/MgO catalyst for total oxidation of methane. Journal of Materials Chemistry A, 2019, 7, 8993-9003.	10.3	12
38	Preparation of Rhodium/Ce<i>_x</i>Pr₁₋<i>_x</i>O₂ Catalysts:â€‰ A Nanostructural and Nanoanalytical Investigation of Surface Modifications by Transmission and Scanning-Transmission Electron Microscopy. Journal of Physical Chemistry C, 2008, 112, 5900-5910.	3.1	11
39	A novel procedure for accurate estimations of the lattice parameter of supported nanoparticles from the analysis of plan view HREM images: Application to the structural investigation of Pd/CeO2 catalysts. Catalysis Today, 2012, 180, 174-183.	4.4	11
40	Strain Field in Ultrasmall Gold Nanoparticles Supported on Cerium-Based Mixed Oxides. Key Influence of the Support Redox State. Langmuir, 2016, 32, 4313-4322.	3.5	10
41	Improving the Activity and Stability of YSZ-Supported Gold Powder Catalyst by Means of Ultrathin, Coherent, Ceria Overlayers. Atomic Scale Structural Insights. ACS Catalysis, 2019, 9, 5157-5170.	11.2	6
42	Characterization of silica dispersed lanthana by CO2 adsorption. Journal of Alloys and Compounds, 1994, 207-208, 201-205.	5.5	5
43	Computer image HRTEM simulation of catalytic nanoclusters on semiconductor gas sensor materials supports. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 91-92, 534-536.	3.5	5
44	Improving the reducibility of CeO₂/TiO₂ by high-temperature redox treatment: the key role of atomically thin CeO₂ surface layers. Journal of Materials Chemistry A, 2022, 10, 13074-13087.	10.3	5
45	TEM Investigation of the Synthesis of Rh/CePrOx Catalysts. Microscopy and Microanalysis, 2006, 12, 760-761.	0.4	1
46	3D characterization and metrology of nanostructures by electron tomography. Microscopy and Microanalysis, 2008, 14, 284-285.	0.4	1
47	TEM (HREM) and STEM (HAADF/EDS) Study of the Metallic Dispersion in Supported Ruthenium Catalysts. Microscopy and Microanalysis, 2006, 12, 810-811.	0.4	0
48	Analysis and application of the theories that rationalize the crystalline structures of fluorite-related rare earth oxides. Catalysis Today, 2012, 180, 161-166.	4.4	0